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CREATING RESILIENT, SUSTAINABLE LOCAL GOVERNMENTS: MERGING HUMAN RESOURCE MANAGEMENT AND EMERGENCY MANAGEMENT

By

Stacey Cole Mann

A Dissertation
Submitted to the Faculty of Mississippi State University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Public Policy and Administration in the Department of Political Science and Public Administration

Mississippi State, Mississippi
December 2011
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By

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MERGING HUMAN RESOURCE MANAGEMENT
AND EMERGENCY MANAGEMENT

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In the aftermath of Hurricane Katrina, Goodman and Mann (2008) found that many locales along the Mississippi Gulf Coast did not have plans that addressed human resources (HR) issues in the aftermath of a disaster, and many vital employees were not included in the emergency planning process. The authors concluded that if involved in planning, HR managers could address typical HR issues such as compensation, retention, recruitment, and task re-orientation that become more difficult following a disaster.

The purpose of this study was to examine the level of involvement of HR departments in the emergency planning process as well as the characteristics of cities that include HR personnel in this type of planning. This study highlights some of the common HR issues included in local government emergency plans as well as the characteristics of cities that have addressed these issues. A nationwide study of HR directors revealed that while most local governments include HR departments in emergency planning, the extent of this involvement varies. In addition, many HR professionals stated that some areas, such as compensation, discipline, and termination, need further attention, and that guidelines regarding important human resource issues should be established for local
governments nationwide. Because this study is one of the first to examine the role of human resource professionals in local government emergency planning, it serves as a foundation for future research on the impacts of human resource involvement in emergency planning, and also for governments at all levels to consider how areas that are often daily routines may become difficult during times of crisis. Finally, this study provides a starting point for the creation of guidelines for important areas of human resource management that should be considered as local governments continue to build resilient, sustainable communities.
DEDICATION

To my husband and true love, Will,

who, every last minute, offers love, patience, and support.

It is because of you that I finally accomplished this goal.
ACKNOWLEDGEMENTS

The old saying “It takes a village to raise a child” can also apply to completing a dissertation. When I think of those who both directly and indirectly helped with this project, I realize that I could fill more pages thanking family, friends, colleagues, and professors than it took to complete this dissertation.

However, I would like to begin with my committee, all of whom had a profound impact not only on my life as a student, but my life as a teacher and future professor. I would first like to thank Dr. Marty Wiseman, who, no matter how busy he may be, will never turn down serving on a dissertation committee. Not only did Dr. Wiseman agree to serve as a committee member, but he is also the person who made the survey possible. Thank you, Dr. Wiseman, and the staff of the John C. Stennis Institute of Government for assisting me with this project. I especially want to thank Keisha Perry, Tyson Elbert, and Mark Duncan, who put anything and everything aside when I called for help.

Secondly, I would like to thank Dr. Bethany Stich for all of the years she has worked with me. Thank you for your time and dedication to this project.

Next, I would like to thank Dr. Rick Travis, who embodies every characteristic of the word “teacher.” Thank you, Dr. Travis, for your patience and dedication, and for laughing with me when I could not grasp the world of quantitative research. I can truly say that you are the best teacher I have ever had.

To my mentor and very dear friend, Dr. Doug Goodman, who, although he left the University and even the state, could not get rid of me. To say that you have had a major
impact on my life as a student and future professor is certainly an understatement. It is because of your willingness to teach, mentor, and guide me that I have had success through this program. If it were not for you, I would not have found my way. I will forever be grateful to you, Shelly, and the entire Goodman family for your dedication and loyalty. Thank you.

Finally, I would like to thank Dr. P. Edward (Eddie) French. In October 2009, at SECoPA in Orlando, Florida, I sat next to you on a panel. Within five minutes, I felt as if we were old friends. I knew you would be the perfect fit on my committee, and when you moved into the position as the head, I had absolutely no concerns. I do not think you will ever know what an amazing man you are. Your dedication, flexibility, and support are all characteristics that I hope to offer my students in the future. This process was made easier because of you, and I am forever grateful for your guidance. I am a better person for knowing you, Amy, and Amanda, and I thank you all.

To Dr. Steve Shaffer, thank you for constantly greeting me with a smile, taking more than a few moments to chat, and always, without fail, praising my efforts. Dr. Jerry Emison, Dr. Rob Mellen, and Dr. Mary McThomas were outstanding professors who significantly contributed to my education and future career. During my long tenure as a student, the faculty, staff (Jodie Shappley, Tracy Britt, and Quintara Miller) and department heads (Dr. Dave Breaux, Dr. Rick Travis, and Dr. K.C. Morrison) in the Department of Political Science and Public Administration were more supportive than any student could ask for. And thanks to my very special friends and classmates – Jody Holland, Will Hatcher, Natalie Fussell, Erin Holmes, Tonya Neaves, Kenna Walsh, and Terri Dickinson. Special thanks, of course, goes to my wingman and partner in temps crime – Roberto Gallardo – thank you for helping me through the process and for being
an incredible friend! And, to Steve Condrey, a very special man who supported me as if I were one of his own students – thank you so much.

Of course I cannot forget my other life in the Department of Communication. McComas Hall quickly became home and I could not have imagined MSU without that family. I would especially like to thank Dr. John Forde, who is by far the best department head on the MSU campus; I cannot begin to explain the extent of my gratitude for the innumerable acts of kindness and support you offered through the years. And, of course, to my friends Anne Harris, Donna Blair, Myra Keasler, and Emily Cain, who were sisters, friends, mothers, counselors, and overall voices of reason and sanity. Special thanks also must be given to my dear friend Dr. Hank Flick, who every day made me giggle. To the Communication faculty, thank you for being an amazing family.

Also, to my favorite man on campus, the embodiment of all that is Mississippi State University, my dear ole’ geezer, Dr. Tom Carskadon — the kid misses you already.

To three very special men, my father, Neil “PeeWee” Cole; my cousin, Jeremy Evans; and my oldest, best friend in the world, Jed Davis — my life is not the same without you.

I also want to thank my mother for offering unconditional love and support at every moment; my stepfather for teaching me discipline and determination; my grandmothers, for teaching me to embrace every day with happiness; the Manns and the Spiveys, especially, my in-laws Ricky and Emily Mann, and Eliza “Great DeDe” Spivey, for unconditional love, support, and patience; to my cousin, Brian, who is truly one of the best friends I’ve ever had; and to all of my family, each of whom I cherish.

Finally, to my husband, Will, the most amazing man I’ve ever known, and to my most cherished angel, Chloe Rhee, who makes every day the most special.
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CHAPTER I
THE PATHWAY TO EFFICIENCY AND EFFECTIVENESS IN DISASTER MANAGEMENT: BRIDGING HUMAN RESOURCES AND EMERGENCY MANAGEMENT FOR EMERGENCY PLANNING

From 1980 through 2008, the United States faced 90 weather-related disasters whose damage exceeded $1 billion, with the total cost of all events over $700 billion (NCDC and NOAA 2009). In 2008 alone, droughts, hurricanes, floods, and tornadoes caused over $56 billion in damages. However, as Americans witnessed after Hurricane Katrina in 2005, not all damages are a direct result of weather-related events. Some disasters become catastrophes when humans fail to plan for as well as appropriately respond to a crisis.

In the aftermath of Hurricane Katrina, Goodman and Mann (2008) found that many locales along the Mississippi Gulf Coast did not include a formal plan for how to handle personnel in the aftermath of a disaster. In addition, many vital employees were not included in the emergency planning stages. As Mississippi locales recovered from Katrina, one lesson many city and county administrators said they learned was the importance of creating a plan for human resources issues in the aftermath of disaster. Goodman and Mann (2008) suggested that by including human resource (HR) managers in the planning process, locales could make better use of employees’ skills in preparing, responding, and recovering from disasters.
The purpose of this dissertation is to examine the level of involvement of human resource departments in the emergency planning process at the local government level. The theoretical foundation of the study will be built upon merging components of Strategic Human Resource Management (SHRM) with emergency preparedness, the second phase of emergency management. The study will begin with a brief history of emergency management since 9/11, followed by a discussion of the new focus on sustainability and resilience, and finally, a brief discussion of human resource management and its importance in emergency planning.

Although the majority of human resource professionals that were surveyed in February 2011 have reported some involvement with emergency planning in their local governments, the functions and issues that are addressed in plans vary. While many address some compensation policies, task-reorientation of essential employees, and mutual aid agreements with other locales, other issues remained unaddressed, particularly labor shortages, employee absenteeism, and task re-orientation of non-essential personnel. Many also reported that communication regarding preparedness is somewhat lacking as well as plans for handling information technology problems that often come with disasters.

Thus, merging emergency planning with SHRM could prove to be an effective technique for better preparing local governments for times of crisis. However, the necessity of strategic planning in human resource management for times of crisis can be better understood by first understanding the history of emergency management in the United States and the roles of federal, state, and local governments.
Emergency Management in the United States since September 11, 2001

Since the attacks on the World Trade Center in 2001 and the devastation that resulted from Hurricane Katrina in 2005, attention on emergency management has increased. As a result of the Post-Katrina Emergency Management Act of 2006, the federal government increased funding for state and local governments to focus on improving preparedness through strategic plans. In addition, greater attention on assessing capabilities to improve preparedness and response has become a priority. For example, the National Preparedness System was created by the Department of Homeland Security to assess state capabilities, and from 2006-2008, the system was pilot-tested in 10 states. However, the system proved to be both ineffective and time-consuming, and after spending approximately $15 million, the project was discontinued (GAO 2009).

However, the main focus of the federal government in preparedness efforts remains the same and that is for state and local governments to “develop a comprehensive assessment system to assess the nation’s prevention capabilities and overall preparedness” (GAO 2009, 16). To do so, the National Response Plan called for the Federal Emergency Management Agency (FEMA) “to partner and coordinate with key stakeholders including other DHS components as well as other federal, state, and local entities” (GAO 2009, 23).

Thus, increased attention on preparedness also often results in greater emphasis on intergovernmental coordination and relationships among all levels of government. Because disasters do not adhere to geographical or cultural boundaries, intergovernmental cooperation among cities, counties, and states, as well as among departments, organizations, and agencies allows for not only quicker response, but also the ability to assess all capabilities available to a region (Caruson and MacManus 2008).
When a negative incident occurs, the local government is the first to respond. If the incident exceeds their capabilities, the state is asked to assist. If local and state governments are aware of the capabilities that are available to them within their region, those resources may prove to be valuable commodities in times of catastrophe.

When both the local and state governments are unable to respond effectively, the governor can request the assistance of the federal government. Responsibility for response and recovery always begins at the local level, but as was the case with Hurricane Katrina, the lines of control and authority are not always clear. As Schneider (2008) indicates:

All three levels of government are supposed to participate as partners, rather than superiors and subordinates, in the nation’s preparedness and response system. . . All three levels of government should work together to provide emergency relief and assistance to disaster-stricken citizens. Thus, the effectiveness of the entire response depends heavily upon intergovernmental communication and cooperation. (721-722)

While Hurricane Katrina in 2005 exemplified how three levels of government can work against one another, Hurricane Gustav in 2008 provided an opportunity for all three levels of government to improve their intergovernmental relationships. In fact, Mann (2009) found that the mayor of New Orleans, the governor of Louisiana, and the secretary of the Department of Homeland Security, as a representative of the president, coordinated their efforts effectively and made cooperation a priority as Gustav approached the Louisiana coast. Efforts at all three levels were focused on not only improving the relationships, but also ensuring clear and open communication.

Because the public is more attentive of disasters and the politics surrounding them than any other policy issue (Schneider 2008), it is important to have open lines of
communication not only among the three levels of government, but also among the
departments within each level. As Caruson and MacManus (2006) argued:

One of the most important lessons we have learned from
the events of 9/11 is the importance of coordination among
governmental agencies and organizations that are
responsible for disaster management . . . Government
officials at all levels must find a way to coordinate their
activities in a more efficient and effective manner. (522)

The 9/11 terrorist attacks and Hurricane Katrina both highlighted weaknesses in
intergovernmental relationships, and as a result, state and federal legislation prompted
improvements of organizational structures along with preparedness efforts. The National
Response Plan, the National Incident Management System, and the National
Preparedness Goal focused on providing standards for local and state governments to
create plans with enough flexibility to address response activities that are specific to their
locale. The standardized plans also offer direction on how locales can begin to build
relationships with other departments, agencies, and governments for times of crisis,
which often become hectic and stressful (Caruson and MacManus 2006).

As Kapucu (2009) argues, “Organizations tend to move to higher levels of
complexity in emergencies, largely through interorganizational networks” (4). And, as
these networks become more complex, organizations cannot depend on one individual,
department, or agency to understand the full nature or impact of an adverse event
(Kapucu 2009). Thus, strong relationships among departments are crucial in times of
disaster, especially in local governments, which are responsible for first response. The
ability to communicate clearly, respond quickly, and adapt to the changing and complex
environments that are characteristic of crises allow local governments the ability to better
withstand the impact of a disaster.
Sustainability and Resilience: Building Stronger Communities

As a result of increased attention on preparedness and response both in homeland security and emergency management, the terms sustainability and resilience have become the focus of all levels of government. Sustainability is defined as “the effective use of resources — natural, human, and technological — to meet today’s community needs while ensuring that these resources are available to meet future needs” (Geis and Kutzmark 1995, under “The Future Is Now). Sustainability is important to communities because socioeconomic, technological, and global forces influence the effects of the disaster. Specifically, limited resources, urbanization, technology, social awareness, and health and safety imperatives can help or hinder the impact of an adverse event. “Local governments will need to understand these forces and to move one step ahead, using this knowledge to maximize the planning and development process and to improve the places in which we live” (Geis and Kutzmark 1995, under “The Future Is Now”). In addition, the authors state:

An integral relationship exists between how a community is planned and developed — its form, configuration, and use — and its capacity to meet its social, environmental, and economic needs. Community form, which represents the needs and priorities of the community, directly influences community capacity to sustain itself into the future (Under The Future is Now, paragraph 29) . . . . [and] rather than trying to define sustain-ability, local governments should instead begin to envision it. This approach allows the concept to remain flexible and applicable to a community’s unique qualities. Out of that vision come the goals and priorities of the community, which represent the needs it must meet through its planning and development process (Under Envisioning the Future, paragraph 1) . . . . A sustainable community formulates goals that are rooted in a respect for both the natural environment and human nature and that call for the use of technology in an appropriate way to serve both of these resources. Without this important principle, failure is guaranteed, and with that
principle go the fundamental characteristics of a sustainable community. (Under Envisioning the Future, paragraph 4)

However, to ensure sustainability within a community, resilience also must be a focus of mitigation and preparedness efforts. Cutter et al. (2010) define resilience as “a set of capacities that can be fostered through interventions and policies, which in turn help build and enhance a community’s ability to respond and recover from disasters” (2).

By identifying and assessing the resources available to a community and then fostering the improvement and efficient use of those resources, local governments and their communities can enhance their ability to effectively withstand and respond to crises.

Also, by understanding a community’s assets, the vulnerabilities and weaknesses also can be identified and addressed.

Cutter et al. (2010) identified four areas of resilience that local governments should identify in their development of emergency plans. Social resilience refers to the demographics of a community and its effect on resilience in times of crisis. Pais and Elliott (2008) state that in times of normalcy, social systems are harder to understand than in times of crisis when extreme disruptions reveal the characteristics of social groups and networks in a geographic area. Demographics factors often have a direct impact on resilience of a community. For example, “communities with higher levels of educational equality, and those with fewer elderly, disabled residents, and non-native English speaking residents likely exhibit greater resilience” (Cutter et al. 2010, 8). Many times, greater resilience is due to greater economic and social advantages, where the latter group of citizens tends to be on more fixed, rigid incomes, which can hamper disaster-related efforts such as evacuation. However, when disasters do occur, communities are able to learn their strengths and weaknesses, which can positively affect resilience.
A second type of resilience is economic resilience, which is defined as “the ability or capacity of a system to absorb or cushion against damage or loss” (Rose and Liao 2005, 78). Economic resilience “measures the economic vitality of communities” and considers average incomes, employment rates, diversity of economic base, among other characteristics (Cutter et al. 2010, 8). Economic resilience is important to a community because the financial resources a local government has often influences the amount of money they are able to spend on mitigation and preparedness programs, which directly affects response and recovery. Also, if an area is diversified in its business sector, that is, the varieties of businesses that are housed in a community, the area may be more financially stable. For example, if a community has a presence of manufacturers, banking, retail, and agriculture, it is more likely to rebound quicker from an adverse event than one that relies solely on a single business sector, such as agriculture (Sherrieb, Norris, and Galea 2010). Economic resilience allows not only local governments the ability to recover quickly, but also citizens.

Infrastructural resilience, a third type of resilience, refers to a community’s basic structures as well as its public services and systems. Infrastructural resilience includes “an appraisal of community response and recovery capacity” as well as “an overall assessment of the amount of private property that may be particularly vulnerable to sustaining damage and likely economic losses” (Cutter et al. 2010, 9). Dauphin Island, Alabama is an example of a residential area that has very low infrastructural resilience. For example, the island has only two methods of access – a ferry from Fort Morgan, Alabama, or the Dauphin Island Bridge, a $38 million bridge that was built in 1979 as a result of Hurricane Frederic (Pilkey and Young 2005). A barrier island off the coast of Alabama, Dauphin Island serves as both a residential area and vacation destination that is
isolated from the nearby city of Mobile (Froede 2006). Thus, in the event of a hurricane, both the force of the winds and the storm surge are threats to the 13-mile island and its residential and business developments. Mandatory evacuations are common. Because of its isolated location, Dauphin Island is characterized as having low infrastructural resilience. As explained by Cutter et al. (2010), because the community is “accessible by a two-lane bridge” and is isolated from other areas, in times of emergencies such as a hurricane, the area would be “dependent upon costly airlifts and boatlifts for supplies until an alternate route or temporary bridge was constructed” (9). However, it is often following major disasters that local governments increase infrastructural resilience by instituting mitigation strategies and passing stricter building codes and planning and zoning laws, or in some cases, limiting construction.

Finally, a fourth type of resilience is institutional resilience, which “is affected by the capacity of communities to reduce risk, to engage local residents in mitigation, to create organizational linkages, and to enhance and protect the social systems within a community” (Cutter et al. 2010, 8). Following Hurricane Katrina, it became evident that many mistakes in planning were made by local governments. For instance, not only was there a delay in calling for a mandatory evacuation of the city, but the absence of a plan to help evacuees without transportation led to a major crisis when the number of residents needing emergency shelter exceeded the city’s capabilities (Mann 2009; Baker and Refsgaard 2007). However, three years later, as Hurricane Gustav approached the Louisiana coast, the lessons learned during Katrina were clear when the local government took a proactive role in preparing the city for a potential disaster (Mann 2009). Thus, adaptive management, or the ability to learn from an experience and change policies as a
result of that learning, gave the New Orleans local government the opportunity become more resilient (Baker and Refsgaard 2007).

An important point to remember is that resilience and sustainability can help communities in all types of emergencies. Building a resilient, sustainable local government can allow communities to overcome the smallest emergency or the greatest catastrophe. However, because words such as emergency, disaster, and catastrophe are often subjective, it is important to explain the difference between each. An emergency is defined as, “unforeseen but predictable, narrow-scope incidents that regularly occur” as well as “a future event that is expected to cause significant damage and disruption” (Perry and Lindell 2007, 3). Emergencies could include a major traffic accident that has occurred or a tsunami that may possibly occur.

Disasters, on the other hand, “seriously disrupt social routines, cause adoption of unplanned actions to adjust to the disruption, are designated in social space and time, and endanger valued social objects” (Perry and Lindell 2007, 3). The eruption of Mt. St. Helen’s in Washington in 1980 and the impact of Hurricane Andrew in Florida in 1992 are examples of disasters. In addition, for much of this study, an incident may be labeled as such if it received a presidential disaster declaration, which results in “special provisions in government and law to provide special functions, resources, and benefits” (196).

Finally, a catastrophe is “a large scope of impact event that crosses multiple communities, produces very high levels of damage and social disruption, and sharply and concurrently interrupts community and lifeline services” (Perry and Lindell 2007, 4). A catastrophe is so extensive that even the best preparedness and response plans are not as
effective. Catastrophes are rare, and less common than disasters, which are less common than emergencies (Perry and Lindell 2007).

However, no matter the level of crisis, as stated by Siebert (2006), “Adapting to new circumstances is the key to survival in all nature” (2). Thus, local governments that learn from past mistakes and are able to adapt to new situations as they arise would contribute not only to resilience, but also sustainability. As Perry and Mankin (2005) state, “the ability of governments to function effectively immediately after natural disasters has positive outcomes for victims as well as for governance itself” (176).

**Human Resource Management and Emergency Planning**

An important aspect of institutional resilience is to coordinate the efforts of departments so that all aspects of the organization are considered when planning for disasters. At no time is organizational success more important than during times of crisis, and, although most local governments do have an emergency plan in place, many do not address HR issues, which are vital in all emergencies. While an actual disaster often creates problems, the social response can either complicate or simplify matters (McEntire 2001). The obligation of local governments is to protect the communities they serve, and identifying ways to decrease the impact of disasters ranks as a top priority. As French, Goodman, and Stanley (2008) argue, “No local government is immune from the effects of an unforeseen natural disaster such as a tornado, hurricane, earthquake, or flood, [and] the ultimate goal for city officials when such an event occurs is to minimize interruptions of local government operations” (68).

Responding to a disaster requires human resources, making it all the more important for HR professionals to be involved in the planning process. Including
individuals who understand the KSAs that are available to local government as well as human resource issues as a whole allows for a more comprehensive approach not only to preparedness, but also response and recovery. For example, in the aftermath of Hurricane Katrina, many local governments on the Mississippi Gulf Coast explained that the workforce was limited due to evacuations and limited housing, and that the workforce that was available turned to the private sector because jobs offered higher rates of pay (Goodman and Mann 2008). Cities were at a loss in the HR areas of recruitment, retention, and compensation, and for the employees that were available, HR staff could have helped in task re-orientation. In times of disaster, local governments need all of their employees to move from a quick response to a quick recovery. Just as a planner for the New Orleans energy company, Entergy, said about his business, local government in times of a disaster also “is a job that requires 24/7 service to our customers…We need all the people we have” (Marquez 2005, 2).

Assessing the problems and risks associated with a community should be a task that involves all departments in local government because each has a distinct perspective on the knowledge, skills, and abilities that need to be acquired to effectively respond. By recognizing the gaps in knowledge, potential vulnerabilities can be identified. FEMA (1993) instructs businesses to “analyze capabilities and hazards,” which requires “gathering information about capabilities and about possible hazards and emergencies, and then conducting a vulnerability analysis to determine the facility’s capabilities for handling emergencies” (11). In addition, an organization should identify internal resources and capabilities that include areas such as personnel, equipment, and information technology systems for payroll and inventory, for example. External resources also should be analyzed, which should include organizations outside of local
government that are pertinent to response and recovery such as community volunteer organizations and contractors (FEMA 1993).

From an HR perspective, after Hurricane Katrina, many local governments realized their city emergency management plans (CEMPs) did not address human resource issues before, during, and after a disaster, and many did not include HR managers in the planning process (Goodman and Mann 2008; French, Goodman, and Stanley 2008). However, as part of an emergency planning team, HR professionals could identify specific human resource issues that could be both assets and problems in times of crisis. Not only can HR representatives offer insight on the various knowledge, skills, and abilities (KSAs) that are available from among a locale’s employees, but they also can offer strategic management advice on how to best use those KSAs in relation to each of these factors in the event of a disaster.

However, the literature on public human resource management in times of crisis is very limited (French, Goodman, and Stanley 2008; Goodman and Mann 2008; Goodman, French, Mann 2010). Yet, when contacted about this study, many human resource professionals responded both through emails and completion of the survey that more information on the topic as well as guidelines that address important HR activities would make a positive impact on local government emergency plans.

The first step in assisting local governments with an HR emergency plan is investigating current practices, or lack thereof. To begin this task, this study explores the level of involvement of human resources professionals in emergency planning in cities with a population of 50,000 to 249,999. Because many public HR departments are included as partners in the local government strategic planning process, understanding the
components of HR that are important in disastrous events will give the organization a new perspective in planning.

Chapter 2 will offer an overview of human resource reforms in the United States and explain how the transformation of the HR office has created a professional department that is often expected to be involved in strategic, long-term planning. This chapter also will give an introduction to strategic human resource management and its application in emergency management through six management activities. Chapter 3, then, will provide insight on the role and history of emergency planning and preparedness in government and discuss obstacles local governments face in emergency planning. Discussion will then move to the roles human resources can assist with to overcome these obstacles. Chapter 4 will explain the methods used for the project with results and conclusions following in Chapters 5 and 6 respectively.
The role of a human resource manager is a broad and varied one. From managing employee benefits to recruiting and hiring new employees, human resource management is vital to any level of government. Human resource managers and specialists play a major role in the overall effectiveness of government. Although many HR tasks are strictly administrative, much of their work involves planning, strategy, and analysis for the organization as a whole. However, human resource professionals were not always viewed as consultants who assisted in workforce development. Rather, department managers often viewed them as procedure-driven, rule-bound obstacles that had to be overcome to create an effective and efficient workforce (Ban and Gossett 2010).

The Transformation of Human Resource Management in Government

The role of the human resource department has changed considerably since America’s early beginnings. In a special edition of Public Administration Review that addressed the future of public organizations, Rosenbloom (2010) discusses the history of public personnel administration in order to predict the future. The author explained that through the years, the values of public personnel administration have changed, and much of the change is due to the dominant political party at the time. As Mosher (1982) described, those selected for public service at the federal level were once based on fitness of character. However, the values for selection for a career in public service changed,
evolving from a spoils system based on political partisanship to one based on merit to finally, a system that sought standardization in selection.

One era that significantly impacted standardization in the public personnel system began in the early 1960s, when diversity and equity in hiring emerged as top priorities. The foundation of public service in the 1960s and 1970s was one of social equity, in which public jobs were public goods and hiring diverse socioeconomic groups positively impacted the communities in which employees served (Wise 2002). Combined with the emphasis on behavioral theories from the 1940s and 1950s, that is, an emphasis on “individual contributions and employee participation” in the workplace, the two eras produced a new type of workforce, one that was unlike any that had existed up to that point in public service.

The evolution of a professionalized workforce for positions throughout government as well as in the personnel department brought a new perspective to public service, one based not only on competence and political neutrality, but also on flexibility and decentralization. However, two common terms in public administration – efficiency and effectiveness – also became common as public human resource management faced changes. In fact, Truss (2009) argued that many governments have tried “to professionalize the HR function, raise its status, and encourage HR managers to play a more active role in the efficient and effective management of the workforce” (167).

At the local, state, and federal levels of government, the name of those responsible for “recruiting, selecting, placing, classifying, compensating, appraising performance, training, and engaging in equal employment opportunity and labor and employee relations” is an indication in itself of the professionalization of the department (Rosenbloom 2010, S176). The office responsible for these duties has been labeled the
civil service office, the personnel office, the human resources department, human resources and risk management, human resources and organizational development and many others. However, the change in name from civil service to personnel to human resources is a result of a change in perspective of the department’s role. Ban and Gossett (2010) state that the roles of the human resources office have changed from that of administration to organization development and consulting to contract management and coordination to strategic human resource management.

As administrators, personnel managers would perform traditional functions such as recruiting, testing, and classifying while confined in an environment of strict procedures and regulations. Traditionally, members of government, especially department heads, viewed the personnel office negatively. The office was characterized as “naysayers” who did not allow managers the flexibility to act as they needed, and many public servants felt the personnel staff had no interest in assisting them meet the needs of their departments. Conversely, members of the personnel office believed they were “charged with preserving merit in the merit system” (Ban and Gossett 2010, 8). However, when reform movements appeared that focused on improving customer service and helping managers meet the needs of their departments, the perception of the personnel office also began to change (Ban and Gossett 2010; Woodard 2005).

The perception change also initiated transformation within the personnel office from one focused on training to assisting managers through consulting. Helping employees identify training needs to enhance their skills for current positions also allowed for increased knowledge and the ability to move into management positions. Thus, reform influenced a growing partnership between line managers and personnel. According to Ban and Gossett (2010), this role began to take shape when the United
States Office of Personnel Management (OPM) adopted the policy of helping agencies “with organizational redesign, developing performance management systems, and working directly with individual managers to address their staffing and training needs” (12). Consulting with departments on methods to enhance the human resources available to them allowed managers the opportunity to describe their needs. This then placed HR in a position to listen, relying on the manager to identify the skills necessary for the organization to function, survive, and grow. Thus, the new role of organizational development and consulting was a turning point in which their once-negative image as “naysayers” began to transform into one focused on manager empowerment.

Conversely, as the consulting role began to take priority in the human resources office, less time was available for the traditional functions of payroll, recruiting, and benefits management. Thus, many governments began to outsource these tasks to companies that specialized in the areas, arguing that outsourcing was more efficient and allowed human resource departments the ability to focus on organizational and employee development (Klingner and Nalbandian 2003; Ban and Gossett 2010). Much of this new direction in government came as a part of New Public Management, which emphasized that “transformation of government organizations from inherently inefficient cultures of entitlement into more efficient, innovative, and publicly responsive entities is best accomplished through the application of private market models” (Rainey 2010, 774).

However, by allowing the private sector to handle public sector functions, governments have faced issues of “loss of control of information and basic functions for which HR is legally accountable, loss of expertise among employees, failure to adequately prepare employees for change, issues of employee displacement, legal complications, and failure to meet cost reduction expectations” (Rainey 2010, 801).
Yet, a positive outcome of outsourcing is that HR professionals have more time to work closely with department heads and managers to not only assist with developing their staff and the organization as a whole, but also to identify and assess the long-term needs of the organization. As Ban and Gossett (2010) state:

The new charge is to serve as a business partner and support the mission of the organization. This strategic approach to HR entails new power relationships within the organization, with the senior HR staff functioning as part of the management team, sitting at the table with top management when major policy or program decisions are being made and ensuring that HR implications are considered. In sum, HR becomes a major organizational player — an integral part of the strategic planning process. (16-17)

The Government Performance and Results Act of 1993 brought the HR profession in the public sector to the forefront of government decision-making. The rationale was that HR professionals have unique perspectives that should be considered during decision-making rather than during implementation. However, the transition from support personnel to key player was difficult for many HR professionals. Not only did the emerging role require a new approach to how their office would function, but it also required new skills that had not before been a focus. That is, up to that point, training for HR professionals centered on personnel administration. The role outlined by the new legislation required strategy, planning, and development – areas that most HR professionals were not specifically trained in (Ban and Gossett 2010; Patton et al. 2002). Yet, although human resources professionals had to be trained in some areas of strategic planning, their knowledge of workforce development, personnel administration, and organizational development allowed them the ability to effectively respond to the challenge. Rather than focusing on personnel functions, they began concentrating on
human capital, or “the know-how, skills, and capabilities of individuals in an organization” (Ban and Gossett 2010, 18). Thus, the new legislation also introduced a new human resource professional, one that plays a significant and vital role in the public sector.

**Re-inventing Human Resources in State and Local Government**

The transformation of the human resources department in the public sector did not occur only at the state and federal levels. Beginning in the 1970s, human resources departments in local government also were impacted by reforms, with major changes occurring as part of the National Performance Review in 1993. Hays (2004) found that as part of the “reinvention” movement, both local and state governments sought to give more flexibility to public managers in hiring decisions, abolish many of the procedures that came with mobilization of employees already in the system, support motivational and reward systems for civil servants, improve performance assessments, and reduce the restrictions on terminating underperforming employees (259).

However, the extent of these reforms varied, as did their success. Unlike their state and federal counterparts, local governments and their HR offices have some influences that partially impact reforms. For example, size of the locale, number of employees, and structure of the system may impact reforms and constitute issues that may or may not be faced in state and federal government. Choudhury (2007) found that “small local governments are distinctive in terms of their size, political status, administrative capacity, and culture. They often lack the fiscal, technical, and professional capacities to adopt administrative innovations” (265). Thus, HR offices in local government have faced issues in reform that can be characterized by social, cultural,
technological, political, economic, and physical problems. However, like their state and federal counterparts, local governments have sought to “professionalize personnel practices” by protecting employees from “the abuse of partisan politics and promoting the merit principle” (Choudhury 2007, 266). In doing so, local government HR offices have focused on reforming practices in recruitment, classification, compensation, training, performance assessment and management, discipline, labor-management relations, quality of work life, and leadership succession (Hays 2004). These reforms have been accompanied by efforts to redefine HR roles, practices, and priorities, which would also assist local government managers with making better, more appropriate decisions for their departments.

Managerial flexibility was not an issue in early United States history because all employment was at-will, that is, individuals could be terminated or re-assigned at the will of the employer. However, as a result of the spoils system and political partisanship within government, the civil service system was introduced, offering protections to public servants. Although the reforms began at the federal level, state and local governments followed suit, hoping to ensure that employees were qualified for their positions rather than members of a specific political party (Goodman and Mann 2010). At the local and state levels, patronage is characterized as more rampant, and as Maranto and Johnson (2008) argue:

Indeed, the most notable spoils scandals occurred in state and local governments with less moralistic political cultures, less political competition and less media scrutiny: thus arguments for civil service reform lose much of their force when applied to state and (especially) local governments. (472)
Yet, civil service systems create their own obstacles and effects that even state and local governments have problems overcoming. For example, the protections to keep employees from being unlawfully terminated also serve as restrictions in removing unproductive employees. Under at-will employment, employees can be discharged for any legal reason and managers have more discretion in staffing their departments. Although some argue that at-will employment could lead to pre-civil service injustices such as unjustified removals, employees that are wrongfully terminated are protected through anti-retaliation statutes, anti-discrimination statutes, and judicial exceptions, among others, but it is the employee who bears the burden of proof (Gertz 2008).

On the other hand, many argue that at-will employment allows for greater efficiency and effectiveness, and gives managers the discretion to run their departments as they see fit. Reforms of this nature have seen some success. In the State of Mississippi, most HR directors surveyed in 2005-2006 stated they believed at-will employment “helps to ensure employee responsiveness and performance” and “makes the HR function more efficient and provides for more flexibility” (Goodman and Mann 2010, 198). In the late 1990s, the State of Georgia witnessed an intensive reform that, for the most part, abolished this state’s civil service system for new at-will techniques. Although considered an extreme and atypical case, Georgia managers agreed that prior to reforms, the personnel office had more restrictions than advice. And, even if “cronyism, favoritism, and unequal pay for equal work” may be increased threats because of less control from a central HR office, managers agreed the merit system was no longer working and the new system would be more responsive (Condrey 2002, 123). However, after investigating the reform movement in Georgia, Condrey (2002) concluded, “As states look at Georgia, it is hoped that they will work to devise strategic partnerships
between central and agency personnel authorities, seeking a healthy balance between responsiveness and continuity” (123).

Thus, the ultimate goal under at-will employment is to give managers more flexibility while also allowing the HR department to act as a strategic partner. Although some proponents of the reform movement argue that government should run more like business, the end result of the public sector compared to that of the private sector could not be more different. While the private sector seeks to profit from good business practices, government seeks efficiency in service delivery and effectiveness in helping its citizens. However, with that said, the public sector could easily implement some aspects of business practices, particularly in human resource management (Bowman and West 2009).

Strategic Human Resource Management (SHRM) attempts “to anticipate and respond to the HR changes facing organizations” and through planning, “managers attempt to anticipate forces that will influence the future supply and demand for employees” (Mathis and Jackson 2006, 5). Although SHRM can be applied to various practices in human resource management in local government, its application to emergency planning can help local governments better prepare for emergencies. As Condrey (2010) explained, “If human resource management is to remain an intact profession, it must strive to achieve relevance to organizations as a whole” (xli).

SHRM and Local Government Emergency Planning

The foundation of SHRM rests upon responses to change, and in a crisis, a sense of normalcy disappears. When communities face disasters, their residents turn to their local governments for assistance in returning to normalcy, prompting local governments
to prepare for quick response and long-term recovery. Thus, the foundation of change that SHRM is built upon urges organizations to be strategic in long-term planning, which can serve as a guide for local governments in emergency preparedness. However, the first step in understanding SHRM is realizing that planning and strategy are different concepts.

Planning entails understanding what an organization “wants to be and how it should get there” (Tregoe and Tobia 1995, 3). To do so, mission statements and clear goals must be established by those affected by the organization, including individuals in the community, employees, interest groups, politicians, and administrators. Wamsley and Zald (1973) argued that public organizations make up a “policy subsystem” that consists of “individuals, groups, and organizations affected by and interested in influencing a policy for which the organization has prime responsibility and concern” (64). The mission and goals of a public organization, then, should be based on the expectations of the publics that are affected by the actions of that organization. In understanding those expectations, organizations can begin to identify plans to carry out their mission and serve those publics. However, planning cannot begin until the policy subsystem has been identified. Understanding the policy subsystem will then allow for clear goals to be set to fulfill the needs of that public. Tregoe and Tobia (1995) argued:

an organization’s self-definition — what it wants to be — and its planning and operation decision making — how it gets there — are related but separate dimensions. Because what an organization wants to be determines direction, it must be formulated before long-range planning and the day-to-day decision making that follows from such planning. (4)
By establishing clear goals and objectives, organizations are better able to make effective decisions in the present and can formulate plans for the future. Drucker (1959) defined long-range planning as:

the continuous process of making present entrepreneurial (risk-taking) decisions systematically and with the best possible knowledge of their futurity, organizing systematically the efforts needed to carry out these decisions, and measuring the results of these decisions against the expectations through organized, systematic feedback. (240)

In other words, long-range planning requires that both the immediate and long-term effects of decisions be considered while also identifying the resources available, such as human capital and funds, to implement those decisions. In addition, long-range planning requires constant evaluation so that methods that are both effective and ineffective can be identified. However, none of these actions could be carried out without the employees of the organization. Thus, identification of human capital available to the organization becomes a priority in long-range planning. By understanding the KSAs of employees, effective strategies to fulfill the long-term goals and objectives of the organization can be determined.

While identification of human capital is specifically a role in planning, it is the organization’s strategy that serves as the foundation and purpose. Tregoe and Tobia (1995) define strategy as, “the framework that guides those choices that determine the nature and direction of an organization” (4). When combined, strategy and planning, or strategic planning, should include identification of the human resources needed to accomplish goals and objectives (Daley and Vasu 2003). The goal of SHRM is not to create new personnel strategies, but to effectively identify and use the skills of individuals that make up an organization. Understanding employees’ KSAs gives
administrators in public organizations the ability to be strategic in both short-term and long-term planning by applying those abilities in various ways.

However, decision-making processes and coordination of responsibilities during times of disaster may be more difficult if planning and response have not been addressed. Reactions to emergencies may be inadequate “because of unexpected tasks, inadequate leadership, or lack of previously worked out programs” (Siegel 1985, 108). He posits that understanding KSAs of employees will help to “carry out organizational tasks and functions” and they also “provide the basis for development of personnel selection and assignment procedures, training or learning objectives, and position design or redesign variables” (Siegel 1985, 107).

SHRM emphasizes strategic planning, and by applying six basic functions of management, local governments can use a concept created for the private sector to help its public during times of crisis. The six functions of forecasting, planning, organization, command, coordination, and control can be applied to emergency planning so that local governments are both effective and efficient in response and recovery (Lewis, Goodman, and Fandt 2004, 316; Rabjohn 2010).

The first management activity, forecasting, can be described as attempting to have “the right number and the right kinds of people, at the right places, at the right times, doing things which result in both the individual and the organization receiving long-run benefits” (Fombrun, Techy, and Devanna 1984, 66). To obtain a successful and effective workforce, HR departments must continually analyze and understand the training employees need, the skills required for specific positions, and the availability of employees in their area (Mathis and Jackson 2006). Local governments constantly compete with the private sector for employees with various skill sets, thus making
planning and analysis all the more important. In forecasting, both past and current information and trends can be used to predict future workforce needs (Mathis and Jackson 2006).

In the immediate aftermath of Hurricane Katrina, local governments along the Mississippi Gulf Coast faced hardships in filling positions due to two factors. First, the private sector simply paid more, and could afford to pay more. Many local governments had their tax bases decimated and could not match the salaries of the private sector. Other locales faced hiring freezes altogether. Two years after Hurricane Katrina hit the Mississippi Gulf Coast, French, Goodman, and Stanley (2008) interviewed city officials about their experience with HR issues in the aftermath. The authors reported that local governments in Mississippi faced problems with “increased competition for labor from private employers” (French, Goodman, and Stanley 2008, 70). In fact, one interviewee said, “Staying competitive with private sector salaries has become a problem because casinos and construction companies are continually hiring laborers and the available pool has not reached its pre-Katrina state” (French, Goodman, and Stanley 2008, 70). The interviewee added that the private sector could afford to increase salaries when goods had also increased. As a result, the authors reported that most locales were forced to conduct nationwide searches.

However, in conducting nationwide searches, another major problem quickly hampered hiring. Some individuals who accepted or wanted to accept positions with local government could not find housing because Hurricane Katrina had devastated the coast of Mississippi. Specifically, officials stated that although the housing shortage had improved by 2007, “the numbers of all types of available housing have not reached prehurricane levels, and a major worry along the coast is that another hurricane will hit
before most communities can recover from Katrina” (French, Goodman, and Stanley 2008, 70-71). While recovery from Hurricane Katrina is still ongoing, locales were able to increase planning and preparedness efforts to address problems faced in “finance, evacuation, debris cleanup, equipment protection and especially HR management” (French, Goodman, and Stanley 73) as a result of the lessons learned from the catastrophe.

Thus, the second management activity, planning, entails identifying what an organization “wants to be and how it should get there” (Tregoe and Tobia 1995, 3). For local governments, public officials and administrators must understand the expectations and priorities of the community they serve. In understanding those expectations, locales can begin to identify their mission and how to effectively serve those affected by their decisions. Harris (2006) examined HR issues in terms of their effect on international humanitarian assistance to Sri Lanka in the aftermath of the tsunami. The author noted that culture, geography, political environment, and other factors must be considered as part of recruitment, which also should be noted in planning. Specifically, Harris (2006) argued:

The rapid acquisition of local human resources with their context-specific knowledge, skills and experience is an essential prerequisite…Without a detailed awareness and appreciation for the local geography, cultural norms and taboos, languages, the social and political environment, business practices, security issues, government and civil society structures and networks, it would be virtually impossible for international aid agencies to being to help address the needs of those affected by disaster. (292)

Although this particular study focused on international humanitarian aid programs, the author presents a valid argument in that with planning efforts, organizations must understand the community in which they serve. Planning is
comprised of both day-to-day operations as well as long-term actions that will contribute to meeting goals (Tregoe and Tobia 1995). Human resource managers can assist in emergency management by helping an organization establish clear goals and objectives for its workforce and by identifying the human capital available to reach those goals and objectives. One major goal of emergency management is to coordinate and convene “key people from diverse departments [to] increase the chance that jurisdictions and organizations achieve planning goals” (Perry and Lindell 2007, 97). In doing so, developing a meeting strategy for all participants will help to reach the primary goals of situational analysis and resource acquisition. A situational analysis “is a managerial assessment of organizational strengths, weaknesses, and opportunities both internally and with respect to the organizational environment” while resource acquisition focuses on bringing together “emergency planning staff, equipment, and information of many types from any sources” (Perry and Lindell 2007, 101). Understanding the capabilities held by the organization also allows for the identification of weaknesses and vulnerabilities. Many, of which, may be overcome by placing the right people with the right skills in the right positions (Areiqat, Abdelhadi, and Al-Tarawneh 2010, 330).

However, the identification of resources requires constant input from employees and the leadership of human resource professionals. By focusing on long-range planning, identification of human capital available to the organization becomes a priority. Understanding the KSAs of employees will allow for the creation and identification of effective strategies that will help to fulfill the long-term goals and objectives of the organization. In fact, Daley and Vasu (2005) argue that strategic planning should include identification of the human resources needed to accomplish goals and objectives. Ultimately, the goal of SHRM is not to create new personnel strategies, but to effectively
identify and use the skills of current employees, which also is important in emergency planning and response.

The ability to identify and utilize employees’ KSAs gives administrators the ability to be strategic in both short-term and long-term planning. Human resource professionals are able to contribute to the process by not only helping department or agency heads identify these skills, but also organize them. A new approach in SHRM is talent management, which “refers to the strategic management of the flow of talent through an organization” (Areiqat, Abdelhadi, and Al-Tarawneh 2010, 330). In times of crisis, many employees are needed in areas outside of their normal position. By organizing the talents and KSAs that local government employees bring to the organization, HR professionals can identify the “right people with the right jobs at the right time” (Areiqat, Abdelhadi, and Al-Tarawneh 2010, 330).

As a result of organizing effective talent management, HR professionals also can serve as response coordinators. In this role, the HR department could become the center of command, assisting employees in the identification and transition into new position responsibilities. Karen Brunson, the director for human resources for the City of Elk Grove, California, commented:

> HR professionals should not only have updated lists of available resources, but also have an idea of what types of positions they will be filling, and how to schedule so that each position is filled at least three days in advance for each 12 hour shift. It's not enough to know all the KSAs of your resources. You should have awareness of how those KSAs would be used in a disaster so you can anticipate the need. The tasks assigned in responding to an emergency are sometimes very different than our day-to-day jobs.

Rabjohn (2010) defined command as leading those who are employed by an organization, which, as managers and coordinators, is an appropriate role for human
resource professionals. For example, following Hurricane Katrina, members of Louisiana’s Department of Wildlife and Fisheries initiated their own rescue efforts, and, as Hurricane Gustav approached, the department was tasked with that same mission because of their proactive response following Katrina (Right approach 2008, August 30). Human resource managers can assist locales by directing other employees to departments that demand more resources during emergencies, and again, with identifying employee roles before, during, and after. In addition, HR managers can work with other department heads, coordinating the use of these roles, which assists in facilitating success.

However, decision-making processes and coordination of responsibilities during times of crisis may be more difficult if local governments have not invested time and resources for planning and response efforts. Siegel (1985) said reactions to emergencies may be inadequate “because of unexpected tasks, inadequate leadership, or lack of previously worked out programs” (108). However, understanding KSAs will help to “carry out organizational tasks and functions” and also “provide the basis for development of personnel selection and assignment procedures, training or learning objectives, and position design or redesign variables” (Siegel 1985, 107). In addition, this also will contribute to the sixth function of management, control.

As part of the planning process, HR managers can control the development of personnel, ensuring that “everything happens in accordance with defined plans, orders given, and accepted principles” (Rabjohn 2010). Inclusion of HR managers in emergency planning makes them knowledgeable about the entire process, the timeline of events, the staff needed, and the job functions necessary. In addition, having the knowledge of the emergency planning process also provides the ability to make informed decisions for the unexpected problems that were not planned for but always occur during
emergencies. Giving control of employee management to HR managers during times of crisis allows department heads to concentrate on other vital roles they are responsible for.

Thus, planning, is pertinent to public personnel management during emergencies. Mathis and Jackson (2006) state that effective HR planning includes identifying the “right number of human resources, with the right capabilities, at the right times, and in the right places” (44). To effectively prepare and respond to disasters, the KSAs of local government employees must be identified so that in times of emergency, those skills can be used to ensure government services are functioning as quickly as possible in order to assist individuals in the community with their own recovery. By understanding the KSAs of employees before an emergency occurs, administrators along with HR managers are able to assign the appropriate employees to necessary positions in the aftermath. After a disaster occurs, many daily responsibilities are unnecessary, but the knowledge, skills, and abilities of employees are invaluable. If they are included in long-term planning, human resource managers can serve as command center leaders who can inventory skill sets of employees and organize the human capital available within the organization.

Using all of the human resources available allows local governments the ability to focus on serving their communities. By understanding and using the basic foundations of SHRM during each of the phases of emergency management, and by extending the span of control in the emergency management process to human resource managers, local government administrators can take advantage of the resources offered by employees, which, in turn, makes communities more resilient during times of crisis. Siebert (2006) stated:

Today’s managers must implement deep reorganization and constant change on reduced budgets while trying to meet required objectives. Every branch of government has
shifted from needing cooperative, compliant employees, to needing self-motivated, change-proficient, adaptable workers capable of performing in new ways without up-to-date job descriptions. 

In times of crisis, local governments face exactly that — problems with “deep reorganization and constant change” (Siebert 2006, 3). For example, following a major earthquake, one city’s structural engineer and architect expanded his own role of authority to become one of the leaders in emergency response, going as far as making armbands of bed sheets to decrease time when asked about his authority (Webb et al. 1999). In addition, during the response to a hurricane, one city’s executive assistant began giving orders to not only the city’s police force, but also non-profit organizations, all of which would not normally receive direction from the mayor’s office (Webb et al. 1999). In the University of Delaware Disaster Research Center archives, the executive assistant explained that “decisions had to be made” (Webb et al. 1999, 16). “Like procedural changes, status changes often are necessary and functional alterations to the social structure undertaken to meet the demands of extreme situations” (Webb et al. 1999, 17). Thus, in emergency planning, human resources professionals and department heads can collaborate to identify and coordinate the skills and talents employees hold that would apply beyond their regular duties. Although not all roles and duties that arise in times of crisis can be identified and must be adaptive, by working together to identify the skills employees have may allow for a more efficient and effective response. As Siebert (2006) explained, resiliency is not something that is necessarily innate, but rather something that is developed over time. By collaborating, HR professionals and department heads could plan for training and development that helps employees develop resiliency skills, which include identifying employees’ resiliency strengths, knowing “the factors that support or impair worker resiliency,” and being “a good role model of
resiliency” (Siebert 2006, 4). The result of resiliency training is not only an employee who can quickly adapt to the changing environment of a disaster (Siebert 2006), but also a local government workforce that will withstand that disaster.
CHAPTER III
LOCAL GOVERNMENT EMERGENCY MANAGEMENT AND THE ROLE OF
HUMAN RESOURCES

From March 20 through May 18, 1980, over 10,000 earthquakes rumbled through
the grounds of Washington, as Mount St. Helen’s began awakening from over a century’s
slumber. A cryptodome, or a pocket of magma under the surface, grew six feet per day
for almost two months, and bulged at a whopping 300 feet from the side of Washington’s
suddenly-famous mountain. On March 31, a state of emergency was declared for the area
surrounding Mount St. Helen’s, and for several more weeks, the mountain would
continue to bulge, but never blow. Most reporters, tourists, and geologists left the area
because it seemed the volcano would never erupt. Only a few of those who did remain
would live to describe the incredible sights and sounds of the explosion of a once
seemingly-dormant volcano.

In a 1990 National Geographic documentary, Jim Scymanky, a logger in the
Mount St. Helen’s area, described Sunday, May 18, 1980 as beautiful and calm.
However, by 8:32:11 a.m., the strongest quake ever on the Richter scale was recorded —
a 5.1, and by 8:32:20, racing at 100 m.p.h., the largest landslide in United States history
also was recorded. Within 3 minutes, Spirit Lake was buried. Within 3 minutes,
thousands of acres of green trees were covered in ash. Within 3 minutes, a 60-mile radius
around Mount St. Helen’s was described as a “moonscape” (National Geographic
Seismic Seconds 1990).
While geologists and local emergency personnel knew that Mount St. Helen’s was active, no one could have imagined the devastation the volcano would create in the state of Washington. The ash was so extensive that a beautiful sunny day was transformed into night (National Geographic Seismic Seconds 1990). The explosion of Mount St. Helen’s began a new chapter in the study of volcanoes, and brought new attention to the field of emergency management (Friel and Singer 2005; Murphy and Bayley 1989; Lindell and Prater 2003).

This specific incident may not be a concern in all areas of the United States, but the effects of floods, hurricanes, tornadoes, and other types of disasters emphasize that emergency management preparation and planning are pertinent and continuous. In recent years, local and state governments have become accustomed to extraordinary assistance from the federal government. However, that was not always the case.

The purpose of this chapter is to discuss the importance of emergency planning in local government in an effort to show that planning should include all departments, particularly human resources, which is the department most knowledgeable about the organization’s human capital. Discussion will begin with a history of emergency planning and preparedness in the United States, which will establish the federal government’s role and its expectations of state and local governments. The history will be followed by specific information on the roles of both state and local government, and will include explanations of some problems these governments face in emergency preparedness and planning. Finally, the role of public human resources management in emergency planning will be introduced along with practices from the private sector that local governments could implement, resulting in resilient, sustainable communities.
The History of Emergency Planning and Preparedness in the U.S.

Comprehensive emergency management consists of four phases, which include mitigation, preparedness, response, and recovery (Waugh 1994). “Preparedness involves establishing authorities and responsibilities for emergency action and garnering the resources to support them” (FEMA 1996, 1-3). According to Lindell, Prater, and Perry (2007), preparedness consists of creating plans and procedures to not only “support a timely and effective emergency response…but also guide the process of disaster recovery” (11).

The terrorist attacks of September 11 and the devastation caused by Hurricane Katrina revealed a nation that was unprepared for the impact of a major catastrophe. Since these events, attention to emergency preparedness has increased. The GAO (2006) stated that part of preparedness is identifying measurable goals and current capabilities, and then bridging the divide between the two. “First responders should be able to respond swiftly with well-planned, well-coordinated, and effective actions that save lives and property, mitigate the effects of the disaster, and set the stage for a quick, effective recovery” (GAO 2006, 4). Today, local and state governments are expected to manage emergencies with the assistance of the federal government if requested. Although the federal government often creates a framework for state and local governments to follow in creating emergency plans, the involvement of the federal government was quite limited in the nation’s early history.

Although the federal government faced disasters prior to the 1940s, it was in 1948 that the director of the Office of Civil Defense Preparedness, Russell Hopley, issued a report that helped policymakers realize that civil defense programs could be used for many types of emergencies, including natural disasters. However, the fear of an
increasing threat of a Soviet nuclear attack led the all-hazards approach to preparedness to focus more on response to terrorism rather than natural disasters. The federal government became more focused on what to do if and when an attack occurred and turned planning and preparation for natural disasters over to local and state governments. In 1950, the Federal Civil Defense Administration, whose purpose was to focus on disaster planning in addition to civil defense planning and training, was created in reaction to the 1949 Soviet atomic test and the Korean War. American citizens also became involved in civil defense planning and took advantage of the funds the federal government offered for construction of fallout and bomb shelters. “Defense against nuclear attack, not natural disasters, inspired a sense of national purpose” (Roberts 2004, 8).

In 1950, the federal government established the first fund to assist counties and states that suffered from disasters. The Disaster Relief Act of 1950 was not originally intended to play a major role in distributing federal funds to areas that faced problems due to disasters, but simply to assist in recovering loss. At that point, relief of any type, including monetary relief, was to be handled by local government and by private donors (Cooper and Block 2006; May and Williams 1986). However, the Disaster Relief Act led the way to creating laws that would help state and local governments in the aftermath of disaster, and when Georgia suffered from tornado devastation in 1953, President Dwight D. Eisenhower used the act to declare a major disaster (Roberts 2004). Although the 1950s focused on a militaristic approach to preparedness, the Office of Emergency Planning (OEP) and the Office of Emergency Preparedness were created, and “from 1953 to June 1964, the OEP coordinated federal disaster assistance for 180 major disasters
including 87 floods, 27 hurricanes, 23 severe storms and 18 tornadoes” (Roberts 2004, 9; Conley 2003).

On July 26, 1961, Secretary of Defense Robert McNamara asked the Senate Appropriations Committee for $207.6 million to begin construction of fallout shelters across the United States. The day before, President John F. Kennedy stated in a televised speech to America that more fallout shelters were needed to protect Americans. When Congress approved the request, the United States civil defense program saw its first major funding increase, which eventually led to the creation of the Defense Civil Preparedness Agency (DCPA) in 1973. Soon after, the Federal Disaster Relief Act of 1974 was created, a result of pressure from state and local governments, some of which had experienced recent emergencies. Congress also agreed that the Department of Defense’s Civil Defense Preparedness Agency would focus both on defense and natural disasters. In 1977, the National Governors’ Association (NGA) expressed concern that the nation did not have a preparedness system in place, and in the event of an emergency, procedures in managing the disaster were not clear, which could prolong response and recovery. In essence, the NGA wanted the federal government to establish a preparedness system (Drabek and Hoetmer 1991). After conducting interviews with state, county, and municipal officials, an NGA project team found:

- ‘Many state emergency operations are fragmented.’ Researchers found not only that ‘uncoordinated federal programs encourage state fragmentation’ but also that state emergency management offices lacked understanding of the crucial relationship between, on the one hand, long-term recovery and mitigation of future disasters and, on the other hand, preparedness and response for more immediate disasters;

- Few states are aware of the relationships of emergency management to state policy and community development planning. In addition, federal-state-local emergency management roles and strong state emergency management policy have not been delineated and articulated;
• Although most states have natural disaster preparedness and response mechanisms well in hand . . . . no particular office . . . . is responsible for mitigation and recovery activities; thus, these vital functions are adequately planned and coordinated, and are often undertaken only on an ad hoc basis in various state agencies;

• Important efforts are made by several states to develop integrated policy and centralized management beyond natural disasters and preparedness/response operations. However, no state . . . has centrally integrated policy and coordination for all phases, for all types of emergency, and at all levels of participation. (Drabek and Hoetmer 1991, 18).

In 1979, President Jimmy Carter proposed a new agency, the Federal Emergency Management Agency (FEMA), which centralized functions of more than 100 emergency management programs whose foci ranged from preparedness to response (Roberts 2006). Agencies, including the National Weather Service Community Preparedness Program, the Federal Preparedness Agency of the General Services Administration, the Federal Insurance Administration, the National Fire Prevention and Control Administration, the Defense Civil Preparedness Agency, and the Federal Disaster Assistance Administration, became part of the new FEMA (Congressional Digest 2005). Carter then appointed John Macy as FEMA’s first director, who was responsible for developing the Integrated Emergency Management System (IEMS) that was the first step in an all-hazards approach to emergency management. The purpose of IEMS was to assist in “direction, control and warning systems which are common to the full range of emergencies from small isolated events to the ultimate emergency – war” (Roberts 2004, 10-11). While terrorism remained the prominent theme of the federal government during the Carter and Reagan administrations, the 1978 National Governor’s Association pointed out that most of the management of first responders for all emergencies would fall on local and state governments.
During the 1980s, FEMA faced a few crises, including the accident at Three Mile Island nuclear plant and the contamination of Love Canal, which prompted many local and state governments to focus on planning for natural and man-made disasters (Congressional Digest 2005). “The development of an emergency management profession saved lives and property: In 1969…over 250 people died when Hurricane Camille struck the Gulf Coast but only 36 lost their lives when a similar hurricane, Andrew, hit Florida and Louisiana in 1992” (Roberts 2004, 13). The Federal Response Plan created by FEMA assisted in the coordination and implementation of disaster services, which essentially was an all-hazards approach to emergencies (Roberts 2004). In 1993, President Bill Clinton appointed James L. Witt as FEMA’s new director. Witt, who had experience as a state emergency manager, created a more efficient agency by reforming recovery and response, focused on mitigation and preparedness, and made customer service a focus. In addition, available funds for disaster-related programs increased because the Cold War ended. Witt pushed for locales to not only improve relief and response, but also to focus on mitigation (Congressional Digest 2005).

When President George W. Bush took office, he appointed Joe Allbaugh as FEMA’s director, who concentrated on civil defense rather than natural and man-made disasters. He again established the Office of National Preparedness, which had been in existence from 1981-1993. However, the office did not seem to have much power and may have been characterized as one of Allbaugh’s lackluster programs. However, Allbaugh also created Project Impact, which was an extension of the goals of Witt in that it was a nationwide disaster mitigation program that provided communities with grants, education, and assistance to build resistance to disasters. Following the 2001 Nisqually Earthquake, Seattle’s mayor claimed that it was the lessons of Project Impact that
reduced the damage. The program, however, was eliminated before the Seattle earthquake and many argued that it was those types of programs, which were originally implemented by Witt, that kept FEMA’s reputation intact when its popularity declined during the Allbaugh years (Roberts 2004; Murray 2001).

In the aftermath of the September 11 terrorist attacks, FEMA once again gained significant attention. Reorganization occurred in most of the 22 agencies that became part of the Department of Homeland Security, but FEMA maintained its primary mission and many original responsibilities (DHS 2008a). FEMA did, however, lose control of the Office for Domestic Preparedness (ODP), which was “charged with funding terrorism preparation and response for states and localities” (Roberts 2004, 24). The responsibilities of ODP were distributed throughout FEMA and DHS. In addition, President Bush tasked FEMA with the creation of a National Response Plan, an all-hazards approach to emergency management, but many FEMA employees argued that the reorganization did not reinforce that idea. In fact:

The plan called for new procedures, tasks, planning, and definitions, which would require more resources. Most cities and states had invested a significant amount of time in preparedness plans, and to change the past efforts, which seemed to be working effectively for most, would be risky and expensive. The new administration quickly saw that the previous method of planning and preparedness worked and decided not to alter the approach. (Goodman, French, and Mann 2010, 406)

However, following Hurricane Katrina in August 2005, rather than remaining one of the most highly-regarded agencies in the federal government, the agency received much criticism and dropped again in popularity. Miscommunication between New Orleans Mayor Ray Nagin, Louisiana Governor Kathleen Blanco, and representatives of FEMA and the federal government caused a delay in response, resulting in lack of trust
by the American public. Following Hurricane Katrina, Secretary of Homeland Security Michael Chertoff restructured and re-built the organization, and although many of the issues faced by FEMA and DHS are still being addressed, a new focus on preparedness efforts emerged (Prine 2008).

The history of emergency preparedness in the United States has been a rocky one. However, from the early 1900s, all levels of government have recognized the importance of the issue, although the status of priority changed from one administration to another. For now, local governments carry much of the load. Unfortunately, many struggle with considerable obstacles, and are unable to focus on preparedness efforts.

**The Roles of Local and State Government in Emergency Preparedness**

Emergency management in the United States is based on a three-tiered system. Because local government is responsible for first response, the majority of preparedness activities occur at this level. This process entails identifying both essential and non-essential personnel as well as their specific responsibilities, ensuring that facilities, equipment, and other resources are available and operable, training staff in appropriate areas, conducting exercises and drills, and identifying the types of vulnerabilities faced by the locale. Although local government is responsible for the majority of preparedness activities, state governments play a significant role in assistance. Not only are state governments responsible for ensuring that federal allocations to local governments are used appropriately, they also assist local governments in the all-hazards planning process. State emergency management agencies match federal dollars for developing local government emergency preparedness training and education programs to become better prepared for emergencies (Drabek and Hoetmer 1991). At the state level, the governor
serves as the commander of emergency management activities, but the state emergency management office carries out most of the responsibilities. In times of emergency, the governor is the link between local governments and the federal government. However, the state emergency management office is responsible for disaster assistance, planning, preparedness, and training. It is also this office that creates the state emergency operations plan as well as ensures that local government officials and staff receive adequate training to carry out the missions of the plan (Drabek and Hoetmer 1991).

According to Drabek and Hoetmer (1991):

In most states, the emergency management function at the local level is carried out in large part by volunteer civil defense or emergency management personnel and by ambulance and emergency medical personnel, fire fighters, and other related professional groups that are involved in a multidisciplinary approach to emergency management. These groups form the nucleus of the emergency management (or emergency services) councils, which have become important mechanisms for coordinating the policies, programs, and activities of these organizations and for improving the relationship between the state emergency management office and local government. (108-109)

At the local level, coordination of emergency preparedness efforts is handled in various departments, which might include public works, homeland security, or emergency management. In addition, many cities have emergency planning teams in place that bring together elected officials, departments heads, and staff members to address risks, concerns, and response efforts for times of crisis. Within local government, Somers and Svara (2009) argued, “If the top administrator does not take these responsibilities seriously, there is little chance of commitment from department managers who do not deal with the everyday emergencies that occur in local governments” (183).
As part of the planning process, local governments should conduct vulnerability analyses, and because each department brings a different perspective to the planning process, all departments should be included. Collaboration among all departments in emergency planning allows for better assessments of the environment, more accurate identification of risks, and more thorough evaluation of likely obstacles (Schafer, Carroll, Haynes, Abrams 2008). This collaboration leads to strategic management, which Choi (2008) argues, “can offer a viable means for public agencies to cope with environmental complexity and uncertainty” (8). In addition, including all department heads in emergency planning allows for the group as a whole to develop a common language while also creating an organizational culture that is focused on learning and adaptation (Choi 2008).

Collaboration and creation of organizational culture also offers members an opportunity to better understand the important aspects of each individual unit, especially those that should be addressed in times of crisis. For instance, in Round Rock, Texas, the city’s risk manager, in a personal interview in February 2011, stated that he “works closely with the Emergency Management Coordinator and both the HR Director and Risk Manager are EOC members.” As a result, the manager commented that he is “very involved” with emergency planning, which has allowed for “clear lines of communication between the HR department and other departments to promote assistance in staffing during all phases of emergency preparedness” (Interview with risk manager, February 2011). Thus, because collaboration of departments in local government tends to positively affect emergency plans, the first hypothesis was derived. It states: Local governments that include HR managers or representatives in their emergency planning
meetings will be more likely to include more HR disaster policies in their emergency plans.

Along with collaboration, leadership is an important aspect of emergency preparedness. If staffs perceive their department heads as concerned about preparedness, they are more likely to consider it a priority. If city managers and mayors are perceived as concerned about emergency preparedness, then department heads will likely see it as a priority.

The city manager is the person who needs to be looking broadly at how much of the total budget is given to emergency management, taking into account the hazard environment. Beyond allocating resources, managers signal the relative importance of emergency management by the way in which they allocate attention and priorities (Somers and Svara 2009, 183).

In terms of effective local government leadership and its impact on planning, form of government and its effect on policy and programs has been an ongoing debate. Research on the advantages and disadvantages of council-manager versus mayor-council forms of government, for example, has been conflicting, and very little research on forms of government and their effect on emergency preparedness is available. However, the research on the differences between the two forms may be somewhat telling of their behavior in emergency planning.

Specifically, differences in educational attainment, professionalism of the office, and allocation of expenditures may impact differences in decision making between council-manager and mayor-council forms of government (Feiock, Moon-Gi, and Kim 2003; Zhang and Feiock 2010; Simmons and Simmons 2004). In a study of city government structure, French (2001) found that city managers in small cities and towns tend to have higher levels of education than in mayor-council cities. According to
Watson and Hassett (2004), “by the turn of the twenty-first century, 63 percent of all city managers held at least a master’s degree, most in public administration, urban planning, or public policy” (194). In addition to high levels of educational attainment, city managers tend to bring a management background to their position, many having moved through the ranks and up the career ladder, sometimes having served as an intern, an administrative assistant, or budget analyst before moving into a city management position (Watson and Hassett 2004). “Experience is an important indicator of professionalism because it immediately translates into immediate outcomes of work-related knowledge, skills, attitudes and emotions” (Zhang and Feiock 2009, 465). In turn, experience and education brings greater expertise to municipal government management and assists in shaping “professional norms that decrease the risk of opportunistic behavior” (Zhang and Feiock 2009, 466).

Unlike city managers, mayors are elected for specific terms, requiring decision-making and policy creation to focus on more immediate concerns and improvements. “Mayor-council government can provide incentives for emergence of narrow issues and constituencies, place constraints on the role of professional expertise in informing public decisions, and lead local officials to be more attuned to political credit-claiming opportunities” (Feiock, Jeong, and Kim 2003, 617). Because mayor-council governments tend to serve more “culturally complex, socially diverse, stable, or declining older industrial cities” and “central cities with large ethnic and blue-collar concentrations” (Simmons and Simmons 2004, 376), mayors focus on public service improvements that are immediate and positively impact voter choices (French 2001, 6; Abney and Lauth 1986).
Conversely, council-manager forms of government tend to be present in cities that are characterized as affluent, “where professionals and high-status groups” are more likely to reside (Simmons and Simmons 2004, 376). In addition, because city managers are not elected and because citizens in council-manager cities tend to be more affluent, spending often differs significantly than in mayor-council cities. For example, city managers spend more per capita than mayors (French 2001), and council-manager forms of government, specifically in cities with populations greater than 50,000, also spend more on city planning projects (Cole 1971).

Long-term planning projects that do not have immediate results are usually not priorities in types of governments that rely on elections, such as mayor-council governments (Abney and Lauth 1986), which may include some emergency preparedness programs that require extensive resources. Because elected officials must focus on allocating funds to projects that have immediate effects, many suffer from the “shortsightedness effect,” or the tendency “to enact policies with short-term benefits and larger long-term costs because of imminent reelection pressures” (Healy and Malhotra 2009, 389). As stated by Choi (2004), “Overall public-sector expenditures may be more closely linked to the political contexts present at the local level” (212). In mayor-council locales with significant numbers of residents in lower socioeconomic groups, allocating funds to efforts that might protect citizens if a disaster did happen to occur would not win favor from the voters. Less reliance by citizens on government services, then, may allow for greater support of planning programs, which, in council-manager cities, could positively affect emergency preparedness.

However, Choi (2004) investigated the effect of government structure on emergency management growth, or the percentage of expenditures for emergency
management programs compared to the total expenditures of a county, in the state of Florida, which faces several types of risks. Florida is characterized as high risk for natural disasters such as hurricanes and floods, as well as homeland security issues such as terrorism and immigration. The author found that council-manager forms of government, classified as reformed governments, at the county level were less likely to spend money on emergency management practices than other forms of government, such as commissions, or unreformed governments. The author concludes that unreformed governments, such as mayor-council at the county level, are typically more responsive to socioeconomic characteristics of the constituents (Choi 2004). Not only is Florida a high-risk state, but it also is demographically diverse. Senior citizens, for example, comprise nearly 20 percent of the population. In times of crisis, many in this particular group require public services such as evacuation centers, which directly impacts spending (Caruson and MacManus 2007).

Finally, as is the case with many states, the county is responsible for the majority of emergency management activities and projects (MacManus and Caruson 2011), resulting in city expenditures being allocated to other areas. However, in local governments where city managers perceive the threat of disaster to be high risk, emergency preparedness is more likely to be part of the long-term strategic plan and is more likely to be a priority to the council as a whole (Rahm and Reddick 2011). However, Rahm and Reddick (2011) state that perception “may have a spillover effect into the political arena” (9). Therefore, one would expect that in local governments with a mayor-council form of government, the level of priority of management programs would be reflective of the perception of risk by the mayor. Nollenberger (2008) characterized mayors as the “driving force on governmental issues” (4), which reinforces
the idea that in general, the management style of mayors tend to be centralized and top-down (Svara 2008). Therefore, if the mayor does not perceive the city to be at risk, then the result is less focus on preparedness.

In contrast, the city manager tends to be present in local governments where the community embraces the “corporate ideal of the manager” (Healy and Malhotra 2009, 376) and where managers tend to take the administrative lead over elected officials (Krebs and Pelissero 2010). The management style of city managers tends to be decentralized and “multi-directional,” and often emphasizes “long-term accountability” (Svara 2008, S39), which is more effective for their roles in “managing day-to-day affairs of city government, preparing the budget, and hiring and firing department heads” (Krebs and Pelissero 2010, 393). As a result of their daily responsibilities, city managers often affect policy, which is due to the willingness of city councilors to sacrifice some power to the manager, who, in turn, builds “better policy-making teams” (Krebs and Pelissero 2010, 264). This type of management, then, may be more likely to positively impact emergency preparedness. One model of training, the emergency human resources or problem-solving model, “recognizes that when disaster occurs, responding localities must build on existing community institutions and be flexible [which is] is best achieved through a decentralized response” (Maor 2010, 318; Committee on Disaster Research in the Social Sciences 2006, 141-142). In addition, Reddick (2007) surveyed city managers in cities with populations of 100,000 or greater and found that in terms of administrative capacity and homeland security, 64 percent believed lack of personnel was a great concern, but that 93 percent of cities described a “high level of cooperation between city departments and the city managers’ offices in homeland security,” and 91 percent highly agreed that there were open lines of communication on homeland security planning.”
(Reddick 2007, 165). Yet, although managers stated that response was emphasized more than preparedness, coordination and collaboration regarding homeland security issues were common with council-manager governments.

Thus, because city managers tend to be influenced by their education and experience rather than political responsiveness, are likely to focus on long-term planning, and focus on collaboration with other departments regarding emergencies, the second hypothesis for this study was derived. It states: Council-manager forms of government are likely to include more HR disaster policies in their emergency plans.

In a study of five counties in South Carolina, Bowman and Parsons (2009) found that local governments that do not have access to extensive resources are more likely to collaborate with outside entities that could help in times in crisis. The increased communication with other individuals, organizations, and governments may affect not only emergency response, but also emergency planning. For example, in the aftermath of Hurricane Katrina, several local government officials stated that prior to the storm, communication across jurisdictional boundaries was more limited. However, because the disaster was not confined to these jurisdictional boundaries, many local governments worked together in response and recovery. Human resource directors reported that communication increased significantly, leading to the sharing of information in various areas, such as classification and compensation (Goodman and Mann 2008). Thus, the reliance of small local governments on others for aid in times of crisis may lead to shared knowledge and experiences. In this case, the contributing factor to increase preparedness would likely be access to greater resources rather than population and size of the city.

However, generally, cities with greater populations often have greater resources and more capabilities in administrative functions (Gerber and Robinson 2009). Gerber
and Robinson (2009) found that administrators in larger cities believe they are more likely to understand the federal requirements of the National Response Plan compared to administrators in smaller cities. In their research on financial conditions and administrative capacity in preparedness efforts in cities with populations of 30,000 and larger, Gerber, Cohen, and Stewart (2007) concluded, “There is clearly something unique about larger populations in terms of having a positive effect on preparedness. It is possible that as city population increases, their governments are required to handle a wider variety of complex administrative tasks” (180).

Because larger cities are often the sites of major catastrophes, the risks of disasters are often perceived as greater, especially in homeland security areas such as terrorism, which may result in more attention to emergency preparedness activities (Rahm and Reddick 2011; Gerber and Robinson 2009; Gerber, Cohen, and Stewart, 2007). As stated by Rahm and Reddick (2011):

Larger-sized cities tend to have a greater level of preparedness being in a large urban centre. Most notable disasters and terrorist attacks have occurred in city centers, such as the terrorist attacks of 11 September 2001 on New York City and Hurricane Katrina in New Orleans . . . . Large cities deal with more complex planning problems than smaller-sized cities and they generally devote more resources to emergency management. Larger sized cities commonly have greater administrative capacity to deal with these complex issues. (3)

Examining the impact of population on local government issues is a common occurrence in public administration and local government literature (Wolf and Amirkhanyan 2010; French 2001; Folz and Abdelrazek 2009; Caruson and MacManus 2008; Berman and Korosec 2005) and investigating cities with populations greater than 100,000 is a common category in both public administration and emergency management
Cities with populations of 100,000 and greater often are described as large (Svara 2008), and as Reddick (2007) states, planning, especially homeland security, is critical to cities in this category. Thus, in this study, based on the population for the entire study, those cities of 100,000 or greater are considered as the larger population. Finally, because larger cities are thought to have greater administrative capacity for emergency planning and is believed to have greater resources, the third hypothesis for this study was derived. It states: As the size of the city increases, the number of HR disaster policies in local government emergency plans also should increase.

However, beyond the issue of government structure is the fact that other actors, both inside and outside local government, also impact emergency preparedness. Policy entrepreneurs, who may include consultants, interest groups, or other elected officials, along with “interorganizational or regional planning committees” help to support emergency preparedness efforts” (Somers and Svara 2009, 186). Various elected officials also may positively influence efforts, especially when preparedness is viewed as a top priority. Because elected officials make important decisions in the aftermath of negative incidents, it is even more pertinent that they are involved in planning.

Regardless of the type of government or the size of the city, if department heads or managers do not participate in emergency planning or if they resist collaboration, preparedness efforts will suffer (Somers and Svara 2009). In essence, local government must make emergency planning a top priority. As those responsible for serving and protecting the members of a community, it is the duty of local government officials to create interorganizational and intergovernmental relationships that focus on preparedness
efforts. By working together to prepare for possible adverse events, local government employees bring a new level of protection to its citizens and community. Making emergency plans a priority will likely lead to a swifter response and more rapid recovery. Such dedication to preserving the community in times of crisis reveals a government that is responsive and committed to its citizenry, which builds citizen loyalty and trust in government. The long-term result, then, is a community that is not only resilient through adverse events, but also sustainable.

**Issues Faced by Local Governments in Emergency Planning & Preparedness**

Local government emergency management is multi-faceted (Perry and Lindell 2007), and involves many departments as well as citizens and volunteer groups. While events such as the terrorist attacks of 9/11 and Hurricane Katrina initiated increased efforts in homeland security and emergency management, the time, resources, and dedication to continuous efforts can require more than local governments have to offer or spare. Local government officials and employees know that emergency planning is important, but several problems often plague the process, which include lack of financial resources, lack of staff, lack of concern and the impact of politics, lack of knowledge, and public complacency.

**Lack of Financial Resources**

Lack of funds often is the first issue that emerges when government officials are asked about disaster planning. In a survey of Florida cities conducted by Caruson and MacManus (2005), city and county officials reported that the homeland security mandates that resulted from the September 11 terrorist attacks had the most significant impact on their budgets, both directly and indirectly. At the city-level, 52 percent of
officials reported that financial challenges ranked at the top of the list. Part of the problem is that “homeland security preparedness is an extremely expensive task, made even more fiscally burdensome for municipalities, which compared to counties, have fewer revenue resources but more first-responder responsibilities” (Caruson and MacManus 2005, 26). Gerber, Cohen, and Stewart (2007) also reported:

> Precisely because studies of natural disaster politics and policy note that capacity and commitment are not consistent across subnational governments, it is by no means obvious that local governments will demonstrate proactive behavior in doing the difficult and costly tasks associated with preparedness for a low probability, but high consequence, catastrophic terrorist event. (156)

Although the federal government’s expectations of local and state governments’ emergency management systems have increased, issues with funding have remained the same. Executive Director of the National Governors’ Association Ray Scheppach proclaimed that “the public sector has entered a period of perpetual fiscal crisis” and that municipalities often face significant challenges in their budgets (Reilly, Schoener, and Bolin 2007, 39). In addition, the National League of Cities’ reported that in 2004, cities were less able to meet their financial needs and were expected to follow the same pattern in 2005. In 2003, The Carl Vinson Institute of Government and the National Association of Counties reported that of 715 counties surveyed, 72 percent would experience budget shortfalls. The cause of the shortfalls included an increase in employee health benefits, an increase in pension costs, a decrease in tax revenues such as sales, income, and tourism, and a decrease in state funding (Reilly, Schoener, and Bolin 2007).

With a decrease in income revenue and an increase in budget expenditures, local governments seek projects to cut, which often affects emergency management programs.
Although the federal government offered more than $3 billion in federal grant programs to help state and local governments with preparedness and planning in 2008, not all locales received this funding (DHS 2008b). Funding becomes a leading problem in cities that have smaller budgets because not only is training expensive, but other necessities such as communications technology and protective gear that accompany training also are costly. In cities and towns with smaller populations, the limited revenue does not allow for the extras that are necessary to be as prepared as the federal government prefers, even with federal assistance (Gerber, Cohen, and Stewart 2007).

Receiving federal assistance is not an easy process, and many times, members of local government who try to navigate the federal grant process become frustrated and give up. Not only is the language of grant applications complex, but the effort to apply for such grants requires someone who is willing to devote the time to grant writing in addition to daily position responsibilities. With budget cuts, many cities must do more with less staff, meaning that daily position responsibilities are added. Adding another duty such as grant writing for emergency preparedness is highly unlikely.

**Lack of Staff**

Thus, the second major resource problem faced by local governments is lack of staff. Many cities nationwide felt the impact of a struggling economy in recent years that resulted in program cuts, decreased funding, and layoffs. In July 2010, *USA Today* reported that up to 400,000 state, county, and local employees were likely to be laid off as a result of decreases in local revenue and decreases in federal funding (Davidson 2010). Just the month before, in June 2010, state and local governments cut 10,000 jobs, which “was down from 85,000 job losses the first five months of the year and about
190,000 since June 2009” (Davidson 2010, 01). Unfortunately, many times, planning departments are the first to experience cuts.

In March 2009, the director of planning and development for the city of Clovis, California, said nine employees, one-third of his department, were laid off (Benjamin 2009). That same year, in Tulsa, Oklahoma, the mayor announced that 37 positions with the city would be cut. The cuts would affect “parks, emergency management, planning and transit operations; grounding the police helicopters and selling off police horses; selling off hundreds of city vehicles; reducing tree trimming, and cutting back on supplies and training” (Tulsa World 2009, editorial page). In the Jacksonville, Florida area, in September 2010, only two individuals in emergency services and management lost their positions, but a total of 12 positions were eliminated (Mitchell 2010). Instead of eliminating positions, some cities chose to decrease the number of operating hours for some departments. For instance, in San Rafael, California, the city posted on their website, “Please note that due to budget cuts and staffing reductions, the Planning Division Counter will be CLOSED on Tuesday and Friday afternoons (between the hours of 12:45 pm and 5:00 pm)” (City of San Rafael 2011).

However, obstacles facing local government regarding planning projects are not a new occurrence. As early as 1979, researchers reported that most state and local governments lacked the staff to create emergency plans, and in a study by the Society for Human Resource Management, 40 percent of those surveyed said their organizations did not have a plan in place (Mushkatel and Weschler 1985). Yet, emergency management-related offices are not the only programs that have faced problems. With increased attention on homeland security, many local governments have been forced to devote time, money, and staff to those efforts. For instance, several Florida county officials reported
the greatest problems that accompanied homeland security initiatives were the administrative and management responsibilities, which demanded not only more time, but also more staff. They stated that financial constraints were a close second (Caruson and MacManus 2005). Officials explained that as threat levels increase, more personnel are needed for security, training, and planning, which also results in the need for money to supplement overtime pay (Caruson and MacManus 2005, 27). Thus, cities not only face problems with the monetary resources for preparedness, but also the number of personnel who can devote time to those efforts (Perry and Mankin 2005).

**Lack of Concern and the Impact of Politics**

In addition to the struggle within local government, lack of concern also plagues many communities. Public officials as well as community residents are knowledgeable about the risk of the disaster, but many do not see the potential threat as a high priority. According to Berke (1998), “Many people view natural hazard risks, especially the long-shot ones posed by low probability/high consequence events, as facts of life and acts of nature that are often inexplicable and cannot be completely avoided” (77). In a study conducted by Berke and Wilhite (1988), only 17 percent of California planning directors ranked earthquakes as high priority even though 56 percent were aware of the risk. Unfortunately, in many cases, it is not that preparedness efforts are not important to public officials, but rather that federal money for emergency management efforts is easier to obtain after a disaster has devastated an area instead of prior to when it is just a possibility (Healy and Malhotra 2009; Waugh 1999).

Thus, it is not shocking that the amount of spending for relief efforts is considerably greater than those for preparedness. From 1985 – 2004, “the federal
government spent an average of $3.05 billion on disaster relief and $195 million on disaster preparedness annually” (Healy and Malhotra 2009, 393). Wolensky and Wolensky (1990) offer additional reasons local government officials give less attention to disaster planning. First, some public officials do not see value in spending time or money on preparedness efforts because the effects of the disaster cannot be foretold. “Billions of US dollars have been spent on disaster preparedness in the last several years, yet we still lack confidence in the amount and allocation of funds for preparedness” (Drake et al. 2007, 1). A problem that arises with emergency management efforts is that it is difficult to measure the performance of programs, especially for disasters that might one day occur. However, Healy and Malhotra (2009) estimate that “the total value of a dollar of preparedness spending for all future damage reduction is about $15” (388).

Still, most public officials want to allocate spending to projects that have more immediate effects because it translates into greater political impact. Projects to reduce air pollution, crime, and transportation issues are a greater sell to constituents than projects that concentrate on planning and preparing for a possible disaster (Berke 1998). Healy and Malhotra (2009) found that constituents do not reward politicians for spending on disaster preparedness projects, but on an increase in relief spending when a disaster has occurred. Thus, for elected officials, very little incentive exists for allocating funds to disaster preparedness.

**Lack of Knowledge**

Finally, in local governments where planning has been attempted, some public officials found that implementation was difficult and problematic (Wolensky and Wolensky 1990). Of the four phases of emergency management, the preparedness phase
is the most troublesome for local governments. Preparedness and implementation of preparedness plans require cooperation among various departments and agencies within the city government, and as lead decision makers, local officials must initiate and be responsible for cooperation.

Local officials are especially important in the policy implementation process. Increasingly, they must master networks and “administrative structures involving multiple nodes (agencies and organizations) with multiple linkages.” Local governments must manage the vast majority of critical duties associated with emergency preparedness while first-responders . . . . provide the first line of defense. (Caruson and MacManus 2006, 523; McGuire 2002, 600)

Within local government, department heads and their staffs have the ability to assist local officials with preparedness. Because preparedness plans require attention in many areas, the professional staffs that are pertinent to effective government should be included in the emergency planning process. The knowledge and new perspectives would assist public officials with many difficulties faced in both planning and implementation.

“Elected officials ultimately will determine goals, the scope of services, and broad approaches to allocating resources, and they depend heavily on professional staff to raise issues, identify needs and trends, and formulate strategies” (Somers and Svara 2009, 181).

**Public Complacency and its Impact on Elected Officials’ Decisions**

Beyond the doors of city hall, local officials face more difficulties, one of which may be the most difficult to overcome. Because the public does not see the immediate effects of planning initiatives, they often believe that other problems are more pressing. “As with public safety and disasters, repeated threats and warnings cause numbness among the public, resulting in underestimation and under-preparedness” (Kapucu 2008,
In 2004, Florida was impacted by four major hurricanes, and in a survey sent to emergency managers following the storms, respondents reported an increase in apathy regarding evacuation throughout the season, which caused concern among public officials because the last of the four hurricanes, Jeanne, was the most severe. Surprisingly, many citizens did not evacuate, and emergency managers reported that many citizens did not even seem “eager to obtain the necessary supplies” (Kapucu 2008, 254).

Thus, as preparedness in the home becomes less important, it seems only reasonable that the same attitudes would be held for government spending. In a nationwide study of preparedness conducted by New York University post-Katrina, more than 50 percent of Americans stated that it is nearly impossible to be very prepared for floods and hurricanes, terrorist bombings, and flu epidemics. In addition, less than three months after Katrina, 27 percent of Americans stated that they did not want to think about preparedness and 18 percent said preparedness was unnecessary (P. Light 2005).

However, the perceived threat of certain disasters may also impact the importance of preparedness to public officials and their citizens. For example, 30 years passed between Hurricane Betsy and Hurricane Katrina, and although Hurricane Gustav threatened the New Orleans areas just three years later, the damage of that hurricane was not nearly as extensive as that of the prior two. Thus, much of the public may believe that because a major disaster recently occurred, a second major disaster hitting the same area is highly unlikely. Also, when protective barriers such as levees or dams have been re-constructed after a recent disaster, the public is less likely to view the effects of another disaster as high risk (Wilson et al. 2008).
Evidence indicates that low-probability events, such as natural hazards, are systematically misjudged. For example, people tend to perceive flood disasters as somewhat predictable periodic phenomena, instead of as probable and random phenomena. Furthermore, most people tend to believe that if a major flood disaster occurs in a certain year, no major flood disasters will occur for some time after. Additionally, many people believe that when levees, dams, and other structures are newly constructed, disasters are completely prevented. (Wilson et al. 2008, Paragraph 8)

Finally, the American public has become complacent about the risks and effects of disasters, leading many to not perceive most disasters as high risk (Stephen 2005; XiaoHu and Kapucu 2008). However, complacency for some types of disasters may be based on geography and population. While “the public typically questions whether security systems are adequate and develops an active interest in making security robust enough to keep safety features reliably operational” (Khripunov 2010, 36), personal risk in terms of terrorism is low. Joslyn and Haider-Markel (2001) conducted a survey of individuals in Kansas in 2001 about their perception of terrorist risks, and found that “almost 76 percent of respondents perceived most Americans as somewhat or very worried about becoming a victim of a terrorist attack,” but “nearly 80 percent of the sample was not personally worried about becoming a victim of terrorism” (311). Also, women and those who watched the news were most likely to support counterterrorism policies and “respondents with higher levels of education are less likely to support counterterrorism policies, except in the case of protecting critical infrastructure, which these individuals are more likely to support” (Joslyn and Haider-Markel 2001, 313).

Generally, individuals who are less educated, receive their news from television, and tend to be more liberal in their political beliefs are more likely to rank terrorism as high risk (West and Orr 2005; Joslyn and Haider-Markel 2001; Hausman, Hanlon, and
Seals 2007). Although many individuals may rank terrorism as a major concern, most do not feel they are prepared if an attack were to occur. “A 2003 national poll by the American Red Cross showed that 67% of respondents felt being prepared was very important, but only 22% reported feeling very prepared whereas 60% felt a catastrophe would occur where they lived” (Hausman, Hanlon, and Seals 2007, 1074). Thus, while many believe terrorism is a possibility, it is unlikely that the appropriate preparedness steps are taken. According to Hausman, Hanlon, and Seals (2007):

The percentage reporting that they had made a family plan had fallen from 40% in 2003 to 32% in 2004, and the percentage reporting that they had received specific emergency planning information from their employers had dropped from 55% in 2003 to 48% in 2004. These reported reductions in specific forms of preparation over time are a cause for concern to those interested in an orderly and effective response to emergency conditions. (1074)

Along with the fact that emergency preparedness activities are often the first to be targeted in budget cuts, if elected officials perceive that their constituents are not supportive of these activities, they are less likely to place these efforts at the top of the priority list. Although lack of resources, the impact of politics, and public complacency may significantly impact planning, some local governments approach preparedness activities from different perspectives, especially when they have actually faced a disaster.

**Local Government Emergency Planning in the Aftermath of Disaster**

Although the public may not be convinced of the effectiveness of preparedness efforts, for local government officials, recent catastrophes serve as reminders that planning for disasters is important. In a review of three Louisiana hurricanes, Mann (2009) found that following Hurricane Betsy in 1965, the improvements to emergency planning at the local government that were suggested by the civil defense department
were not followed. However, as Hurricane Gustav approached New Orleans in 2008, many of the improvements that were suggested following Hurricane Katrina in 2005 were made (Mann 2009).

Yet, major catastrophes hit the United States prior to the hurricane of August 2005, including the 2001 attack on the World Trade Center and the 2004 Florida hurricanes. The attack on September 11, 2001, was one that Americans, nor the rest of the world, will forget. While chaos ensued Manhattan that tragic day, many public servants and their families gave their time and their lives not only in the hours and days following the tragedy, but months and years following. Many lessons were learned from the 9/11 attacks after public officials and employees witnessed communication breakdowns, decision-making barriers, and basic problems in efficiency and effectiveness. As a result, attention to emergency preparedness became a top priority, and several improvements were made in the immediate aftermath, some of which included:

- recognition of “the fragility of the city’s systems” and development of the “organizational capacity for emergency response”;
- creation of “daily, high-level, early-morning coordination meetings. . . . to ensure that communication and feedback was routinized”;
- recognition that emergency response workers need the most up-to-date communication technologies;
- increased attention to coordination among departments, especially emergency response workers and a re-examination of standard operating procedures;
- the importance of “decentralization of municipal administration,” especially during times of crisis;
- a greater concentration on conflict management and compromise, especially among political parties, which can hinder response and recovery after disasters;
• “there is no substitute for inspiring leadership during a crisis”;

• “public service and the ethos of public service are as important as ever.” (Cohen, Eimicke, and Horan 2002, 29-31)

However, the work did not stop there. Public officials and various government agencies saw the need and the opportunity to strengthen preparedness and response programs. One suggestion offered in the aftermath was that coordination with other entities could play an important role in preparedness.

Problems with intergovernmental cooperation and coordination in the aftermath of the 9/11 terrorist attacks exemplified the importance of including as many departments as possible in emergency planning. Prior to 9/11, federal-state relationships and state-local relationships were emphasized, but as new, nationwide approaches to security developed, relationships among all three levels of government became a priority (Caruson and MacManus 2006). As a result of the establishment of the federal government’s Department of Homeland Security, states and local governments began creating their own initiatives, with some relying on the framework and policies of the federal government system.

Although lessons of the importance of government preparedness and response were obviously learned post-9/11, the focus of the efforts was homeland security. In 2004, the United States faced disaster of a different kind when nearly every region of Florida was impacted by one of four hurricanes that hit the state. “The 2004 Florida hurricane season was the worst in Florida’s history, with four hurricanes causing at least 47 deaths and some $45 billion in damages” (Smith and McCarty 2009, 127). In its aftermath, Florida’s state and local governments became some of the leading experts on planning, response, and recovery. Much of the progress stemmed from an intensive
eight-week planning session held in December 2004 where experts laid out a recovery plan for the counties that were most damaged (Schwab 2005).

One of those counties was Volusia County, which was first impacted by Hurricane Charley, then by Hurricane Frances approximately three weeks later, and finally by Hurricane Jeanne, three weeks after Frances. Initial estimates of damage by the three hurricanes to Volusia County exceeded $560 million (Volusia County 2005). In a 2005 report, the Volusia County Emergency Management Division reported that in the three weeks between the latter two hurricanes, the problems faced during each were addressed before the next made landfall. In addition, municipal and county officials reported effective communication and coordination both within and across jurisdictions. Finally, “municipalities initiated several expedient and creative operations to address specific problems as they arose, such as addressing intra-jurisdictional public information issues, managing immediate flooding issues, working with adjacent municipalities, etc.” (Volusia County 2005, 5).

However, specific areas of improvement also were identified. Some locales reported that their emergency plans were out of date or non-existent, and that a county-wide program should be established that could help municipalities with planning projects. Other suggestions included training for all municipal officials, creation of a multi-jurisdictional evacuation plan, as well as a multi-jurisdictional re-entry plan (Volusia County 2005).

Yet, the 2004 hurricane season was not the first time Florida had been quick to respond to lessons learned from catastrophe. Following the 9/11 attacks, the state was one of the first to adopt “an intergovernmental approach to homeland security at the state level” by creating seven task forces whose focus was training and response to terrorism.
(Caruson and MacManus 2006, 523). Thus, for their response to the 2004 hurricanes as well as their ability and willingness to make improvements in the aftermath of disasters, Florida has been recognized as one of the leading states in emergency planning (Kapucu 2008) and further has gained great attention for the Florida Legislature’s creation of an Emergency Preparedness and Assistance Trust Fund which is funded through a surcharge on property taxes (Choi 2004).

The 9/11 attacks, the 2004 hurricanes, and the 2005 Hurricane Katrina incident are only a few of the disasters that had major impacts on the United States in the last 10 years. While most local governments understand the importance of preparedness, research has shown “past experience to be the greatest predictors of preparedness” with greater levels of preparedness through mandates and policies appear in the aftermath (Chen 2009, 35; Gerber and Robinson 2009; Svara and Somers 2009; Mann 2009).

Thus, for this study, the fourth hypothesis states: The number of disasters a local government has faced in the last five years is positively related to the number of HR disaster policies in the emergency plan.

**Local Governments’ Experiences with HR and Emergency Planning**

As explained in the previous chapter, public human resource management departments have undergone several identity changes since their inception, especially at the local government level. As disasters become more frequent due to increasing populations, developing in more hazard-prone areas, and disintegrating of environmental barriers, recovery spending also increases. Thus, it is in the best interest of local governments to take advantage of all the resources they have access to prior to a disaster.
Human resource management departments play an instrumental role in the daily functions of local government, and therefore, also have significant roles in times of disaster. The functions that HR departments are responsible for during normal operations also are important in times of crisis, if not more so. In 2005, the Society for Human Resource Management surveyed HR professionals regarding disaster preparedness in their organizations. Fegley and Victor (2005) stated:

Identifying employee perceptions of disaster preparedness helps HR professionals better comprehend employee awareness and knowledge of their organizations’ plans. This information is helpful to HR professionals in forming, revising and communicating their organizations’ disaster preparedness plans. (v)

Approximately 314 HR professionals completed the survey, with 80 percent employed in the private sector and 20 percent in the public sector. Although the response rate for the study was only 16 percent, the results provided basic information on both private and public sector preparedness plans. For instance, over 75 percent of respondents stated that their HR department participated in some aspect of their organization’s disaster preparedness plans, and the two functions that were most common included “communicating plans and procedures to employees and communicating information about available assistance programs: (Fegley and Victor 2005, 4). The report also revealed “the majority of HR professionals reported that HR played some role in forming their organizations’ disaster preparedness plans,” over 30 percent “formed disaster preparedness plans and procedures with equal input from other departments,” 29 percent “advised other departments that were primarily responsible for forming disaster preparedness plans and procedures,”18 percent reported “that HR was primarily responsible for forming all disaster preparedness plans and procedures”; and finally, 22
percent stated they did not participate in preparedness planning (7-8). Other important findings included:

- Over 50 percent reported having shelter-in-place plans and the majority of respondents said their organization had a fire/evacuation plan;

- Most reported their organizations had communication plans that communicated the status of the organization to employees through postings throughout the workplace, during staff meetings, and via company email;

- Plans accounted for employees in times of disaster, indicated a meeting location other than their primary location, and established an emergency number for employees to call for updates;

- Task re-orientation for employees was a high priority in almost 90 percent of organizations, with many employees taking on leadership positions in times of crisis;

- Nearly 75 percent stated that employees received response training;

- Approximately 30 percent address employee assistance programs.

The authors concluded that the 9/11 terrorist attacks and the effects of Hurricane Katrina revealed that HR departments play an important role in disaster preparedness with their organizations, and that “whatever the extent of HR involvement in this process, there is a need to continuously modify, evaluate and communicate disaster preparedness plans” (Fegley and Victor 2005, 21).

The federal government also has recognized the importance of disaster preparedness and now require that local governments have an emergency operations plan, within which cities are strongly advised to identify stakeholders and the resources available to them (GAO 2010). As part of the Post-Katrina Emergency Management Reform Act, FEMA was tasked with responsibility for creating a preparedness system for the nation. The agency stated that it is important for organizations to include key stakeholders in emergency planning and to allow these stakeholders the opportunity to
“suggest improvements in an EOP based on their accumulated experience” (Jenkins 2010, 4). Thus, as part of the new planning initiative, it is important for local governments to include all departments that have something to contribute to disaster management, which, as Goodman and Mann (2008) found, would clearly include human resource departments. Some of the areas that should be addressed include payroll, recruitment and retention, volunteer management, and communication.

**Payroll**

Payroll is one of the leading problems that should be addressed prior to a disaster. According to Goodman and Mann (2008), cities along the Gulf Coast experienced problems with payroll in the aftermath of Katrina because not only were banks closed and offline, but many computers and other electronic equipment were destroyed by storm surge. In Boulder, Colorado, where hurricanes are not a concern, other disasters threaten local governments and their citizens. The director of human resources agreed that payroll options in times of crisis should be addressed and added, “How we pay our people if our systems are down is an important issue” (Personal Interview 2011).

The Institute of Management and Administration (2008) stated that payroll problems often occur during times of emergency, and if they are not addressed prior to the disaster, major problems could occur. “You must have a plan or system in place to ensure that you can access and maintain payroll records and keep those paychecks coming despite damage” (10). In addition, organizations must also address how to handle business closings and overtime pay. For example, in one hospital on the Gulf Coast, employees were required to report to work when a hurricane approached and though they were given some pay, it was not in compliance with the Department of
Labor’s “specific criteria that apply when workers are required to stay onsite for 24-hour periods” (Institute of Management and Administration 2008, 10).

Payroll is a subject that is addressed in most business continuity plans, and Fegley and Victor (2005) reported that 63 percent of HR professionals that participated in the Society for Human Resource Management survey in May 2005 said their organization had a business continuity plan. Although large organizations were more likely than small organizations to have these plans in place, the majority of respondents said that their organization could continue operations for one month or more following a disaster.

**Recruitment and Retention**

Along with payroll and compensation issues, retention also may be a problem during times of crisis because employees may have other issues such as family and home protection that they believe to be greater priorities. An HR specialist with the city of Amarillo, Texas, said that an important HR issue that must be clearly established is a written “procedure for accounting for absence due to the disaster, in other words, if a full-time employee cannot come to work due to the event” (Interview with HR specialist 2011). Another question that should be addressed is whether un-worked time should be charged to annual leave, sick leave, or unpaid leave.

In recent years, the economic issues the nation has faced have resulted in downsizing of staffs. In addition, “many organizations have eliminated resources and funding for employee retention programs as part of cost-cutting initiatives” (Buford 2006, 521). Thus, the result could be the loss of talented human capital through transfers and new employment in organizations that have attractive compensation and benefits programs. In an interview in February 2011, the director of human resources and risk
manager for the City of Manhattan, Kansas, added that “staffing of the human resources department and continuity of functions in event of staff shortages” also are important issues to address for times of crisis. Organizations should remember that “despite the abundance of job candidates, there is still a critical shortage of specialized talent in human services” (Buford 2006, 521). Thus, it is important that hiring policies for times of crisis are addressed, and that the roles that current employees must fulfill in times of crisis are explained clearly. In a February 2011 interview, the Deputy City Manager for the City of Temecula, California, said:

The key is to establish position checklists for each position in the disaster organization. This allows employees to become familiar and receive necessary training to perform a function during and emergency. This is where you can assign primary and back-up personnel to the disaster organization and conduct training so your team is ready to address any emergency.

However, some problems that appear during times of crisis in local government do not necessarily have to be addressed by current staff. In times of emergency, volunteers often are available to help in response and recovery.

Volunteer Management

Recent disasters have brought more attention to the use of volunteers in disaster response (Majchrzak and More 2011). Some government officials find that the presence of volunteers in a post-disaster situation only adds to the chaos of the situation, which itself, is often hard to manage (Brudney and Gazley 2009). Brudney and Gazley (2003) added that some organizations may not have the capacity to supervise and coordinate volunteers and reported one state-level official as stating, “We are a disaster management agency, not a volunteer management agency” (520). However, volunteers have proven to
be effective when government resources are overwhelmed. Much of the negativity surrounding the use of volunteers has focused on the coordination of the resources they bring to post-disaster response. Thus, many human resource departments have become the primary contact. A management analyst for Livermore, California stated during an interview in February 2011 that an important aspect that HR departments should focus on is their “knowledge of volunteer management and coordinating volunteers during a time of disaster.” The analyst added:

In our city, HR also holds multiple positions (food unit leader, personnel/volunteer unit leader, Logistics Chief, etc.) in our City's Emergency Operations Center, and helps to manage the use of volunteers, both existing and spontaneous. We have a volunteer plan that includes how to set up a volunteer center and we have trained volunteers and City staff on how to run the volunteer center.

In assisting with the coordination of volunteers, HR departments also can assist in ensuring availability of “bilingual skills resources, which should be identified and ready for deployment as needed,” which was suggested by the deputy director of human resources in Alexandria, Virginia in an interview in February 2011. The HR director for Fargo, North Dakota, who also participated in a February 2011 interview, added that HR personnel, “must deal effectively with work-related injuries during emergencies” and “with emergency identification for non-employees involved in the emergency.”

Thus, the role of the human resource department in volunteer management is one that may be needed in local governments nationwide. Because they understand the value of human capital and possess the background in effective talent management, working with volunteers may be an additional function that human resource departments could assist with in times of crisis. As Kapucu (2008) argues, “While there is nothing inherently wrong with having particular lead agencies at a given stage, it can result in the
exclusion of other perspectives, to the detriment of a holistic disaster management approach” (244). Thus, to ensure that individuals are used effectively and efficiently in times of disaster, those who know the most about the human capital available to local government, human resources departments, should be considered a top “resource” in emergency planning.

Communication

When disaster strikes, local government is the first to respond. And, no matter the size of disaster, several departments within local government are called upon. As stated by the assistant human resources manager of Bend, Oregon, in a February 2011 interview, “HR must work closely with City Police, Fire and Public works Departments regarding pre/post disaster planning and follow-up. In some municipalities various functions may not be within the skill or expertise of HR.”

Thus, it is important that all departments are involved in emergency planning. Because the entire organization will be involved in response and recovery, it is important that communication is open and flexible (Vandevelde 2003). Additional comments from local government officials included:

Recognize that our HR offices are strategic partners with the entire EOC team and that [issues affected employees] are not just an HR responsibility. (HR Director, West Valley City, Utah)

My involvement has been as a facilitator guiding departments on what emergency planning they should be doing and ensuring that they practice and communicate those plans. (HR Generalist, Bryan, Texas)

The Fire Chief is the Emergency Management Coordinator. However, HR and some other bureaus would be entrusted with some of these responsibilities. (Deputy Director of Human Resources, Allentown, Pennsylvania)
Emergency planning is handled under the leadership of the Fire Chief in coordination with Police Department and other relevant agencies. We do have training on evacuation for employees and do periodic drills. HR has representatives who participate in these planning and execution activities. (Human Resources Director, Greenville, South Carolina)

Because so many departments are involved in disaster response and recovery, the complexity of the environment can contribute to communication failures. Therefore, it is imperative for all departments to collaborate and share information that is vital to effective response and recovery. As stated by Celik and Corbacioglu (2010):

> In such a complex system, acquiring relevant information and exchanging it among multiple emergency organizations from different jurisdictions are vital. If a sub-unit of the system fails to attain and transmit the required information, the whole system will likely fail to adapt to the requirements of the risk environments in which it operates. The success of the whole system is associated with the quantity and quality of information that flows among the connected units. Hence, information flow and the connectivity of components are positively related. (138)

The information flow between personnel and among departments allows for effective decision-making, which is often spontaneous in times of crisis. In order to respond as conditions change in the aftermath of disaster, open communication must be present. “Organizations and individuals learn through processes of knowledge acquisition, information dissemination, information interpretation, and organizational memory” (Kapucu, Bryer, Grayev, and Arslan 2010, 3).

Thus, as the department that handles human capital, training, and other employee issues, the human resource department serves as a vital link in not only presenting HR issues that would be important during times of crisis, but also as effective communicators for emergency planning and response. The communication skills regarding the practice
of HRM and the knowledge of vital processes result from not only education, but also experience.

For example, of the 204 respondents that completed the survey for this study, 58 percent of respondents had at least a master’s degree, and over 83 percent reported not only working in HRM for more than 10 years, but also as a manager, director, or administrator. In addition, over 33 percent reported working in their current position for more than 10 years. Thus, as a member of local government emergency planning teams, the background, experience, and institutional memory that human resource representatives bring to emergency planning can lead to a local government that is both resilient and sustainable. Hence, the expectation for this study is that involvement and years of experience would positively affect local government emergency planning, which leads to the fifth and sixth hypotheses for this study. These state:

The level of involvement of human resource professionals in emergency planning is positively related to the number of HR functions included in local government emergency plans.

The number of years HR professionals have worked in HR is positively related to the number of HR functions in local government emergency plans.

Summary

Catastrophes such as the 9/11 terrorist attacks and Hurricane Katrina offer local governments the ability to learn from mistakes and address the weaknesses of their plans. The institutional memory of those who have experienced catastrophe is an invaluable resource that local governments can rely on to improve preparedness plans by including human resource issues that should be addressed before a disaster occurs.

Although the history of emergency management in the United States has experienced significant changes through the years, government at all levels have
recognized the importance of preparedness efforts. While local governments face many obstacles and are impacted by many variables, many recognize that involvement of all departments is necessary. The purpose of local government is to serve and protect its community, which cannot be accomplished without employees. Especially in times of disaster, employees of local governments often face the same struggles as the community they serve. The ultimate goal of human resources departments is to serve and protect local government employees, who, especially in times of crisis, need to focus on the task at hand. Thus, at no time is the knowledge of human resource managers more relevant and necessary than in emergency planning, in preparing the organization for the impact of the crisis, in identifying the human capital and their skills in response, and in strategic planning for long-time recovery.

In the following chapters, current HR practices will be revealed and discussed. Chapter 4 will review the methods used for this study and Chapter 5 will follow with information on respondents as well as some characteristics of local governments in which they work. The findings of the statistical tests as well as explanations will also be discussed in this chapter. The conclusion will include implications and suggestions for future research.
CHAPTER IV
METHODS

Research on emergency preparedness at the local government level was near non-existent until the 1980s when scholars of political science, public administration, and sociology began to give the area more attention (Wolensky and Wolensky 1990). Human resource management, on the other hand, is a well-researched discipline, both in the public and private sector. From a business perspective, attention on emergency preparedness in the form of business continuity plans is a popular topic – so popular, in fact, that in 1993, FEMA created the Emergency Management Guide for Business and Industry: A Step-By-Step Approach to Emergency Planning, Response, and Recovery for Companies of All Sizes.” In the guide, FEMA (1993) suggests including human resource departments on the emergency planning team. However, research on human resource management as part of a local government’s preparedness plan has been more limited.

In 2008, Goodman and Mann conducted interviews with local government administrators and officials along the Mississippi Gulf Coast to find if the comprehensive emergency management plans established guidelines and protocols for managing employees before, during, and after Hurricane Katrina. The Mississippi Gulf Coast is threatened most every year by hurricanes, but surprisingly, many of the local governments affected by Hurricane Katrina had not addressed HR issues in their emergency plans. Many stated, however, that HR issues would be addressed in updated plans (Goodman and Mann 2008). The purpose of this study is to extend the research of
Goodman and Mann to a national level and investigate the involvement of human resource professionals in emergency planning.

**Research Questions and Hypotheses**

While not every region of the United States faces the threat of hurricanes, most cities are threatened by some type of disaster. Obviously, Hurricane Katrina was a major catastrophe that required a variety of resources for preparedness, response, and recovery in Gulf Coast communities. Human resources are necessities before, during, and after disasters, and thus, should be included in local government emergency planning. As described in the literature review, variables such as collaboration among departments, form of government, population, and previous experience with disasters often impact local government emergency planning. In addition, recent catastrophes such as 9/11 and Hurricane Katrina have shown the importance of including all departments in emergency planning. HR directors nationwide have addressed several HR issues that should be included in emergency plans, which many learned through direct experience. Thus, based on previous research and interviews with local HR directors, two research questions and six hypotheses have been derived for this study. The primary research questions for this project are:

What are some basic characteristics of local governments in which human resource professionals are included in the emergency planning process?

How do human resource professionals impact local government emergency planning?

Further, the following hypotheses also were identified:

H1: Local governments that include HR managers or representatives in their emergency planning meetings are more likely to include more HR disaster policies in their emergency plans.
H2: Council-manager forms of government are likely to include more HR disaster policies in their emergency plans.

H3: As the size of the city increases, the number of HR disaster policies in local government emergency plans also should increase.

H4: The number of disasters a local government has faced in the last five years is positively related to the number of HR disaster policies in the emergency plan.

H5: The level of involvement of human resource professionals in emergency planning is positively related to the number of HR functions included in local government emergency plans.

H6: The number of years HR professionals have worked in HR is positively related to the number of HR functions in local government emergency plans.

Population and Participants

Human resource managers, directors, and administrators from cities across the United States with a population of 50,000 to 249,999 were chosen as the sample for this study. While it is important to study locales with populations less than 50,000 as well as those with populations of 250,000 or greater, medium-sized cities often have employees with a wide range of experience. For example, Watson and Hassett (2004) state that in most cases, more experienced managers can be found in larger city governments, but only after having worked in smaller governments previously. In addition, many city managers also “take recent graduates under their wings who desire to pursue city management as a career [and] after an appropriate time . . . . the younger person is ready to begin his or her first assignment as a city manager in a smaller city” (Watson and Hassett 2004, 193). However, not all managers seek employment in larger cities, but because compensation tends to increase with city size and population, many remain in medium-sized cities rather than smaller cities where compensation is typically less (Watson and Hassett 2004). Thus, studying medium-sized cities offers the perspectives
of individuals with a wide range of experience, and may provide information that would offer some understanding of those cities with populations under 50,000 as well as those with populations of 250,000 or greater. Also, because this study is the first to investigate the involvement of public human resource professionals in emergency planning, very little information on characteristics of cities and involvement of the HR department in the emergency planning process is available. Thus, this study could provide valuable information to both academics and practitioners that would assist in developing more thorough emergency plans for local governments nationwide.

The 2007 Census identified approximately 19,495 cities and towns in the United States. A total of 608 cities with populations of 50,000 to 249,999 were identified, and using the cities’ websites that were available through the 2007 Census, the author collected information on the human resource director, manager, or other administrator responsible for human resource decisions for that city. If information could not be obtained via the Internet, the author contacted the human resource department. The HR director, manager, or administrator was chosen as the desired respondent for two reasons. First, as the primary administrator of the department, the HR director or manager is expected to have considerable experience working in local government as well as high educational attainment (Hays and Kearney 2001). Second, as a department manager, it is likely that the HR director or manager has some contact with other department managers, especially in the area of strategic planning (Berman et al. 2001).

Addresses and emails for potential respondents in three cities were not obtained, although the author attempted to obtain the information several times via telephone as well as through the city website. Of the 605 respondents contacted, 252 surveys were started and 212 were completed, resulting in an initial response rate of 35 percent, which
is comparable to other studies that have surveyed HR directors (Hays and Kearney 2001). Participation was voluntary and respondents could choose to keep all information confidential, three of which chose that option.

**Survey Design and Instrument**

For this project, a survey was employed as the primary method of data collection. Using surveys as the main data collection method has both pros and cons. First, surveys are inexpensive. For this project, respondents could answer a printed version of the survey (see Appendix A), which was mailed to them with a letter of introduction to the project, and fax the completed survey to the researcher. Respondents also could choose to complete the survey via surveymonkey.com rather than faxing the printed survey. While some chose to complete the printed version of the survey, the majority completed the electronic survey. There is very little expense with Web surveys, and the use of a company such as surveymonkey.com allows researchers the ability to use templates for survey creation. In addition, when using electronic surveys, researchers can send a survey link directly to the respondent’s e-mail so that the person can respond by simply clicking on that link. Further, surveys allow researchers the ability to reach a specialized population, which in this case, included HR professionals nationwide.

One of the disadvantages of mail surveys is that return of the completed survey may take a significant amount of time. Using a fax machine and the web survey allowed participants immediate access to submitting survey results, which could be completed at their convenience. Using electronic surveys also allowed the researcher to email reminders about survey completion with a direct link for easy access.
However, some criticisms and weaknesses of using surveys also should be mentioned. First, although the information was addressed to the HR administrator, the researcher cannot be sure that in every case that it was the administrator who actually completed the survey. Also, Dillman (2007) reported that the response rate in a survey of businesses was higher with mailed surveys than with Web surveys. Another disadvantage is that some respondents may get frustrated with technology problems such as browser issues, slow connection speeds, or even compatibility problems. In most cases, if respondents have problems with the survey, it is unlikely that they would contact the surveyor. However, individuals are becoming more accustomed to Web surveys, and technology issues, such as compatibility problems, are less likely today than in the past.

The survey was created by the researcher and then reviewed by the researcher’s dissertation committee in the Department of Political Science and Public Administration at Mississippi State University. Upon approval from the committee, the project proposal, the letter and emails to potential respondents, along with the survey were approved by the Institutional Review Board at Mississippi State University.¹

The survey was informally divided into four sections. (See Appendix A). The first section consisted of questions that asked about the respondent’s title and the involvement on the emergency planning committee for the city. The second section consisted of two questions with a total of 28 sub-questions that inquired about human resources functions that may be included in the respondents’ local government emergency plan. The two questions were followed by questions that asked about the employee system used in the city as well as the existence of a new employee orientation. The final question for this

¹ Approved by Mississippi State University Institutional Review Board on November 20, 2010 (IRB #10-320).
section consisted of 12 sub-questions that focused on common HR practices during times of disaster. The third section of the survey consisted of questions that inquired about the types of disasters the respondent’s city might face, the disaster history of the city in the previous five years, and the basis of the city emergency plan. The final section of the survey asked questions regarding city government structure and the respondent’s demographic information such as length of time in the respondents’ current position, years worked in human resource management, education, and race.

For several questions, a five-point Likert scale was used to better gauge the strength of feeling and attitude regarding specific activities and beliefs. “Likert-scale items are commonly used to investigate the attitudes of respondents to a series of written or verbal statements” (Dittrich, Francis, Hatzinger, and Katzenbeisser 2007, 3). Those statements are then categorized on a numerical scale and are summed “to measure a common characteristic of the item set for a respondent” (Dittrich, Francis, Hatzinger, and Katzenbeisser 2007, 4). Some Likert-scale questions were measured using strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree. Others were measured using highly likely, likely, neither likely nor unlikely, unlikely, or highly unlikely. Originally, the researcher assigned 1 for highly agree, 2 for agree, 3 for neither agree nor disagree, 4 for disagree, and 5 for highly disagree, but during data analysis, the numerical scale was reversed where 1 represented strongly disagree, 2 represented disagree, 3 represented neither agree nor disagree, 4 represented agree, and 5 represented highly agree. The numerical values were reversed in order to follow the guidelines of a traditional Likert scale, which has the positive end of the scale as represented by higher numbers (Hartley and Betts 2010). The same change was made for the Likert-scale questions using highly unlikely, unlikely, neither likely nor unlikely, likely, and highly
unlikely. Some of the survey used forced-choice questions with multiple answers while others used open-ended questions, which allowed the respondent to comment openly about human resource management, previous disasters, and other important topics.

Data Collection

Overall, using a survey as the primary data collection for this project was an effective method. The nationwide survey was conducted in January and February 2011 by the author, and was funded by the John C. Stennis Institute of Government, which is directed by Dr. W. Martin “Marty” Wiseman. Contact with potential respondents occurred in four waves over a six-week period. (See Appendix B). For the first wave of contact, a letter of introduction was addressed to each individual and was sent on John C. Stennis Institute of Government letterhead. The letter described the goal of the project, the author’s interest in the topic, a fax number, and a description of a forthcoming email that each potential respondent would receive that included a link to the electronic survey. Rather than contacting the respondent for the first time via email, the researcher wanted to establish a positive rapport and provide an introduction through a personal letter in hopes that potential respondents would pay closer attention to the forthcoming email that contained the link to the survey.

The first letter also contained a printed version of the survey along with the fax number for those respondents that might prefer completing a paper version. Dr. Marty Wiseman of the John C. Stennis Institute of Government reported that for this particular population, the Stennis Institute has had some success with the use of fax machines as a method of survey submission. Therefore, the researcher felt that having an alternative method for respondents to submit completed surveys would be beneficial.
The second wave of contact consisted of an email that was sent to only those who, at that point, had not submitted their survey via fax. The email included a short summary of the purpose of the research along with a link to the survey website and a password to access the survey. A copy of the original letter also was sent as an attachment in case the respondent had not received the original letter.

The third wave of contact consisted of a second email, which served as a reminder email, a short summary, and a link to the survey website with the password. Again, only respondents who had not completed the survey up to that point were contacted.

Throughout the process, as respondents completed the survey, the researcher followed up with a thank you email.

The fourth wave of contact consisted of a third email, which was again sent to those who had not responded. The email contained a short summary with a link to the website. In the final three waves of contacts, respondents were asked to complete the survey by a specified date.

**Data Analysis Procedure**

As stated previously, some respondents chose to complete the print version of the survey and fax the results to the surveyor. Those results were then entered into SurveyMonkey.com by the researcher. All of the survey results were then transferred from SurveyMonkey.com to Excel and then to SPSS. Some surveys had extensive information missing, resulting in deletion of 48 surveys. (See Table 4.1).
Table 4.1  Deletion of Surveys from Study

<table>
<thead>
<tr>
<th>Number of surveys deleted</th>
<th>Reason for deletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Did not progress beyond Question 5</td>
</tr>
<tr>
<td>2</td>
<td>Did not progress beyond Question 6</td>
</tr>
<tr>
<td>11</td>
<td>Did not progress beyond Question 9</td>
</tr>
<tr>
<td>2</td>
<td>Did not progress beyond Question 12</td>
</tr>
<tr>
<td>2</td>
<td>Did not complete Question 13</td>
</tr>
<tr>
<td>2</td>
<td>Did not complete Question 14</td>
</tr>
<tr>
<td>3</td>
<td>Multiple surveys from the same city submitted</td>
</tr>
<tr>
<td>1</td>
<td>Submitted both print and electronic survey</td>
</tr>
</tbody>
</table>

A total of 204 surveys were then available for analysis, resulting in a response rate of 34 percent. Further, several of the 204 surveys included in the study contained minimal missing information, which was addressed through modal replacement. (See Appendix C). Modal replacement is a common method for handling missing values in surveys, and was chosen as the appropriate method for this study for those surveys that contained missing information (Hair et al. 2005).

Another important aspect of analysis for a nationwide study is ensuring that the population is equally distributed. The Federal Emergency Management Agency has divided the nation into 10 regions, which are numbered from Region I to Region X (See Table 4.2). Because the study focuses on emergency management practices, the FEMA regions were used in examining the distribution of the population. As displayed in Table 4.2, the response rate per region ranged from 22 percent to 48 percent, with the largest response rate from FEMA Region VIII, which includes six states. Region VI followed with a response rate of 47 percent, which included Texas, the state with the second-largest population in the study. Overall, the response from the 10 regions was normally distributed with no extreme response rates from any region.
Table 4.2  FEMA Regions and Representation of Regions in Study

<table>
<thead>
<tr>
<th>FEMA Region</th>
<th>States**</th>
<th># of Surveys Mailed to Region</th>
<th>% of Surveys Mailed to Region</th>
<th># of Surveys Received from Region</th>
<th>% of Surveys Received from Region</th>
<th>Response Rate by Region (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region I</td>
<td>CT, MA, ME, NH, RI</td>
<td>38</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>Region II</td>
<td>NY, NJ **</td>
<td>23</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Region III</td>
<td>DE, MD, PA, VA, WV ***</td>
<td>21</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Region IV</td>
<td>AL, FL, GA, KY, MS, NC, SC, TN</td>
<td>96</td>
<td>16</td>
<td>36</td>
<td>18</td>
<td>38</td>
</tr>
<tr>
<td>Region V</td>
<td>IL, IN, MI, MN, OH, WI</td>
<td>102</td>
<td>17</td>
<td>30</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Region VI</td>
<td>AR, LA, NM, OK, TX</td>
<td>74</td>
<td>12</td>
<td>35</td>
<td>17</td>
<td>47</td>
</tr>
<tr>
<td>Region VII</td>
<td>IA, KS, MO, NE</td>
<td>28</td>
<td>5</td>
<td>9</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>Region VIII</td>
<td>CO, MT, ND, SD, UT, WY</td>
<td>31</td>
<td>5</td>
<td>15</td>
<td>7</td>
<td>48</td>
</tr>
<tr>
<td>Region IX</td>
<td>AZ, CA, NV</td>
<td>165</td>
<td>27</td>
<td>48</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Region X</td>
<td>ID, OR, WA</td>
<td>27</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>37</td>
</tr>
<tr>
<td>Total:</td>
<td>47 States</td>
<td>605 Mailed Surveys</td>
<td>100*</td>
<td>204 Received Surveys</td>
<td>100</td>
<td>Response Rate: 34%</td>
</tr>
</tbody>
</table>

* Column may not equal 100% due to rounding.
** Some states did not meet the requirements of this study because of the population requirements and were excluded. These include: Vermont (Region I) Puerto Rico (Region II), Virgin Islands (Region II), District of Columbia (Region III), Hawaii (Region IX) and Alaska (Region X).

Summary

Overall, the methods used for this study produced an acceptable response rate that will assist with understanding the involvement of HR professionals in local government emergency planning. Although, as discussed, survey research has some weaknesses, the response rate for this study was acceptable for public administration (Hays and Kearney 2001) and emergency management research. In addition to the options of faxing the
printed survey and completing an electronic survey, researchers may want to also include the option of returning the survey via mail. However, the information received from the 204 respondents offers researchers and practitioners in public administration and emergency management some insight into local government emergency planning.

In the next chapter, the results from analysis of the hypotheses and the implications of those findings will be discussed. Finally, Chapter 6 will offer both scholars and practitioners further insight into the involvement of HR professionals in emergency planning and propose direction for future research and planning.
CHAPTER V
RESULTS

Demographics and Descriptive Statistics

The purpose of this study has been to explore the level of involvement of human resource departments in emergency planning. To explore involvement, a nationwide study of human resource professionals in cities with populations between 50,000 and 249,999 was conducted. Of 605 respondents contacted, 204 completed the survey, resulting in a response rate of 34 percent. Of the 204 that completed the survey, 61.8% were females and 38.2% were males (Table 5.1). In the age category, 3.4% were 65 and older, 33.8% were 55-64, 39.7% were 45-54, 19.1% were 35-44, were 3.4% and 0.5% were 18-24 (Table 5.1).

In the category of educational attainment, the majority of respondents, 59.8%, have a master’s degree, law degree, or doctorate degree. Specifically, 3.9% had a doctorate degree, 5.4% had a law degree, 49.5% had a master’s degree, 32.4% had a 4-year degree, 4.4% had a two-year degree, 2.9% had a high school diploma, and .5 percent had less than a high school diploma (Table 5.1). In the category of race, the majority of HR professionals, 85.8%, were white. Further, 8.3% were African American, 5.4% were Hispanic, and .5% were Asian. No respondents chose the categories Native American or Other (Table 5.1).
Table 5.1  Descriptive Statistics of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristic</th>
<th>N</th>
<th>Percent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>126</td>
<td>61.8</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>78</td>
<td>38.2</td>
</tr>
<tr>
<td>Age</td>
<td>18-24</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>35-44</td>
<td>39</td>
<td>19.1</td>
</tr>
<tr>
<td></td>
<td>45-54</td>
<td>81</td>
<td>39.7</td>
</tr>
<tr>
<td></td>
<td>55-64</td>
<td>69</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>65 or older</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>Education</td>
<td>Less than high school</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>High school</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>2-year degree</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>4-year degree</td>
<td>66</td>
<td>32.4</td>
</tr>
<tr>
<td></td>
<td>Master’s degree</td>
<td>101</td>
<td>49.5</td>
</tr>
<tr>
<td></td>
<td>Law degree</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Race</td>
<td>Asian</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>17</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>Caucasian</td>
<td>175</td>
<td>85.8</td>
</tr>
<tr>
<td>Population</td>
<td>50,000-99,999</td>
<td>136</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>100,000 – 250,000</td>
<td>68</td>
<td>33.3</td>
</tr>
<tr>
<td>Role in Current Position</td>
<td>HR Supervisors</td>
<td>171</td>
<td>83.8</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>33</td>
<td>16.2</td>
</tr>
<tr>
<td>Years in Current Position</td>
<td>Less than 1 year</td>
<td>14</td>
<td>6.9</td>
</tr>
<tr>
<td></td>
<td>1-3 years</td>
<td>45</td>
<td>22.1</td>
</tr>
<tr>
<td></td>
<td>4-10 years</td>
<td>76</td>
<td>37.3</td>
</tr>
<tr>
<td></td>
<td>11-15 years</td>
<td>44</td>
<td>21.6</td>
</tr>
<tr>
<td></td>
<td>16-20 years</td>
<td>10</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>More than 20 years</td>
<td>15</td>
<td>7.4</td>
</tr>
</tbody>
</table>

* Percentages may not equal 100% due to rounding.

* Total number of respondents is equal to 204.

The majority of respondents, 66.7%, worked in cities with populations between 50,000 and 99,999 while the remainder, 33.3% worked in cities with populations between 100,000 and 249,999 (See Table 5.1). The missing values for the variables pertaining to
demographic characteristics were replaced either with the actual value or with modal replacement (See Appendix C, Table 1).

The respondents were composed of human resource directors, managers, or administrators as well as human resource representatives. The characteristic that separated these two groups was that directors, managers, or administrators were ultimately responsible for decision-making for their departments while the second group works in or with the department. Of the two groups, 83.8% were considered supervisors while 16.2% were not supervisors (See Table 5.1).

As demonstrated by their experience and education, the survey respondents are experienced in their craft thus allowing them to provide the information needed for this study. When asked how long they have been employed in their current position, 7.4% chose the category more than 20 years, 4.9% chose the 16-20 years category, 21.6% chose the 11-15 years category, 37.3% chose 4-10 years, and 22.1% chose 1-3 years. Finally, 6.9% said they have been in their current position less than 1 year (Table 5.1).

**Discussion of Research Questions**

Public administration, human resource management, and emergency management are important aspects of local government, which have complicated, but necessary relationships. Understanding these relationships and the factors that impact their successes and failures can contribute knowledge not only to each of the three areas, but also to the local government emergency planning process.

Following Hurricane Katrina, the study by Goodman and Mann (2008) revealed that many local governments on the Mississippi Gulf Coast had not included human resource issues in their emergency plans, and several local officials reported that as plans
were revised, these issues should be addressed. Thus, the goal of this study was to investigate the level of involvement of human resource personnel and issues in local governments nationwide and identify the characteristics of these governments that address HR issues in their plans. Based on this information, the two primary research questions for this study were:

What are some basic characteristics of the cities in which human resources professionals are included in the emergency planning process?

How do human resource professionals impact local government emergency planning?

To begin, the first research question investigates characteristics of local governments and emergency planning. Specifically, the question states: “What are some basic characteristics of local governments in which human resource professionals are included in the emergency planning process?” This question is important because very little research has focused on HR practices in local government emergency management. Therefore, best practices, trends, characteristics, and other foundational information is not readily available for HR professionals to learn from and build upon.

However, a few resources are available. In 2002, the Office of Personnel Management published “A Manager’s Guide: Traumatic Incidents at the Workplace” that identified six decision elements that “account for issues related to structural damage and personnel needs that are crucial to the maintenance of organizational functioning” (Perry and Mankin 2005, 179). Although the document provides some information on important aspects that managers should focus on for the well-being of employees, it does not address personnel issues such as payroll, discipline, and retention that are important when catastrophic disasters occur.
In their post-9/11 study regarding government continuity and emergency preparedness for terrorism events, Perry and Mankin (2005) offer one of the few studies that address HR issues. The authors identify six elements that managers should address during emergency planning. These elements include: operations relocation potential, organizational inventory, workplace protection, measures for extended operations, employee family outcomes, and documentation system (Perry and Mankin 2005). However, this study provides characteristics of only one large city that is described as having “an exceptionally high level of emergency preparedness” (Perry and Mankin 2005, 179).

Learning basic characteristics of cities of various sizes in various regions provides direction for researchers and practitioners to begin building HR plans for emergency preparedness, response, and recovery. Examining emergency planning in cities with different populations, threats, government structures, and other characteristics creates a starting point for discussion on the topic, which ultimately, could make a difference for local governments in times of crisis. Answering the first research question not only furthers the discussion of HR involvement and emergency planning, but also offers descriptive data of some cities that currently include HR professionals and some that do not.

The second research question, “How do human resource professionals impact local government emergency planning?” is important not only to the discipline of public administration, but also emergency management. Although the federal government began stressing the importance of private sector business continuity plans with the creation of The Standard on Disaster/Emergency Management and Business Continuity Programs, also known as NFPA 1600 (Clas 2008), “little attention has been paid to
planning for government continuity following disasters or terrorism” (Perry and Mankin 2005, 175). The focus on emergency planning for most local governments is on the protection of structures and citizens, but many governments do not plan for the “well-being of departments and their employees” (Perry and Mankin 2005, 178). While conducting the survey research for this study, many HR directors immediately stated that the HR department did not have any responsibility for emergency planning, which was completely handled by homeland security, emergency management, or some other emergency-related office. Although the letters of contact included with the survey explained that HR directors that do not participate in emergency planning have just as much to offer as those that do, some immediately dismissed the topic as well as the survey itself. However, many HR professionals were immediately receptive. As one local government HR director stated:

Training programs teach us that we are part of the Logistic Section in the ICS model, and that we are supposed to organize people to help where needed. However, there are no examples that I have found that give us best practices, that tell us how to access mutual aid, that help us think ahead regarding how many positions will need to be filled, what types of positions will need to be filled, how you keep county departments running, while still staffing the EOC positions, what happens when your EOC teams starts dropping from exhaustion, how to respond to spontaneous volunteers, how do you get and organize volunteers you need, etc. etc. etc.

Thus, the study is one that can significantly impact HR departments and other local government departments nationwide. Understanding the level of involvement of HR directors in emergency planning and sharing their knowledge and experience may increase interest and awareness. For instance, for emergency managers who are not trained in human resources, understanding the importance of skill assessment for both
essential and non-essential employees may translate into additional assistance in response and recovery. The result, then, may be a new perspective for local government emergency managers or homeland security directors.

**Discussion of Variables**

To answer the research questions, six hypotheses were identified and tested using One-Way ANOVA, which is “a technique for analyzing the way in which the mean of a variable is affected by different types and combinations of factors” (Bewick, Cheek, and Ball 2004, 130). One-Way ANOVA is a statistical method that is used when an independent variable is categorical, or has two or more categories, and the dependent interval variable is normally distributed (UCLA 2011a, Section 11). Using One-Way ANOVA allows for an examination of “differences in the means of the dependent variable broken down by the levels of the independent variable” (UCLA 2011a, Section 11). In addition, the level of significance for this study was established at the $p<0.05$ level. Finally, the Levene statistic was used to analyze homogeneity of variance, or, in other words, to ensure that the variances of the groups are not significantly different. If the Levene statistic is greater than .05, then the variances of groups are not considered to be statistically significant and thus, can be compared (Field 2008).

After narrowing the study to 204 usable surveys, the variables used were then identified from the dataset and descriptive analyses were performed. The dependent variables for this study are HR Functions and HR Disaster Policies. The independent variables for this study are HR Participation, Council-Manager, Population, Previous Disasters, Level of Involvement, and Years Working in HR.
The first research question was analyzed with Hypotheses 1 through 4, which were tested using One-Way ANOVA. Hypothesis 1 used Survey Question 4, Hypothesis 2 used Survey Question 19, and Hypothesis 4 used Question 13. Hypothesis 3 was based on Survey Question 2, which asked about the city of employment and then, used population data from the U.S. Census. By examining the relationship between the independent variables, HR Participation, Council-Manager, Population, and Previous Disasters, and the dependent variable, HR Disaster Policies, a baseline understanding of similarities of local governments that include common human resources activities in their emergency plans may be revealed.

The second research question was analyzed with Hypotheses 5 and 6, which also were tested using One-Way ANOVA. Hypothesis 5 used Survey Question 46 and Hypothesis 6 used Survey Question 18. The independent variables, Level of Involvement and Years Working in HRM, are characteristics of HR managers that may influence the dependent variable of both hypotheses, HR Functions included in local government emergency plans. However, before discussing the results of the hypotheses testing, it is first important to understand how each variable was constructed.

**Independent Variables**

*HR Participation*

One of the basic building blocks of this study is HR participation and its relationship with local government emergency planning. To determine the participation of human resource professionals in emergency planning, in Question 4 of the survey, respondents were asked, “Do you or a member of the human resources department
regularly participate in emergency planning meetings?” and choices included either don’t know, no, or yes.

Overall, of the 204 respondents, 65.7% reported that they regularly participate in emergency planning meetings in their locales, 33.3% stated they did not regularly participate with emergency planning, and 1% said they did not know if they or another representative regularly participate in emergency planning meetings with their local government (Table 5.2). For the variable HR Participation, respondents who chose don’t know or no were coded as 0, and those who answered yes were coded as 1. The result was 34% coded as 0 and 66% coded as 1. These results are similar to those of Fegley and Victor (2005), who found that over 75% of HR professionals in both the private and public sectors participated in emergency planning with their organization.

**Council-Manager**

The independent variable, Council-Manager, was created from the answers from Question 19, Form of Government, in which respondents were asked, “What is the form of government in your city?” Respondents could choose among council-manager, mayor-council, commission, town meeting, and other. For the variable Council-Manager, all of those who indicated their form of government was based on the Council-Manager form were coded as 1 and all others were coded as 0. Of the 204 respondents, 62.3% described their local government as a council-manager form of government, 33.8% chose council-mayor form of government, 2.0% chose commission, and 2.0% chose other (Table 5.2).
Population

For the population variable, the 2007 United States Census was used. The majority of respondents, 66.7%, worked in cities with populations of 50,000 through 99,999, while the remainder, 33.3% lived in cities with populations of 100,000 through 249,999 (See Table 5.2). Based on that information, cities with populations between 50,000 and 99,999, or less than 100,000, were coded as 0, and cities with a population of 100,000 through 249,999, or populations greater than 100,000, were coded as 1. The result was 67% coded as 0 and 33% were coded as 1.

Previous Disasters

To determine whether local governments had experienced one or more disasters in the previous five years, in Question 13, respondents were asked, “In the last five years, how many disasters has your city faced?” and could choose from 0, 1, 2, 3, and 4 or more. Answers ranged from 0 to 4 disasters in the last five years. There were 27 missing values for this variable, which were identified using data from the FEMA (2011) website on state disaster declarations. Of the 204 respondent cities, 29.9% had not experienced any disasters in that timeframe, 34.3% experienced one disaster in the last five years, 19.6% experienced two disasters in the last five years, 9.3% experienced three disasters in the last five years, and 6.9% experienced four or more disasters in the last five years (See Table 5.2). For this variable, answers were coded into five categories, from 0-4, and were based on the actual number of disasters experienced in the last five years with the exception of those that experienced more than 4, which were coded as 4.
Table 5.2  Descriptive Statistics of Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristics</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
<td>Participate</td>
<td>134</td>
<td>65.7</td>
</tr>
<tr>
<td></td>
<td>Do not participate</td>
<td>68</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Form of Government</td>
<td>Council-Manager</td>
<td>127</td>
<td>62.3</td>
</tr>
<tr>
<td></td>
<td>Mayor-Council</td>
<td>69</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>Commission</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Town Meeting</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Population</td>
<td>50,000-99,999</td>
<td>136</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>100,000 – 249,999</td>
<td>68</td>
<td>33.3</td>
</tr>
<tr>
<td>Previous</td>
<td>0</td>
<td>61</td>
<td>29.9</td>
</tr>
<tr>
<td>Disasters</td>
<td>1</td>
<td>70</td>
<td>34.3</td>
</tr>
<tr>
<td>(in last 5 years)</td>
<td>2</td>
<td>40</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>19</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td>4 or more</td>
<td>14</td>
<td>6.9</td>
</tr>
<tr>
<td>Level of Involvement</td>
<td>Very involved</td>
<td>54</td>
<td>26.5</td>
</tr>
<tr>
<td></td>
<td>Somewhat involved</td>
<td>75</td>
<td>36.8</td>
</tr>
<tr>
<td></td>
<td>Not involved</td>
<td>73</td>
<td>35.8</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Years Working in HRM</td>
<td>Less than 1 year</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>1-3 years</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>4-10 years</td>
<td>24</td>
<td>11.8</td>
</tr>
<tr>
<td></td>
<td>11-15 years</td>
<td>42</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>16-20 years</td>
<td>32</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td>More than 20 years</td>
<td>96</td>
<td>47.1</td>
</tr>
<tr>
<td></td>
<td>Do not work in HRM</td>
<td>1</td>
<td>.5</td>
</tr>
</tbody>
</table>

**Level of Involvement**

In Question 4b of the survey, respondents were asked, “To what extent would you say you or another representative of the human resources department are involved with emergency planning in your city?” and answer choices included don’t know, not involved, somewhat involved, and very involved. A total of 35.8% said they are not involved with emergency planning and 1.0% said they do not know if they or any other
representative in their department regularly participates in emergency planning. In addition, 36.8% said they are somewhat involved in emergency planning while 26.5% said they are very involved (Table 5.2). Respondents that chose Don’t Know or No were coded as 0, Somewhat Involved as 1, and Very involved as 2.

Thus, over 63% of all respondents have some involvement with emergency planning in their local government, which is contrary to the overall findings of Goodman and Mann (2008) in their study following Hurricane Katrina in which the majority of HR professionals were not involved. However, this percentage is comparable to the findings of Reddick (2007), who investigated homeland security issues, in which 87 percent of city managers, reported high levels of collaboration among city government departments.

*Years Working in HRM*

In Question 18 of the survey, respondents were asked “How many years have you worked in the field of human resource management?” and could choose from less than 1 year, 1-3 years, 4-10 years, 11-15 years, 16-20 years, and more than 20 years. Of the 204 respondents, 47.1% reported working in HRM for more than 20 years, 15.7% said they have worked in HRM for 16-20 years, 20.6% who reported 11-15 years, 11.8% reported working in HRM for 4-10 years, 2.9% reported 1-3 years, 1.5% said they have been working in HRM for less than 1 year, and .5% did not hold a position in HRM (Table 5.2).

The variable was recoded as a dichotomous variable with less than 1 year, 1-3 years, 4-10 years coded as 0 and 11-15 years, 16-20 years, and more than 20 years coded as 1. This variable contained 2 missing answers. Because this variable was recoded into
a dichotomous variable, those who did not answer were coded as 0, or 10 years or less. (See Appendix C, Table 1). The result was 17% coded as 0 and 83% coded as 1.

**Dependent Variables**

*HR Disaster Policies*

The first dependent variable, HR Disaster Policies, is used in the first four hypotheses and refers to common human resources activities included in local government emergency plans. The variable was created from Question 10 in the survey, which consisted of 12 Likert-scale items. (See Appendix A). Specifically, the question stated, “Below are items used to determine the degree of implementation by your city for various policies regarding common HR practices during times of disaster. Please indicate the level of your agreement or disagreement with the following items: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree.” To follow the traditional method of Likert scales, the numbers were re-assigned so that 1 represented the negative end of the scale, highly disagree, and 5 represented the positive end of the scale, highly agree. The sum of the 12 scale items from each respondent produced a total score between 12-60, which was the numerical value representing the variable HR Disaster Policies, whose mean was 36.99 and standard deviation was 7.51. The alpha coefficient for this variable was .855. Seven of the 12 individual variables contained missing information, which also was addressed through modal replacement.(See Table 5.3).
### Table 5.3  Descriptive Statistics of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description of Policy</th>
<th># of Missing Values</th>
<th>Mode</th>
<th>Explanation of Data Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiring Practices</td>
<td>My local government has policies that address hiring practices during states of emergency.</td>
<td>1</td>
<td>2</td>
<td>Because the missing value was in an anonymous survey, the mode for the variable as a whole was used.</td>
</tr>
<tr>
<td>Temp Workers</td>
<td>My local government allows for the immediate hiring of temporary workers.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from Texas, whose mode was also 4. The mode, then, was used for the missing value.</td>
</tr>
<tr>
<td>Shortage Pay</td>
<td>My local government adjusts pay to account for labor shortages during times of disaster.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Pay Differential</td>
<td>My local government has a pay differential for employees who work during times of declared disasters.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Furloughs</td>
<td>My local government has policies that address employee furloughs during states of emergency.</td>
<td>2</td>
<td>2</td>
<td>Both missing values were from the state of Texas. The mode for the state of Texas was also 2. The mode, then, was used.</td>
</tr>
<tr>
<td>Comp Pay</td>
<td>My local government has separate policies that address overtime/comp pay during states of emergency.</td>
<td>1</td>
<td>2</td>
<td>The mode for the state of Texas also was 2. The mode, then, was used for the missing value.</td>
</tr>
<tr>
<td>Retention</td>
<td>My local government has policies that address employee retention during states of emergency.</td>
<td>1</td>
<td>2</td>
<td>The mode for the state of Texas also was 2. The mode, then, was used for the missing value.</td>
</tr>
<tr>
<td>Discipline</td>
<td>My local government has streamlined policies for disciplining and terminating employees during states of emergency.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Counseling</td>
<td>My local government mandates counseling for employees during states of emergency.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Cross-train</td>
<td>My local government cross-trains employees in preparation for emergencies.</td>
<td>1</td>
<td>4</td>
<td>The mode for the state of California also was 4. The mode, then, was used for the missing value.</td>
</tr>
<tr>
<td>Aid</td>
<td>My local government has mutual aid agreements with other cities, counties, states.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Transportation</td>
<td>My local government has identified transportation needs and resources.</td>
<td>1</td>
<td>4</td>
<td>Because only 1 respondent from South Carolina completed the survey, the mode was used for the missing value.</td>
</tr>
</tbody>
</table>
The 12 sub-questions in the survey were divided into two major areas, which include Workforce Management and Preparedness, Response, and Recovery. Workforce management focuses on human resources activities that are important in planning for times of disaster, and include policies regarding compensation, discipline, and retention.

The second area addresses human resources issues that are important to pre- and post-disaster planning. The results of the 12 sub-questions are available in Table 5.4, but it is important to discuss each of the 12 practices that form HR Disaster Policies.

<table>
<thead>
<tr>
<th>HR Categories and Functions**</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workforce Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiring Practices</td>
<td>7.4%</td>
<td>31.9%</td>
<td>24.0%</td>
<td>26.0%</td>
<td>10.8%</td>
<td>3.01</td>
</tr>
<tr>
<td>Temp Workers</td>
<td>1.5%</td>
<td>8.8%</td>
<td>11.8%</td>
<td>56.9%</td>
<td>21.1%</td>
<td>3.87</td>
</tr>
<tr>
<td>Shortage Pay</td>
<td>8.3%</td>
<td>39.7%</td>
<td>32.8%</td>
<td>11.8%</td>
<td>7.4%</td>
<td>2.70</td>
</tr>
<tr>
<td>Pay Differential</td>
<td>8.3%</td>
<td>42.6%</td>
<td>23.0%</td>
<td>19.6%</td>
<td>6.4%</td>
<td>2.73</td>
</tr>
<tr>
<td>Furloughs</td>
<td>7.8%</td>
<td>45.1%</td>
<td>23.5%</td>
<td>16.7%</td>
<td>6.9%</td>
<td>2.70</td>
</tr>
<tr>
<td>Comp Pay</td>
<td>5.9%</td>
<td>32.4%</td>
<td>19.6%</td>
<td>26.5%</td>
<td>15.7%</td>
<td>3.14</td>
</tr>
<tr>
<td>Retention</td>
<td>6.4%</td>
<td>47.5%</td>
<td>28.9%</td>
<td>12.3%</td>
<td>4.9%</td>
<td>2.62</td>
</tr>
<tr>
<td>Discipline</td>
<td>10.3%</td>
<td>52.9%</td>
<td>21.6%</td>
<td>11.3%</td>
<td>3.9%</td>
<td>2.46</td>
</tr>
<tr>
<td>Cross-train</td>
<td>2.0%</td>
<td>18.6%</td>
<td>19.6%</td>
<td>47.5%</td>
<td>12.3%</td>
<td>3.50</td>
</tr>
<tr>
<td><strong>Pre- and Post-Disaster Plans</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling</td>
<td>8.8%</td>
<td>51.5%</td>
<td>26.0%</td>
<td>9.8%</td>
<td>3.9%</td>
<td>2.49</td>
</tr>
<tr>
<td>Aid</td>
<td>1.0%</td>
<td>3.4%</td>
<td>10.3%</td>
<td>48.0%</td>
<td>37.3%</td>
<td>4.17</td>
</tr>
<tr>
<td>Transportation</td>
<td>2.5%</td>
<td>10.8%</td>
<td>26.5%</td>
<td>43.6%</td>
<td>16.7%</td>
<td>3.61</td>
</tr>
</tbody>
</table>

N = 204

* Rows may not equal 100% due to rounding.

** Explanations of terms can be found in Appendix C, Table 2.

Without a workforce, local governments could not respond nor recover from a disaster. Therefore, planning must include HR issues that may arise during times of crisis. Task-re-orientation, or cross-training, allows local government employees the ability to take on new responsibilities in times of crisis. As mentioned in the literature
review, because of their pro-active response during Hurricane Katrina, the Department of Wildlife and Fisheries became the lead department for search and rescue efforts for Hurricane Gustav (Right approach 2008, August 30). Thus, it is important for all levels of government to ensure that employees understand their tasks in times of crisis. Of the 204 respondents surveyed for this study, 58.8% agreed or highly agreed that their local governments cross-train in preparation for emergencies. In addition, several HR professionals emphasized the importance of cross-training:

The key is to establish position checklists for each position in the disaster organization [which] employees to become familiar and receive necessary training to perform a function during an emergency. This is where you can assign primary and back-up personnel to the disaster organization and conduct training so your team is ready to address any emergency. Develop checklists and train employees on all jobs that they might be responsible or because when emergency hits, you never know who will be in town to report to the EOC. Deputy City Manager, Temecula, California

Role clarification is critical as it relates to continuation of operations. Director of Human Resources, Sarasota, Florida

Staffing of the HR department and continuity of functions in event of staff shortages affecting Human Resources [are important issues]. Director of Human Resources and Risk Manager, Manhattan, Kansas

In addition, because disasters can cause excessive damage to an area, temporary workers are often hired to help local governments return to normalcy. In the survey for this study, 78% of respondents agreed or highly agreed that a policy allowing for the immediate hiring of temporary workers was included in their local government’s emergency plan. However, 39.3% disagreed or highly disagreed that their local government has policies that address hiring practices during states of emergency, while
only 36.8% agreed or highly agreed. However, although local governments must post positions in times of normalcy, disasters require immediate attention, which often means that the time is not available for advertising (Rubin et al. 2005). Thus, hiring practices become pertinent to immediately filling positions needed for response and recovery.

In fact, one of the leading complaints of local governments following Hurricane Katrina was that some federal government requirements in the immediate aftermath of the storm were not possible. For example, in a 2006 interview conducted by the author, an emergency management director for a small town on the Mississippi Gulf Coast explained that when fires were burning along one road that was inaccessible due to debris, he immediately hired a resident who had a bulldozer on his property so firefighters could reach the fire and extinguish the flames. The primary concern was that the fire would spread quickly to the debris that resulted from Hurricane Katrina’s storm surge and high winds. However, several months later, FEMA stated that the director did not follow the correct procedure of advertising and accepting bids for the work.

In addition, hiring practices also are important because local government employees who are also disaster victims are often unable to return to work for personal reasons such as housing issues. In these situations, including employee absence policies in emergency plans would allow the employee to understand the consequences of absenteeism as well as give local governments guidelines to follow. As an HR Specialist from Amarillo, Texas, said in an interview conducted by the author, “Procedures for accounting for absence due to the disaster [are important]. In other words, if a full-time employee cannot come to work due to the event, must their unworked time be charged to Annual Leave? Sick leave? Unpaid leave?” Thus, it is important to include these types of policies in emergency plans.
To investigate if these types of issues are addressed in emergency plans, respondents were asked whether their local government has policies that address employee furloughs during states of emergency, in which, 52.9% disagreed or highly disagreed. Further, over 63% of human resource professionals disagreed or highly disagreed that a policy was included in emergency plans that addressed discipline and termination policies during states of emergency. Finally, 51.9% disagreed or highly disagreed that their local government had policies regarding employee retention during states of emergency.

The human resources director for Chula Vista, California, recommended, “Have policies in place that address reporting, pay, retention, and return to work.” These types of issues are important to emergency plans because employees are important to local governments. Some disasters are widespread, thus resulting in public service workers having to face issues at home and at work, and the priority for most employees will be their families. The HR manager for Novato, California, said:

We are disaster service workers by virtue of our public employment, so in the event of a disaster, our energies will be devoted to response and recovery. It's important to remember, however, that employees will have their own concerns, chiefly, the welfare of their families, so provisions need to be made to assist employees in staying in touch with them.

In Encinitas, California, the local government has such a policy, which helps employees ensure their family’s safety in the aftermath of a disaster and also report to work. The HR director for the city explained, “Employees will put their families first in a disaster. We have made emergency shelter and food provisions for employees' families so that the employees can be available for disaster response.”
Many local governments also have plans that help employees deal with the stress faced both at home and at work after a disaster occurs. Many offer counseling, but few local governments in this study require employees to meet with counselors. In fact, over 60% of respondents disagreed or highly disagreed that their local government mandates counseling for employees during states of emergency.

Beyond the safety of families is the issue of compensation, which over 42% of respondents agreed or highly agreed that their local government included policies in the emergency plan that address overtime pay in times of disaster. In addition, over 50% of respondents disagreed or highly disagreed that their local government has a pay differential for employees who work during times of declared disasters. Because pay can be a difficult and complicated issue, especially following a crisis, the human resources manager for Cathedral City, California, suggested, “Make sure to be able to run a ‘standard’ payroll, and deal with overtime, etc. later.”

As issues that HR departments may assist with, aid agreements and transportation needs also are often included in emergency plans. Transportation was a controversial issue following Hurricane Katrina in New Orleans, but over 60% of respondents agreed or highly agreed that their local government identified transportation needs and resources.

Regarding aid, 48% of respondents agreed that their local government has mutual aid agreements with other cities, counties, and states. In an interview with the author in November 2006, George Bass, fire chief for the City of Long Beach, Mississippi, stated that a locale in Florida contacted him in the immediate aftermath to offer help in recovery. He stated that a mutual aid agreement was not included in the city’s emergency plan, but that it should be a priority.
Although HR departments are not always included in emergency planning, local governments often address some important HR policies in their emergency plans. Thus, creating one variable in which several of these policies can be examined initially will offer basic insight regarding local government preparedness.

**HR Functions**

Hypotheses 5 and 6 test the second dependent variable, HR Functions, which was created from 28 Likert-scale items included in questions 5 and 6 of the survey. (See Appendix A). Specifically, the question stated: “The following list contains specific pre-disaster and post-disaster activities that some cities have incorporated as part of their emergency preparedness plans. Please indicate your level of agreement with the following statements regarding human resource management and emergency planning. Please choose: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree.” As with HR Disaster Policies, to follow the traditional method of Likert scales, the numbers were re-assigned so that 1 represented the negative end of the scale, highly disagree, and 5 represented the positive end of the scale, highly agree. The sum of the 28 scale items from each respondent produced a total score between 28-140, which was the numerical value representing the variable HR Functions, whose mean was 92.74 and standard deviation was 21.50. The alpha coefficient for this variable was .958.

Twelve of the 28 individual variables contained missing information, which was addressed through modal replacement. (See Table 5.5). As with HR Disaster Policies, modal replacement was used as the method for handling missing data. However, as described in Appendix C Table 3, further analysis was conducted to ensure the
approximation is more accurate. The overall results of each of the 28 activities can be
found in Table 5.6, but it is important to explain the functions used to create the variable.

The 28 functions were informally divided into four categories, which included Workforce
Management, Communication, Technology and Equipment Needs, and Post-Disaster Plans. In the area of Workforce Management, forecasting, which focuses on examining the workforce to understand the supply and demand of workers in a region, is an important characteristic in strategic human resource management. Finding reliable and talented employees in times of normalcy is often difficult and it becomes even more difficult in times of crisis (Goodman and Mann 2008; Harris 2006; S. Light 2005). In a post-disaster situation, the demand for employees may be high, but the supply may be low. As stated by French, Goodman, and Stanley (2008), “A common mistake many local governments make in disaster planning is to think about their human capital only after plans have been made for operations, infrastructure, and public relations” (69). However, 43.1% of respondents for this study agreed or highly agreed that their human resource office regularly forecasts the internal and external supply of employees, and 64.7% of respondents agreed or highly agreed that their human resource office continually assesses internal workforce availability. Yet, only 31.4% of respondents agreed or highly agreed that regular assessments of employee KSAs that would be useful for disaster response and recover are conducted regularly.
Table 5.5 Descriptive Statistics of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description of Function</th>
<th># of Missing Values</th>
<th>Mode</th>
<th>Explanation of Data Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>My human resources office continually assesses internal workforce availability.</td>
<td>2</td>
<td>4</td>
<td>Both missing values were from the state of Texas, whose mode also was 4. The mode, then, was used.</td>
</tr>
<tr>
<td>Secure Equipment</td>
<td>My human resources office has procedures regarding the securing of office equipment to lessen risk of physical harm in the event of a disaster.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Protect Info</td>
<td>My human resources office has procedures regarding securing office equipment such as electronic equipment and furniture to protect organizational information and property.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from the state of California, whose mode also was 4. The mode, then, was used.</td>
</tr>
<tr>
<td>Facility Problems</td>
<td>My human resources office has procedures to report facility problems such as physical damage that could increase risk and harm during a disaster.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from the state of Texas, whose mode also was 4. The mode, then, was used.</td>
</tr>
<tr>
<td>Org Structure</td>
<td>My human resources office helps develop the organizational structure in times of disaster.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Building Maps</td>
<td>My human resources office distributes building maps upon hiring that identify evacuation routes.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from the state of Florida. The mode for the state was 2, which appeared in 9 of the 17 responses. Thus, the mode for the state, 2, was used.</td>
</tr>
<tr>
<td>Response Resources</td>
<td>My human resources office has identified essential resources needed for disaster response and where they can be acquired.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from the state of Texas, whose mode also was 4. The mode, then, was used.</td>
</tr>
<tr>
<td>Recovery Resources</td>
<td>My human resources office has identified essential resources needed for disaster recovery and where they can be acquired.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from the state of Connecticut. Of the three responses from Connecticut, the mode was 2. However, because there were only two responses from the state, the mode for the variable as a whole was used.</td>
</tr>
</tbody>
</table>
Table 5.5 (continued)

<table>
<thead>
<tr>
<th>Worker Resources</th>
<th>My human resources office has identified essential resources for response workers.</th>
<th>2</th>
<th>4</th>
<th>One missing value was from California, whose mode was 4. The second missing value was from Missouri, which had four respondents, 2 of which answered 2 and 1 answered 4, resulting in a mode of 2. Because there were only three responses from Missouri, the mode for the variable overall, 4, was used.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Needs</td>
<td>My human resources office has identified transportation needs and resources.</td>
<td>1</td>
<td>2</td>
<td>The mode for the state of Texas was also 2. The mode, then, was used for the missing value.</td>
</tr>
<tr>
<td>Essential Roles</td>
<td>My human resources office assists in identifying pre- and post-disaster roles of essential personnel (beyond regular duties).</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Nonessential Roles</td>
<td>My human resources office assists in identifying pre- and post-disaster roles of non-essential personnel (beyond regular duties).</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Support</td>
<td>My human resources office has identified outside organizations/support services that could assist with mandatory important functions in times of disaster.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Planning Times</td>
<td>My human resources office established timeframes for disaster planning activities.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Email</td>
<td>My human resources office regularly communicates with employees by email regarding emergency preparedness.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Software</td>
<td>My human resources office has critical software and hardware necessary for continuity of operations such as payroll software.</td>
<td>1</td>
<td>4</td>
<td>The missing value was from Maryland. There were only two respondents from Maryland and the first respondent assigned a 3. Thus, because this value does not indicate agreement nor disagreement, the mode for the variable overall, 4, was used.</td>
</tr>
<tr>
<td>KSAs</td>
<td>My human resources office conducts regular assessments of employee knowledge, skills, and abilities (KSAs) useful for disaster response and recovery.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>CIS Counselors</td>
<td>My human resources office has procedures that include critical incident stress briefing counselors.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
</tbody>
</table>
Table 5.5 (continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Count</th>
<th>Mode</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMIT</td>
<td>My human resources office has a partner outside of the region that can help with HRM/IT needs during a disaster.</td>
<td>1</td>
<td>2</td>
<td>The missing value was from California, whose mode was also 2. The mode was used for the missing value.</td>
</tr>
<tr>
<td>Disaster Pay</td>
<td>My human resources office analyzes potential compensation issues that may arise post-disaster such as overtime and disaster pay.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Worker Supply</td>
<td>My human resources office regularly forecasts internal and external supply of employees.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Contact Lists</td>
<td>My human resources office regularly updates and distributes employee contact lists to key personnel.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Bargaining</td>
<td>My human resources office has collective bargaining agreement that address employment issues during emergencies or disasters.</td>
<td>3</td>
<td>4</td>
<td>The first missing value was from Maryland, whose mode also was 4. The mode was used for the missing value. The second missing value was from California, which had two modes, 2 and 4. Because the mode for the variable as a whole was 4, the same mode was used for this missing value. A third missing value was from Louisiana, which did not have a mode. Thus, the mode for the variable as a whole was used.</td>
</tr>
<tr>
<td>Season Email</td>
<td>My human resources office regularly communicates with employees by email during regionally high-risk times such as flu season or hurricane season.</td>
<td>2</td>
<td>4</td>
<td>The first missing value was from Texas, whose mode also was 4, which was used for the missing value. The second missing value was from Louisiana, which had a mode of 5, but had only 3 of 4 responses. Thus, the mode for the variable overall, 4, was used.</td>
</tr>
<tr>
<td>Locations</td>
<td>My human resources office has identified primary or secondary meeting locations for employees in the aftermath of a disaster.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Nonessential Schedule</td>
<td>My human resources office has a timeline for nonessential personnel to report to work post-disaster.</td>
<td>0</td>
<td>2</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Dissemination</td>
<td>My human resources office has identified methods of information dissemination before, during, and after a disaster.</td>
<td>0</td>
<td>4</td>
<td>No missing data.</td>
</tr>
<tr>
<td>Info Equipment</td>
<td>My human resources office has the equipment needed for post-disaster information dissemination.</td>
<td>0</td>
<td>3</td>
<td>No missing data.</td>
</tr>
<tr>
<td>HR Categories and Functions**</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neither agree nor</td>
<td>Agree</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------</td>
<td>---------</td>
<td>------------------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Workforce Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability</td>
<td>2.5%</td>
<td>15.2%</td>
<td>17.6%</td>
<td>47.5%</td>
</tr>
<tr>
<td>Org Structure</td>
<td>3.4%</td>
<td>18.1%</td>
<td>16.7%</td>
<td>42.6%</td>
</tr>
<tr>
<td>KSAs</td>
<td>5.4%</td>
<td>34.8%</td>
<td>28.4%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Worker Supply</td>
<td>3.4%</td>
<td>31.4%</td>
<td>22.1%</td>
<td>32.8%</td>
</tr>
<tr>
<td>Bargaining</td>
<td>12.7%</td>
<td>23.0%</td>
<td>20.6%</td>
<td>31.4%</td>
</tr>
<tr>
<td>Planning Times</td>
<td>6.4%</td>
<td>39.2%</td>
<td>19.1%</td>
<td>23.5%</td>
</tr>
<tr>
<td>Disaster Pay</td>
<td>2.9%</td>
<td>21.6%</td>
<td>12.3%</td>
<td>43.6%</td>
</tr>
<tr>
<td>Essential Roles</td>
<td>4.4%</td>
<td>17.6%</td>
<td>14.2%</td>
<td>43.1%</td>
</tr>
<tr>
<td>Nonessential Roles</td>
<td>4.9%</td>
<td>20.6%</td>
<td>19.6%</td>
<td>39.7%</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility Problems</td>
<td>5.4%</td>
<td>12.3%</td>
<td>12.7%</td>
<td>44.6%</td>
</tr>
<tr>
<td>Building Maps</td>
<td>9.3%</td>
<td>47.1%</td>
<td>14.7%</td>
<td>22.1%</td>
</tr>
<tr>
<td>Email</td>
<td>5.9%</td>
<td>39.7%</td>
<td>21.1%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Contact Lists</td>
<td>2.0%</td>
<td>18.6%</td>
<td>15.7%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Season Email</td>
<td>3.9%</td>
<td>15.2%</td>
<td>13.7%</td>
<td>47.1%</td>
</tr>
<tr>
<td>Dissemination</td>
<td>4.4%</td>
<td>28.9%</td>
<td>27.9%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Info Equipment</td>
<td>3.9%</td>
<td>18.6%</td>
<td>31.4%</td>
<td>31.4%</td>
</tr>
<tr>
<td><strong>Technology &amp; Equipment Needs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secure Equipment</td>
<td>7.4%</td>
<td>32.8%</td>
<td>20.6%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Protect Info</td>
<td>5.9%</td>
<td>25.0%</td>
<td>14.7%</td>
<td>38.2%</td>
</tr>
<tr>
<td>Software</td>
<td>2.5%</td>
<td>15.2%</td>
<td>18.1%</td>
<td>44.6%</td>
</tr>
<tr>
<td>HRMIT</td>
<td>3.9%</td>
<td>34.8%</td>
<td>29.9%</td>
<td>20.1%</td>
</tr>
<tr>
<td><strong>Post-Disaster Plans</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Resources</td>
<td>5.4%</td>
<td>25.0%</td>
<td>15.7%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Recovery Resources</td>
<td>4.9%</td>
<td>28.4%</td>
<td>14.2%</td>
<td>34.8%</td>
</tr>
<tr>
<td>Worker Resources</td>
<td>6.4%</td>
<td>22.1%</td>
<td>16.2%</td>
<td>39.2%</td>
</tr>
<tr>
<td>Transport Needs</td>
<td>6.9%</td>
<td>31.4%</td>
<td>26.5%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Locations</td>
<td>3.4%</td>
<td>22.5%</td>
<td>21.6%</td>
<td>35.3%</td>
</tr>
<tr>
<td>Noness. Schedule</td>
<td>4.4%</td>
<td>28.9%</td>
<td>27.9%</td>
<td>27.9%</td>
</tr>
<tr>
<td>CIS Counselors</td>
<td>3.4%</td>
<td>15.7%</td>
<td>10.8%</td>
<td>51.0%</td>
</tr>
<tr>
<td>Support</td>
<td>5.9%</td>
<td>25.5%</td>
<td>17.2%</td>
<td>37.3%</td>
</tr>
</tbody>
</table>

N = 204
* Rows may not equal 100% due to rounding.
** Explanations of terms can be found in Appendix C, Table 1.

In addition, as part of forecasting, task re-orientation becomes an important pre-disaster planning activity. As stated by Liou and Lin (2008), cross-training becomes a
necessity in preparedness efforts so that organizations can continue to operate in the aftermath of a disaster. When asked if their HR department assists with identifying pre- and post-disaster roles of essential personnel, 63.7% agreed or highly agreed that it was an issue that had been addressed. For non-essential personnel, 54.9% agreed or highly agreed. In addition, although not all cities are affected by collective bargaining, 43.7% of respondents agreed or highly agreed that a their office had a collective bargaining agreement addressing employment issues in times of disaster.

Compensation is also an important area of workforce management and specifically, payroll is particularly important to address in emergency plans. Because employees often have to address problems in their own lives following a crisis, including payroll issues in plans ensures that while at work, employees do not have to worry about compensation and can focus on the task at hand. Although this particular aspect was a problem for many local governments along the Mississippi Gulf Coast following Hurricane Katrina (Goodman and Mann 2008), over 63 percent of respondents either agreed or strongly agreed that their HR office addressed disaster pay in their plans.

Finally, preparedness efforts also are important to workforce management. Training is necessary for an effective response, and “holding drills, rehearsals, and simulations” is one of the general principles of disaster preparedness (Burling and Hyle 1997, 234). Yet, only 35.3% of respondents agreed or highly agreed that their office had established timeframes for disaster planning activities while 45.6% disagreed or highly disagreed. However, 61.7% of respondents agreed or highly agreed that they help to establish an organizational structure in times of disaster, which is one of the major functions of the federal government’s National Incident Management System (DHS 2008c).
Communication, a vital component of managing change, should occur before, during, and after a disaster (Buford 2006). The key to organizational effectiveness lies in communicating the mission of an organization as well as plans that will address change, and in a public sector organization, good communication can not only positively affect public sector employees, but also the community being served. Thus, information dissemination is a key component of emergency plans. Of the 204 respondents who participated in this study, 57.3% agreed or highly agreed that their HR office has identified methods of information dissemination before, during, and after a disaster. In addition, 67.2% also agreed or highly agreed that their HR office regularly communicates with employees by email during high-risk times such as flu season or hurricane season. However, 45.6% of respondents disagreed or highly disagreed that their HR office regularly communicates with employees by email regarding emergency preparedness.

Although emergency preparedness emails may not be a regular occurrence, 69.6% of respondents agreed or highly agreed that procedures were identified for reporting facility problems that could increase risk or harm during a disaster, such as obstacles in pathways that could hinder an evacuation. However, while 39.3% agreed or highly agreed that their office had procedures regarding the securing of office equipment to lessen risk of physical harm in the event of a disaster, 40.2% disagreed or highly disagreed.

Physical harm also can be decreased by ensuring that employees know evacuation routes is a necessity in emergency plans. However, over 56 percent of respondents disagreed or highly disagreed that their HR office distributes building maps upon hiring that identify evacuation routes, but it is possible that these maps are displayed on exits and in hallways throughout the building.
In a study regarding terrorism and the HRM function, Perry and Mankin (2005) argued, “Minimizing injuries to staff constitutes an obvious priority in disaster planning” (183). The authors stated that organizations should not only create a site evacuation plan, but also should ensure that records and information is secure (Perry and Mankin 2005). Although protecting information on computers and servers may be time-consuming and expensive, governments should make it a high priority (Burkhammer 2006). More than half of respondents, 54.4%, said their office had procedures regarding securing office equipment such as electronic equipment and furniture to protect organizational information and property.

Along with protecting information, communication for post-disaster situations is essential, especially for employees who are relied upon for assisting local government with providing services to the community as quickly as possible. Thus, one of the most important aspects of emergency planning is ensuring that department heads have contact lists with frequently-updated information. Over 60 percent of respondents in this study agreed or highly agreed that their HR department regularly updates and distributes employee contact lists to personnel, and over 46 percent agreed or highly agreed that their office had the equipment needed for post-disaster information dissemination.

In addition to communication needs, other types of technology are necessities for addressing HR issues. As stated previously, another problem faced by HR offices on the Mississippi Gulf Coast after Hurricane Katrina was access to the software programs to run payroll (Goodman and Mann 2008). When asked if their local government HR office has a partner outside of the region that can help with HRM/IT needs during a disaster, 38.7% disagreed or strongly disagreed and 31.4% agreed or highly disagreed. The human resources director for the City of Boulder, Colorado, said, “Payroll fits into HR.
How we would pay our people if systems went down is a big issue.” However, 64.2% agreed or highly agreed that their HR office has critical software and hardware necessary for continuity of operations such as payroll software.

Respondents were also asked about HR functions that are important to post-disaster plans. The third phase of emergency management, response, focuses on addressing immediate needs in the aftermath of a disaster. In this category, 53.9% of respondents agreed or highly agreed that essential resources needed for disaster response had been identified, and 55.4% agreed or highly agreed that essential resources for response workers also had been identified. Although 38.3% disagreed or highly disagreed that their HR office had identified transportation needs and resources, it could be that another department is responsible for this particular function. In comparison to first dependent variable, when asked if the local government had addressed these needs, over 60 percent agreed or highly agreed. In addition, several respondents noted in their surveys that some functions are handled by other departments.

One essential HR function that should be addressed by local governments for the immediate aftermath of disasters is a secondary meeting location. Many local government buildings on the Mississippi Gulf Coast were destroyed by storm surge, and employees could not report to their primary location (Goodman and Mann 2008). This particular function is addressed by NIMS, and Perry and Mankin (2005) add that not only does structural damage heighten the chance of secondary risks such as gas leaks or electrical failures, but also “the increasing age of many government buildings makes the potential especially high that government departments may find themselves without a safe building in which to operate following any disaster” (181). Among the 204
respondents, 52.5% agreed or highly agreed that a primary or secondary meeting location had been identified and included in emergency plans.

When local governments face catastrophes or major disasters, mutual aid agreements and collaboration among all levels of government help to ensure that the necessary supplies and other types of aid can be obtained. For this function, 51.5% of respondents agreed or highly agreed that outside organizations/support services that could assist with mandatory functions in time of disaster had been identified.

The fourth phase of emergency management is recovery, which focuses on long-term projects that help organizations and locales return to normal. Over 54% of respondents agreed or highly agreed that their HR office has both identified essential resources needed for disaster recovery and also established a timeline for nonessential personnel to report to work post-disaster. While these functions would be considered important to short-term recovery, or the transition between response and long-term recovery (GAO 2008), HR departments also must consider employee needs as they return to work, where they could continually face the devastation of disaster. As one coping method, many local governments provide critical incident stress briefing counselors. Of the 204 respondents in this study, over 70% agreed or highly agreed that their HR office has procedures that include access to counselors.

The functions investigated in the survey and furthered explained in this section of the study should be clear indications that HR professionals have significant knowledge to contribute to the planning process. By examining each individual function, HR departments and local governments may better understand how addressing these basic issues in the preparedness stage can save time as well as resources that are often limited in the aftermath of a disaster. However, combining these functions into one variable will
provide an initial understanding of the role of HR departments in local government emergency planning throughout the nation.

**Reliability and Validity**

Before testing the independent and dependent variables, it is important to analyze the reliability and validity of the data. “Reliability evaluates the degree of random error associated with a measure [and] a measure’s reliability increases as the number of questions increases” (O’Sullivan, Rassel, and Berner 2003, 107-108). In other words, reliability ensures that the measure used is dependable and stable, or that the measure will “yield the same results time after time” (O’Sullivan, Rassel, and Berner 2003, 108). In addition, because multiple items are used to create the dependent variables, internal consistency is also important, which “considers all the items are related to the same phenomenon” (O’Sullivan, Rassel, and Berner 2003, 108). In this case, the dependent variables are sub-questions that are human resources activities that are pertinent to emergency planning.

To ensure reliability of the scale-items data, a Reliability Analysis using Cronbach’s Alpha was conducted in SPSS. For the variables that are combined to create HR Functions, the alpha coefficient for the 28 items was .958, which suggests that the variables “have relatively high internal consistency” (UCLA 2011, “Reliability”). In addition, for most social science research, “a reliability coefficient of .70 or higher is considered acceptable” (UCLA 2011, “Reliability”). In addition, the alpha coefficient for HR Disaster Policies was .855, which also is acceptable. In this study, the items that serve as independent variables were basic forced-choice questions that required little interpretation from the respondent. In addition, the variables that make up the
independent variables did not contain any missing values, decreasing the chances of bias from possibly being introduced into the data.

Along with reliability, one must also consider validity. “Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration” (Babbie 2004, 143). To help ensure validity, operational definitions of each of the variables are created. In the case of this study, the questions from the survey helped to establish the definition of each of the variables. In addition, the dependent and independent variables are further explained in the next section. However, the researcher also developed operational definitions of the variables used in this study to help ensure validity. (See Appendix D).

**Results of Hypotheses Testing**

**Hypothesis 1: Local governments that include HR managers or representatives in emergency planning meetings will be more likely to include more HR disaster policies in their emergency plans. (Confirmed)**

The first hypothesis examines the relationship between local governments that include HR managers and representatives in emergency planning meetings and the number of HR disaster policies in local government emergency plans. For this hypothesis, the variable Participation is a 0-1 variable and the range on the HR Disaster Policies variable is 14 through 46 with a mean of 36.99. The mean for those that do not participate was 35.01 and the mean for those who participate was 38.02. One-Way ANOVA indicated a significant relationship between those local governments that include HR representatives in planning meetings and the number of HR Disaster Policies included in the emergency plan (F=7.58, df=1/203, p<.01) (Table 5.7). In this case, for those local governments that include HR representatives in planning
meetings, we also find higher scores on the HR Disaster Policies variable. This result confirms Hypothesis 1.

Table 5.7 Analysis of Variance (ANOVA) HR Participation and HR Disaster Policies

<table>
<thead>
<tr>
<th>Participation</th>
<th>N</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Not Participate</td>
<td>70</td>
<td>35.01</td>
<td>7.58; p=.006</td>
</tr>
<tr>
<td>Participate</td>
<td>134</td>
<td>38.02</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>36.99</td>
<td></td>
</tr>
</tbody>
</table>

Although this hypothesis may seem logical, the finding is actually more revealing of some local governments than one would think. The observation that an extra ‘person’ gained a seat at the table may not be that telling. However, it is the identity of that ‘person’ — an HR representative — that portrays important and meaningful characteristics of a local government’s elected officials and administrators.

First, as stated in Chapter 2, the role of the HR department has transformed over the course of the nation’s history. From a time when managers were chosen based on their political beliefs or fitness of character, to the eras of reform, when HR managers were encouraged to assist with the “efficient and effective management of the workforce” (Truss 2009, 167), HR professionals have evolved into “an integral part of the strategic planning process” (Ban and Gossett 2010, 17). Whether the strategy is one focused on short-term projects that will benefit mayors in upcoming elections, or one focused on long-term planning that city managers believe will be efficient, including those most knowledgeable about the organization’s human capital may prove to be most effective.

Knowledge in areas such as performance assessment, position management, and training and development is beneficial to long-term planning because it directly affects the recruitment and retention of talented employees. By assisting local government with
building a talented workforce, HR managers also are able to assess the KSAs employees bring to the organization. Further, by assisting with the creation of a diverse workforce, HR professionals are able to build an inventory of skills that are available in times of need. A diverse and talented workforce allows for flexibility in task re-orientation, which is necessary to meet the demands of the changing environment that accompanies crises. Adaptability is a necessity when emergencies occur, and local governments that rely on their HR professionals as consultants are able to address needs quickly.

Also, including those who are most knowledgeable about an organization’s human capital is a basic component of strategic human resource management, which is important to the organization as a whole. By acknowledging that HR professionals bring numerous benefits to emergency planning also acknowledges that local governments are strategic in every facet of long-range planning. Thus, recognition of the strategic capabilities of HR professionals by elected officials and administrators, and the reliance on their expertise can directly translate into a more responsive and resilient local government.

However, during the course of this study, numerous HR representatives said that emergency planning is handled entirely by other departments, such as fire and police departments, homeland security, or emergency management. Specifically, a few comments from the survey respondents included:

We have an emergency management coordinator who manages these functions. Director of Human Resources, Flower Mound, Texas

We have an emergency management department that handles disaster situations as well as police and fire departments. Personnel Director, Waltham, Massachusetts

Our police department handles most things related to emergency preparedness. Human Resources Director, Miami Gardens, Florida
Please note that the City has emergency disaster plans but the human resources office does not have a role in preparing them or disseminating them to employees. Personnel Director, New Britain, Connecticut

We have a disaster response coordinator who does all of these. HR does not. Human Resource Manager, Taylorsville, Utah

Although many of the policies may be fully addressed by other departments, HR professionals would be valuable advisers who could draw attention to policies that may be easily overlooked. However, one cannot assume that the local government is not receptive to the inclusion of HR professionals on planning committees nor can one assume that these individuals do not have an interest in emergency planning. As discussed throughout this study, local government departments face many obstacles, including limited time, staff, and resources. Especially during eras of economic downturn, HR departments, like others in local government, often face budget cuts that result in loss of positions. In fact, during each of this study’s three phases of electronic contact, HR professionals nationwide contacted the researcher to explain the delay in response was due to greater workloads as a result of hiring freezes or lay-offs. For example, the HR director a smaller locale in Florida wrote, “I am unable to participate due to an extensive work load and the loss of 2 staff members, who I am unable to replace due to budget constraints.” In addition, an HR director for a California city with a population just over 100,000 also explained, “Unfortunately, we are extremely short staffed at the moment and the only remaining Analyst is unable to assist at this time.”

Again, while some HR departments do not participate in local government emergency planning, it is important to remember that lack of participation does not translate into lack of interest. However, as the results of this hypothesis have demonstrated, those local governments that include HR in the emergency planning
process have addressed more HR disaster policies in their emergency plans, which could ultimately prevent small crises during major disasters. As the HR Director for Elk Grove, California, said:

I reside in Butte County, California, and two years ago we had catastrophic fires that burned over 100 homes to the ground. Our County EOC was activated for 32 straight days. I had all the normal ICS trainings, but all of those trainings do very little to prepare HR professionals to effectively support the emergency response operation. In other words, we made it up on the fly.

Although many HR professionals have the knowledge and experience to address problems when they emerge, that knowledge and experience can be put to better use by addressing some problems before they develop. By including HR departments in emergency planning, when a major crisis occurs, local governments will have more individuals who can focus on the task at hand rather than attending to issues that could have been addressed pre-disaster. After all, participation in preparedness is often the key to a successful response.

**Hypothesis 2: Council-manager forms of government are likely to include more HR disaster policies in their emergency plans. (Rejected)**

The second hypothesis examines the relationship between local governments that have council-manager forms of government and the number of HR disaster policies in the local government emergency plan. For this hypothesis, the variable Council-Manager is coded as a 0-1 variable. One-Way ANOVA did not indicate a significant difference in local governments that have a council-manager and the number of HR Disaster Policies included in the emergency plan compared to that of local governments that do not have a council-manager (F=.000, df=1/203, p>.05) (Table 5.8). In fact, the means are nearly

125
equal, at 36.98 for cities with council-managers, and 36.99 for all others. This result indicates that Hypothesis 2 is rejected.

<table>
<thead>
<tr>
<th>Form of Government</th>
<th>N</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council-Manager</td>
<td>127</td>
<td>36.98</td>
<td>.000; p=.998</td>
</tr>
<tr>
<td>Other Form of Government</td>
<td>77</td>
<td>36.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>36.99</td>
<td></td>
</tr>
</tbody>
</table>

This also is an important finding for local government public administration, particularly for the debate regarding council-manager versus mayor-council forms of government. First, the role of each position in local government administration is characterized differently, with mayors dominating “in the formulation of the mission of municipal governance” and managers having “nearly exclusive control over the management of organizational affairs” (Morgan and Watson 1992, 439). Although other factors along with form of government may impact the inclusion of HR disaster policies in emergency plans, the results of this test show that form of government alone does not have a significant impact on inclusion. While the allocation of funds for emergency preparedness may significantly differ between the two forms of government, agreement on basic activities that are important to the long-term functioning of local government, such as detailed emergency plans, is more easily obtained. The result of this hypothesis, then, also leads to a second observation that is beneficial to public administration and local government.

Because city managers are often characterized as using a decentralized management style (Svara 2008), they often rely on managers’ expertise regarding important policies and procedures in their individual departments. On the other hand,
mayors are often described as using a top-down management style (Svara 2008), and input from department managers may or may not be considered when making final decisions. However, based on the findings of this hypothesis, the management style used in local government does not seem to affect the inclusion of HR policies in emergency plans. Although the actual process that occurs to result in these types of policies and procedures being included in an emergency plan may differ, the result is the same – local governments are addressing some HR policies that, if overlooked or excluded, could be problematic in times of crisis.

**Hypothesis 3: As the size of the city increases, the number of HR disaster policies in local government emergency plans also should increase. (Rejected)**

The third hypothesis examines the relationship between population and the number of HR disaster policies in local government emergency plans. For this hypothesis, the variable population is coded as a 0-1 variable. One-Way ANOVA indicated a small difference for cities with populations of 100,000 or greater and the number of HR disaster policies in their local government emergency plans ($F=.244$, $df=1/203$, $p>.05$)\(^2\) (Table 5.9). In this case, for those cities with populations of 100,000 or greater, we find higher scores on the HR Disaster Policies variable, whose mean is 37.35 compared to 36.80 for cities with populations 50,000 – 99,999. However, the relationship is not significant at the .05 level. This result indicates that Hypothesis 3 is rejected.

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\(^2\) Pearson’s $r$ also was conducted with the variables of this hypothesis. Further analysis produced similar results.
Table 5.9  Analysis of Variance (ANOVA) Population and HR Disaster Policies

<table>
<thead>
<tr>
<th>Population</th>
<th>N</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,000-99,999</td>
<td>136</td>
<td>36.80</td>
<td>.244; p=.622</td>
</tr>
<tr>
<td>100,000-249,999</td>
<td>68</td>
<td>37.35</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>36.99</td>
<td></td>
</tr>
</tbody>
</table>

The result of this hypothesis presents an interesting contradiction for some arguments regarding population and emergency planning. First, some authors have argued that spending on planning projects, including emergency planning, is often higher in cities with greater populations (Cole 1971; Gerber, Cohen, and Stewart 2007). These cities also are often thought to have greater administrative capacities along with greater resources such as money and personnel (Gerber and Robinson 2009). While the resources may be greater, it may be that only some types of emergency planning are the focus of larger cities. Homeland security, for instance, is just one area of emergency planning, and because the risk of terrorism increases with city size (Rahm and Reddick 2011), a focus on that specific type of emergency planning does not necessarily mean that planning for earthquakes and pandemics is of more importance or more likely to occur in cities with greater populations. For instance, French (2011) investigated the level of preparedness regarding pandemic planning in 28 of the largest cities in the United States, and found that only 56 percent had initial plans, with the most prepared city, New York City, scoring only 81 percent based on the Department of Health and Human Services recommended guidelines. In addition, Cantrell (2011) found that although Memphis, Tennessee could be devastated if an earthquake occurred in the New Madrid Seismic Zone, the city has spent very little time and money preparing for its effects. Thus, based
on this hypothesis, population is not an accurate indicator of levels of emergency planning in HR.

However, population may be influential if other factors are considered along with the variable, such as type of disaster and form of government. For instance, Rahm and Reddick (2011) found that emergency preparedness expenditures tend to be greater in those cities where the city manager tends to see greater risk. Thus, population along with form of government may also be affected if considering perception of risk. In cities with council-manager forms of government, spending may be affected by the city manager’s perception of risk, however, that might not be the case in cities with mayors. Although a city’s population may be large, if that city also has a mayor that does perceive the city to be at great risk of disasters, then money may not be allocated to planning projects. However, because the mayor-council form of government exists in a political environment, an increased perception of risk by the mayor does not necessarily mean that the council will agree enough to spend money on emergency preparedness activities. In addition, the management style of city managers and mayors also may be influential. For example, if the city manager or mayor tends to rely on other managers for important issues that affect their departments, the city’s emergency management director may lead the charge for better preparedness plans. If the lead executive creates an environment in which managers’ opinions matter, it seems likely that collaboration between departments would also be supported.

However, based on the data from this survey, although population alone may not impact the number of HR disaster policies in emergency plans, the variable may be influential when considered with other variables. Other factors that should be explored in the future include the allocation of federal grants for specific disaster types, reliance of
cities on the county for emergency preparedness activities, and the FEMA region in which the city is assigned.

**Hypothesis 4:** The number of disasters a local government has faced in the last five years is positively related to the number of HR disaster policies in the emergency plan. (Rejected)

The fourth hypothesis examines the relationship between the number of HR disaster policies in local government emergency plans and the number of disasters a city has faced in the last five years. For this hypothesis, the variable Previous Disasters was coded into five categories, ranging from 0 for 0 disasters to 4 for 4 or more disasters. One-Way ANOVA did not indicate a positive relationship between the number of disasters a city has experienced in the last five years and the number of HR disaster policies in local government emergency plans ($F=.888$, df=4/203, $p>.05$) (Table 5.10). In addition, the relationship is not significant at the .05 level. A Scheffe’s Post Hoc Test, which allows for a comparison of the means of all pairs from the larger ANOVA group, further revealed that the relationship is insignificant, which indicates that Hypothesis 4 is rejected.

Although ANOVA did not indicate a relationship exists between previous disasters and the number of HR disaster policies, the results are still interesting. Simply based on the means, it seems that the largest increase in emergency planning regarding HR occurred when cities experienced only one disaster in the last five years. As was the case in Louisiana, although local governments learned of areas of improvements in the aftermath of Hurricane Betsy, many problems still existed following Hurricane Katrina. However, many of those issues were addressed before Hurricane Gustav arrived in 2008 (Mann 2009).
Table 5.10  Analysis of Variance (ANOVA) Previous Disasters and HR Disaster Policies

<table>
<thead>
<tr>
<th>Number of Disasters in Previous Five Years</th>
<th>N</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>61</td>
<td>36.08</td>
<td>.888; p=.472</td>
</tr>
<tr>
<td>1</td>
<td>70</td>
<td>36.99</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>40</td>
<td>36.78</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>39.68</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>37.86</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>36.99</td>
<td></td>
</tr>
</tbody>
</table>

Results of Post Hoc Test using Scheffe’s Test

<table>
<thead>
<tr>
<th>Number of Disasters in Previous Five Years</th>
<th>Mean Difference</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 v. 1</td>
<td>-.91</td>
<td>.976</td>
</tr>
<tr>
<td>2</td>
<td>-.69</td>
<td>.995</td>
</tr>
<tr>
<td>3</td>
<td>-3.6</td>
<td>.506</td>
</tr>
<tr>
<td>4</td>
<td>-1.78</td>
<td>.959</td>
</tr>
<tr>
<td>1 v. 2</td>
<td>.21</td>
<td>1.00</td>
</tr>
<tr>
<td>3</td>
<td>-2.7</td>
<td>.749</td>
</tr>
<tr>
<td>4</td>
<td>-.87</td>
<td>.997</td>
</tr>
<tr>
<td>2 v. 3</td>
<td>-2.91</td>
<td>.749</td>
</tr>
<tr>
<td>4</td>
<td>-1.08</td>
<td>.995</td>
</tr>
<tr>
<td>3 v. 4</td>
<td>1.83</td>
<td>.976</td>
</tr>
</tbody>
</table>

Again, a significant relationship between these two variables alone may not exist, but other factors may be influential and should be explored. For example, many cities rely on the county government for coordination and management of emergency planning and response. For example, over 50 percent of the respondents for this study stated that their local government follows the county emergency operations plan completely, while approximately 26 percent said their local government somewhat follows the county emergency operations plans. Further exploring those cities that have some or full reliance on the county for emergency planning may also further reveal involvement of departments in planning. For example, if the county emergency operations plan does not highlight or include HR policies, then the city, for its plan, also may not include these policies.
The results of this hypothesis also bring attention to a couple of weaknesses of this study. First, the word ‘disaster’ is open to interpretation, and although defined earlier in this study, a ‘disaster’ in one local government may not be considered a ‘disaster’ in another. In essence, the word disaster is often dependent upon an individual’s perspective, which could have affected this particular hypothesis. In addition, one incident can result in several disasters, such as Hurricane Katrina, which not only resulted in storm surge and flooding, but also prolonged power outages and government conflicts. The hurricane itself was actually the catalyst of several other types of disasters. Thus, one respondent may have responded that four disasters resulted from one incident.

Finally, this particular hypothesis examined only HR disaster policies in emergency plans and the number of disasters in the previous five years. Some disasters may rely completely on first responders, such as emergency services workers or police and fire departments, but does not require involvement from other local government departments, which, in turn, would improvements to response of those departments would not be a factor. Further, the types of disasters that affected the local governments in which HR professionals reported multiple incidents also may provide further insight.

**Hypothesis 5: The level of involvement of human resource professionals in emergency planning is positively related to the number of HR functions included in emergency plans. (Confirmed)**

The fifth hypothesis examines the relationship between the level of involvement of HR representatives in emergency planning and the number of human resource functions in the local government emergency plan. For this hypothesis, the variable Level of Involvement was coded into three categories, very involved, somewhat involved, and not involved. The range on the HR Functions variable is 32 through 140
with an overall mean of 92.74. One-Way ANOVA indicated a significant difference in the level of involvement of HR representatives and the number of HR functions included in the emergency plan ($F=31.93$, $df=2/203$, $p<.001$) (Table 5.11). In this case, for those cities with high levels of HR involvement in emergency planning, scores are also significantly higher on the HR Functions variable, whose mean is 107.06 compared to 94.69 for those somewhat involved and 80.48 for those not involved. A Scheffe’s Post Hoc Test further revealed that each of the three categories of involvement are distinct from one other. This result confirms Hypothesis 5.

The results of this hypothesis confirm that the more involved HR professionals are in the planning process, the more HR functions are addressed pre-disaster rather than post-disaster. This is a significant finding for several reasons. First, the data proves that involvement with local government emergency planning results in greater attention to preparedness. Again, while conducting this study, many HR professionals immediately stated that another department was fully responsible for emergency planning. The assumption cannot be made that HR functions were not addressed in the emergency plans of local governments that did not participate in the research study, but the results of this hypothesis show that participation yields more thorough preparedness in terms of human resource management. However, it should be noted that participation does not necessarily yield a more effective response. For example, one local government may have less HR functions addressed in an emergency plan, but have regular drills and simulations for employees, which, would most likely result in an effective response. A local government that participates in regular disaster drills builds capabilities for response, identifies resources that are lacking, and maintains equipment necessary for response (DHS 2008c). A local government that has a strong, thorough plan that is only
used and updated between emergencies will most likely have a less effective response. In other words, involvement does not necessarily translate into greater preparedness if that preparedness is only on paper. As the National Response Framework suggests, regular exercises in which the plan is practiced will lead to more thorough plans based on lessons learned, resulting in a more efficient and effective response (DHS 2008c).

Table 5.11 Analysis of Variance (ANOVA) Level of Involvement and HR Functions

<table>
<thead>
<tr>
<th>HR Involvement</th>
<th>N</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Involved</td>
<td>75</td>
<td>80.48</td>
<td>31.93; p&lt;.001</td>
</tr>
<tr>
<td>Somewhat Involved</td>
<td>75</td>
<td>94.69</td>
<td></td>
</tr>
<tr>
<td>Very Involved</td>
<td>54</td>
<td>107.06</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>92.74</td>
<td></td>
</tr>
</tbody>
</table>

Results of Post Hoc Test using Scheffe’s Test

<table>
<thead>
<tr>
<th>Level of Involvement</th>
<th>Mean Difference</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Involved v.</td>
<td>-14.21</td>
<td>.000</td>
</tr>
<tr>
<td>Somewhat Involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Involved</td>
<td>-26.58</td>
<td>.000</td>
</tr>
<tr>
<td>Not Involved v.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Involved</td>
<td>-12.36</td>
<td>.000</td>
</tr>
<tr>
<td>Somewhat Involved v.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, regular preparedness exercises also result in greater collaboration and coordination. Social systems can be complex, but when individuals learn to work together toward a goal, the result can be greater understanding of how these systems function and operate. Local governments that include members of all departments in emergency planning are not only addressing major concerns that might arise in times of crisis, but they are also encouraging individuals to understand the contributions of each unit. One of the important elements of planning, as stated by the National Response Framework, is that it brings together members of an organization “with similar and complementary objectives” whose “regular collaboration” helps to reach “individual and collective goals and objectives in an incident” (DHS 2008c, 75). Therefore, bringing
together all departments pre-disaster allows for the opportunity to understand the complex social systems that will be functioning post-disaster. As evidenced by the results of this hypothesis, the involvement of human resource professionals has led to the individual goal of the department – greater attention to HR functions — becoming part of the collective goal, planning for crises.

As Truss (2009) stated, many governments have encouraged HR professionals “to play a more active role in the efficient and effective management of the workforce” (167). Although Choudhury (2007, 265) found that smaller local governments “often lack the fiscal, technical, and professional capacities to adopt administrative innovations,” the result of this hypothesis shows that many governments are working with the resources that are available to them. Allowing HR professionals to be included in emergency planning is the pathway to identifying other capabilities available within the system. Finding new ways to identify and utilize the resources already available is clearly an administrative innovation, one that can be accomplished by local governments of any size.

Increasing the involvement of any department in emergency planning would most likely positively affect the number of related functions addressed in emergency plans. As noted in Table 5.11, the mean for those HR professionals that are somewhat involved is considerably higher (94.69) than those not involved (80.48). Further, the mean for those very involved is even greater (107.46). Thus, involvement produces direct results of the number and types of functions addressed in plans, which include some basic tenets of SHRM, such as forecasting and planning.

However, the most important information revealed from this hypothesis is that many local governments have work ahead of them. Those HR departments that are very
involved must remember that the key to effective planning is continuing their work in planning, ensuring that as the organization changes, capabilities are still available, identified, and addressed. Those HR departments that are somewhat involved should continue to build their inventory of KSAs on the HR functions that are important to emergency planning, which could be enhanced by working with other jurisdictions and various levels of government. Finally, those HR departments that are not currently involved may want to consider how the knowledge of their professionals can better prepare their local governments. The key to increasing the involvement of those HR departments that are not involved in emergency planning is information dissemination. If professional groups such as the Society for Human Resource Management, the American Society for Public Administration, the International City/County Association, and the National League of Cities began to stress the importance of including HR professionals as well as other key departments in local government emergency planning, the result could be more resilient, sustainable cities nationwide.

Hypothesis 6: The number of years HR professionals have worked in HR is positively related to the number of HR functions in local government emergency plans. (Confirmed)

The sixth hypothesis examines the relationship between years working in human resource management and human resource functions in emergency plans. For this hypothesis, the variable Years Working in HR is coded as a 0-1 variable. One-Way ANOVA indicated a small difference in cities with HR managers who have worked in the field for more than 10 years and the number of HR functions in emergency plans.

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3 This hypothesis also was tested using the original categories from the survey, which included Less than 1 year, 1-3 years, 4-10 years, 11-15 years, 16-20 years, and More than 20 years. However, the number of cases for each of the first three categories alone was so few that post-hoc testing could not be conducted. The F-score still indicated a relatively important relationship with a significance level of .065.
(F=3.86, df=1/203, p=.051). (See Table 5.12). In this case, for those cities with individuals who have worked in the field of HR for more than 10 years, we find somewhat higher scores on the HR functions variable, whose mean is 94.05 compared to 86.18, and an overall mean of 92.74. However, the significance level of the F-score from the One-Way ANOVA is just above the specified .05 level at .051. Still, the results indicate enough of a difference to accept hypothesis six.

While most HR professionals enter the field with education and knowledge of important HR functions such as forecasting, planning, recruitment, and communication, as with any career, experience is an asset that is irreplaceable. Most of the individuals that completed this survey reported working in HR for more than 10 years, and over 80% are administrators or directors. At 10 years, many have traveled through the ranks and enhanced their knowledge from on-the-job experience. In addition, as professionals advance to leadership positions, their “span of influence widens, from simply working through others on the people leader level, to managing a large group or organization and communicating on a large, multi-group scale” (Development Dimensions International 2007, 1). According to a survey conducted by Development Dimensions International (2007), as leaders move into senior management positions, they begin to understand that success is based on the work of the group rather than the individual, and this is a characteristic that is prominent among strategic leaders. Thus, with a background based in strategic management and years of experience in facing employee issues, those HR professionals that have worked in the field for more than 10 years should be viewed as assets to local government emergency planning teams.
Table 5.12  Analysis of Variance (ANOVA) Years Working in HRM and HR Functions

<table>
<thead>
<tr>
<th>Years Working in HRM</th>
<th>N</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 years or less</td>
<td>34</td>
<td>86.18</td>
<td>3.86</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>170</td>
<td>94.05</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>92.74</td>
<td></td>
</tr>
</tbody>
</table>

Gaining years of experience also often results in experience in other environments, not only in other organizations, but also geographically. One of the primary reasons for relocation among professionals is the opportunity for promotion. According to Stroh (1999), the results of relocation include greater management experience, better skills in handling interdepartmental conflict, as well as increased knowledge of diverse cultures, all of which are beneficial to local government emergency planning committees. HR professionals that have careers in various geographical areas also bring new perspectives to local governments, particularly in disaster management. Although not all areas of the United States face the same types of disasters, basic emergency planning practices in one locale may easily translate into new approaches for another. For example, Dinnocenzo (2010) noted that after the blizzards of 2010, many organizations were able to assist employees with continuing workflow by allowing employees to telework. Although some areas of the United States are not threatened by blizzards, telework is an HR function that can easily be addressed in emergency plans nationwide.

As with other fields, as HR professionals gain knowledge in their areas of expertise, the value of their experience becomes even more important. The opportunities of facing changing environments, handling conflict management, and learning the skills that lead to quick decision-making are all assets to emergency planning. Although local
governments should include HR directors and other HR specialists with years of experience, it is not to say that those who are new to the field of HR should not be included. In fact, allowing young professionals and interns the opportunity to participate in emergency planning not only may result in new and different perspectives, but it also creates a learning environment for those individuals who are the future of local government strategic planning.

Summary

The results of this study have offered some basic, yet interesting insight into local government emergency planning and the inclusion of HR professionals in the planning process. Although not all of the hypotheses were confirmed, this study has created the foundation for future research in an area that has not been thoroughly explored. By identifying the impacts, or lack thereof, of the basic variables of level of involvement, previous disasters, participation, form of government, experience, and population, studies can now further examine other factors that may positively or negatively affect the inclusion of HR professionals in emergency planning. In the final chapter, some of these factors as well as pathways for future research will be discussed.
CHAPTER VI
CONCLUSIONS

Emergency Management in the United States has witnessed many changes. The involvement of the federal government has transformed from near non-existent to more recently, mandating emergency plans for state and local governments to receive funding. However, one aspect that has not changed is the simple fact that all disasters are local, and it is the citizens of a community and their public officials who are ultimately responsible for response and recovery. Thus, to better manage damage from disasters, preparedness is a necessity, one that often is expensive and time-consuming. When money and personnel are scarce, local governments must rely on the resources that are available, which requires using all of the knowledge, skills, and abilities their employees possess.

The purpose of this study has been to investigate the involvement of HR managers and representatives in local government emergency planning. Although extensive research has focused on public human resource management, this appears to be the first study to examine the extent of involvement of HR departments in emergency planning as well as other local government characteristics that may impact HR’s role in the process. Although 66 percent of the respondents in this study report some involvement in emergency planning, the level of involvement varies. Understanding some of the basic characteristics of HR professionals, their departments, and their local
governments in this research has created a foundation on which future research can be built.

Because local government is ultimately responsible for response to disasters that occur in their communities, it is important to reveal these current practices so that future efforts can focus on improvements. Emergency preparedness, as shown by recent disasters, is an ongoing process in which learning is continuous. However, the current literature on the topic has confirmed three major findings about local government emergency planning.

First, emergency preparedness is an expensive task. Local governments try to meet the expectations set forth by the federal government, whose ultimate goal is to spend less money on recovery projects and more on preparedness, but find that training and equipment are costly. And, when the nation is facing economic crises, local governments are significantly impacted. Thus, decreases in revenue results in less money for planning programs.

Second, the role of an elected official can both positively and negatively affect emergency planning at the local level. Most elected officials and their administrators understand that preparedness programs are necessities, and that by participating in emergency planning, their constituents will benefit if a disaster occurs. However, the “if” can have significant impacts. Politicians often are not remembered for their work in preparedness, but rather for addressing the daily problems faced by their constituents and their work in the aftermath of a disaster. Fortunately, many locales are not regularly affected by disasters so constituents became complacent and expect elected officials to spend money on more pressing problems.
Finally, emergency planning requires the involvement of all departments within local government, as do emergency response and recovery. The knowledge, skills, and abilities of local government employees are vast, which allows them to move beyond their daily position responsibilities to contribute to response and recovery efforts in times of crisis. Although every local government is different, of the 34 percent that stated they did not have involvement with emergency planning, the majority said that some other department was responsible for the city’s emergency management programs. Many of those with this response may not have realized the wealth of knowledge they could bring to planning. Handing over human resource activities during times of crisis to a department that does not have the knowledge and experience of those who handle the activities on a daily basis may lead to additional stress in an already-chaotic aftermath.

When emergencies occur, employees are relied upon to help respond and recover. Thus, including the department that employees depend upon for compensation, benefits administration, and other issues could enhance emergency planning.

Contrary to the findings of the Goodman and Mann (2008) study, it seems that many cities nationwide include important HR issues in their emergency plans. However, as one respondent confirmed, it is an ongoing process that must be a priority of every department in local government, not just human resources. As shown by the results, the 75 cities that are not involved in emergency planning appear to have addressed less HR activities than those who are very involved or somewhat involved, which could present problems in the aftermath of a disaster. As another survey respondent stated, research such as this gives local government HR departments a foundation to build upon.

However, the individuals, particularly managers and administrators that compose public human resource departments bring a wealth of knowledge and experience to public
service. The data from this study indicates that 83 percent of the respondents have worked in HR for more than 10 years and over 50 percent of the 204 respondents have advanced degrees. Thus, the knowledge and strategic capabilities these individuals possess could not only enhance the emergency plans of local governments, but emergency plans at all levels. As evidenced by the number of HR functions that have been addressed by local governments in this study, work in this area has been important for some time. Based on the fact that every state has been the subject of a presidential disaster declaration in the last 20 years, it seems that many of the respondents are likely to have had either direct or indirect experience with the effects of a disaster. By sharing the experiences and lessons learned through responding and recovering from disasters, HR professionals can assist one another with identifying important policies that can be addressed pre-disaster. The contribution of this study, then, is to initiate further discussion about the importance of addressing HR policies and functions for times of crisis and to assist those local governments and their HR departments with building or expanding their plans.

**Limitations of Study and Future Research**

Because very little research has been conducted on human resource management in emergency planning, this study has contributed significantly to both public administration and emergency management literature. By investigating the role of HR managers and representatives in emergency planning as well as the characteristics of local governments that include HR activities in emergency planning, a foundation for further research now exists.
However, limitations of the study should be highlighted. First, of the 603 cities with populations in the study range, only 204 responded. Although the response rate is acceptable for both public administration and emergency management research, the results may have been more revealing if 50 percent or more participated. One explanation may be that the human resource professionals that are involved are more likely to share their knowledge and experiences. Although the study did include HR professionals that currently do not participate with emergency planning, if the sample size were larger, even more details about current involvement, or lack thereof, may have been helpful. However, HR professionals and local governments now have some insight into current practices and can share lessons learned that will allow other local governments the opportunity to implement policies so similar problems do not occur.

Several respondents who began the survey did not continue after the first inquiry concerning participation in emergency planning. Several respondents automatically deferred to another department, stating that emergency planning is not one of their position responsibilities. Unfortunately, the information these respondents could have provided would have provided great contributions to the study, which was explained in each of the four waves of contact. However, several HR departments who were contacted, but could not participate in the study replied with explanations, most of which were due to lack of staff and increased position responsibilities.

A second limitation of the study was the chosen population, which raises questions of generalizability. Cities under 50,000 and cities with populations of 250,000 or greater were not included. The motivation for analyzing local governments in cities with populations of 50,000 – 249,999 was that investigating medium-sized cities could possibly offer a baseline of understanding emergency planning and human resources
management. Future research should focus on the two groups that were not included. Of particular interest may be the cities under 50,000. Although the relationship was not significant, local governments with smaller populations in this study tend to include more human resources issues in emergency planning. It could be that other factors have an impact, such as form of government, geography, and previous experience with disasters, rather than only population. By surveying HR professionals or other public officials local governments with populations less than 50,000, the finding may be that the greater resources of larger local governments do not influence the involvement of human resources representatives in emergency planning.

While most local governments include HR policies in their emergency plans, further work should be conducted. For example, this particular study examined preparedness, but could also be applied to mitigation, response, and recovery. In addition, an interesting case study would be to choose several local governments that have faced a disaster or catastrophe and examine their emergency plans prior to and following the disaster. Human resources could be one area that is closely examined to find if improvements were made in the aftermath of the disaster. Further, interviews with local government officials including the emergency manager and HR director could reveal practical examples and lessons learned.

Also, because local and state governments often base their plans on guidelines established by the federal government, future studies on the federal government’s handling of human resources issue in times of crisis may provide additional insight. If a standard is not in place, creating a baseline may impact government at all levels. However, rather than depending on the federal government for guidance and standards,
local government human resource departments have the opportunity to apply their education and experience by creating their own plans for their own locales.

Finally, the focus of this study was on the perspectives of human resource professionals and their involvement in emergency planning. Additional research that may provide important insight would be to obtain the perspective of emergency management professionals in local governments in the same cities. In bridging the gap between human resources and emergency management, having the perspectives from both sides would allow for better planning. As The American Society for Public Administration President Meredith Newman (2011) explained, “As the ‘face’ of government, first-responders and emergency services personnel carry a unique responsibility. They are the government, up close and personal, on the worst day of a citizen’s life.” And, just as “first responders and emergency services personnel carry a unique responsibility” during times of crisis, so do those that serve in the local government human resource department. In times of crisis, the HR professional becomes the person that the “face of government” turns to when the “worst day” impacts not only the citizens they serve, but also their own families. While local government employees devote their lives to bettering a community, HR managers pledge to protect the protectors, in times of normalcy and especially in times of crisis.
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APPENDIX A

SURVEY
Thank you so much for agreeing to complete the survey that will not only investigate the level of involvement of human resources departments nationwide, but also will assist me with the completion of the final component of my degree.

The purpose of this research is to learn about the level of involvement of human resource managers in emergency planning. Results from this interview will help local government officials, researchers, and scholars better understand human resource management during extraordinary times.

PROCEDURES: Your name has been selected because of your role in local government. If you agree to participate in this research you will be asked to complete this web survey. Only the researcher and her faculty adviser will have access to the survey results.

DURATION: Your time commitment to participate in this interview is about 15-20 minutes or so, which is the time needed to complete the survey.

CONFIDENTIALITY: As you are a public employee or elected official, your responses are on the record. If for any reason you wish to have a pseudonym assigned to you and your answers kept confidential, we will be pleased to do so. Feel free to contact the researcher at sk239@msstate.edu or (251) 648-0248 to make these arrangements. Also, please note that these records will be held by the university and therefore are subject to disclosure if required by law.

RISKS: There are not any foreseeable risks or discomforts to you as a participant in this research.

BENEFITS: Some benefits that may accrue from this research include a better understanding of the level of involvement and the roles of human resource managers in emergency planning. This study in its final form will become available to all who wish to see it. All or parts of the final results from this study will be submitted for publication either as a whole or as articles for scholarly and professional journals.

WITHDRAWAL: Your participation in this research is entirely voluntary and refusal to participate will involve no penalty. If you agree to participate, you may refuse to answer any question on the survey at your discretion. You may withdraw from the study at any time by informing the researcher of your wish to do so either verbally or in writing.

CONCERNS: If you have any further questions in regards to this research, you may
contact Stacey Mann at 251-648-0248 (cell), 662-338-1141 (fax), or e-mail: sk239@msstate.edu. For information regarding your rights as a research subject, please contact the Office of Regulatory Compliance at Mississippi State University at 662-325-3994 (IRB #10-320).

CONSENT: By choosing YES below, you are stating that you have read and understand the material presented thus far, and are willing to assist with my dissertation project.

☐ Yes
☐ No
Questions 2 and 3

<table>
<thead>
<tr>
<th>*In what city/town and state do you currently work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Town:</td>
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<tr>
<td>State:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>*What is your position title?</th>
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</table>
Question 4

* Do you or a member of the human resources department for your city government regularly participate in emergency planning meetings?

- Yes
- No
- Don't know
Questions 4a and 4b

* How long have you or an HR representative been involved with the planning team?
  - Less than 1 year
  - 1 - 5 years
  - 6 - 10 years
  - More than 10 years

* To what extent would you say you or another representative of the human resources department are involved with emergency planning in your city?
  - Very involved
  - Somewhat involved
  - Not involved
  - Don't know
Question 5

* The following list contains specific pre-disaster and post-disaster activities that some cities have incorporated as part of their emergency preparedness plans. Please indicate your level of agreement with the following statements regarding human resource management and emergency planning. Please choose: 1=Strongly agree; 2=Agree; 3=Neither agree nor disagree; 4=Disagree; 5=Strongly disagree.

**My human resources office:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continually assesses internal workforce availability</td>
<td></td>
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<tr>
<td>Has procedures regarding the securing of office equipment to lessen risk of physical harm in the event of a disaster</td>
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<tr>
<td>Has procedures regarding securing office equipment such as electronic equipment and furniture to protect organizational information and property</td>
<td></td>
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<tr>
<td>Has procedures to report facility problems such as physical damage that could increase risk and harm during a disaster</td>
<td></td>
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<tr>
<td>Helps develop the organizational structure in times of disaster</td>
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<tr>
<td>Distributes building maps upon hiring that identify evacuation routes</td>
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<tr>
<td>Has identified essential resources needed for disaster response and where they can be acquired</td>
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<tr>
<td>Has identified essential resources needed for disaster recovery and where they can be acquired</td>
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<tr>
<td>Has identified essential resources for response workers</td>
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<tr>
<td>Has identified transportation needs and resources</td>
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<tr>
<td>Assists in identifying pre- and post-disaster roles of essential personnel (beyond regular duties)</td>
<td></td>
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<tr>
<td>Assists in identifying pre- and post-disaster roles of non-essential personnel</td>
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</tbody>
</table>
Has identified outside organizations/support services that could assist with mandatory important functions in times of disaster.
The following list contains specific pre-disaster and post-disaster activities that some cities have incorporated as part of their emergency preparedness plans. Please indicate your level of agreement with the following statements regarding human resource management and emergency planning. Please choose: 1=Strongly agree; 2=Agree; 3=Neither agree nor disagree; 4=Disagree; 5=Strongly disagree.

**My human resources office:**

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established time frames for disaster planning activities</td>
<td></td>
<td></td>
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<tr>
<td>Regularly communicates with employees by email regarding emergency preparedness</td>
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<tr>
<td>Has critical software and hardware necessary for continuity of operations such as payroll software</td>
<td></td>
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<tr>
<td>Conducts regular assessments of employee knowledge, skills, and abilities (KSAs) useful for disaster response and recovery</td>
<td></td>
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<tr>
<td>Has procedures that include critical incident stress debriefing counselors</td>
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<tr>
<td>Has a partner outside the region that can help with HRM/IT needs during a disaster</td>
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<tr>
<td>Analyzes potential compensation issues that may arise post-disaster such as overtime and disaster pay</td>
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<tr>
<td>Regularly forecasts internal and external supply of employees</td>
<td></td>
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<tr>
<td>Regularly updates and distributes employee contact lists to key personnel</td>
<td></td>
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<tr>
<td>Has collective bargaining agreements that address employment issues during emergencies or disasters</td>
<td></td>
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<tr>
<td>Regularly communicates with employees by email during regionally high-risk times such as flu season or hurricane season</td>
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<tr>
<td>Has identified primary or secondary meeting</td>
<td></td>
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<tr>
<td>Requirement</td>
<td>Score 1</td>
<td>Score 2</td>
<td>Score 3</td>
<td>Score 4</td>
<td>Score 5</td>
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<tr>
<td>----------------------------------------------------------------------------</td>
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<tr>
<td>Locations for employees in the aftermath of a disaster</td>
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<tr>
<td>Has a timeline for nonessential personnel to report to work post-disaster</td>
<td></td>
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<tr>
<td>Has identified methods of information dissemination before, during, and after a disaster</td>
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<tr>
<td>Has the equipment needed for post-disaster information dissemination</td>
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</table>
Question 7

Are there any other human resources knowledge, skills, abilities, or issues you believe are important but were not addressed in the two previous questions?
Questions 8 and 9

* Which type of employee system is used in your city?
  - Civil Service System
  - Employment At-Will System
  - Both
  - None of the above

* When a new employee is hired with your city, is he/she required to attend a new employee orientation?
  - Yes
  - No
  - Don't know
Question 9a

* Does the orientation include information on the city's emergency preparedness and response plans?
  - Yes
  - No
  - Don't know
Below are items used to determine the degree of implementation by your city for various policies regarding common HR practices during times of disaster. Please indicate the level of your agreement or disagreement with the following items: 1=Strongly agree; 2=agree; 3=Neither agree nor disagree; 4=Disagree; 5=Strongly disagree.

### My local government...

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has policies that address hiring practices during states of emergency</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Allows for the immediate hiring of temporary workers</td>
<td>☐</td>
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<tr>
<td>Adjusts pay to account for labor shortages during times of disaster</td>
<td>☐</td>
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<tr>
<td>Has a pay differential for employees who work during times of declared disasters</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Has policies that address employee furloughs during states of emergency</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Has separate policies that address overtime/comp pay during states of emergency</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Has policies that address employee retention during states of emergency</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Has streamlined policies for disciplining and terminating employees during states of emergency</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Mandates counseling for employees during states of emergency</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>Cross-trains employees in preparation for emergencies</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has mutual aid agreements with other cities, counties, states</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>Has identified transportation needs and resources</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
</tbody>
</table>
Question 11

Are there any HR practices implemented by your city that are not mentioned in the previous question?
Question 12

What is the likelihood that your city will be affected by each of the following disasters? Please rank the following with: 1=Highly likely; 2=Likely; 3=Neither likely nor unlikely; 4=Unlikely; 5=Very unlikely.

<table>
<thead>
<tr>
<th></th>
<th>Highly likely</th>
<th>Likely</th>
<th>Neither likely nor unlikely</th>
<th>Unlikely</th>
<th>Highly unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthquake</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Flood</td>
<td></td>
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<tr>
<td>Hazardous materials</td>
<td></td>
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<tr>
<td>spill/incident</td>
<td></td>
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<tr>
<td>Hurricane</td>
<td></td>
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</tr>
<tr>
<td>Radiological hazard</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Terrorist incident</td>
<td></td>
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<tr>
<td>Tornado</td>
<td></td>
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<tr>
<td>Severe weather</td>
<td></td>
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<tr>
<td>Tsunami</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Wildfire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volcanic eruption</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Avalanche</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mudslide</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Storm surge</td>
<td></td>
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</tr>
<tr>
<td>Railroad incident</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mine explosion</td>
<td></td>
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<tr>
<td>Pandemic outbreak</td>
<td></td>
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<tr>
<td>Bioterrorist threat</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Dam failure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Prolonged power</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>interruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drought</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If your area is at risk for other types of disasters, please list those below.
Question 13

* In the last five years, how many disasters has your city faced?
   - 0
   - 1
   - 2
   - 3
   - 4 or more
   - Don't know
Question 13a

* What was the nature of the disaster(s)? (Choose all that apply.)

- Avalanche
- Drought
- Severe Weather
- Earthquake
- Mine explosion
- Bioterrorist threat
- Wildfire
- Volcanic eruption
- Tornado
- Flood
- Pandemic outbreak
- Prolonged power failure
- Hurricane
- Mudslide
- Terrorist incident
- Hazardous materials spill/incident
- Dam failure
- Radiological hazard
- Other

If "Other" was selected, please explain.

[Text box for explanation]
Question 14

* On a scale of 1-10 with 1 being not at all prepared and 10 being very prepared, how prepared do you believe your city is if a disaster hit your area right now?
Questions 15 and 16

What additional advice and insight could you as a human resources professional offer about human resource management in disaster planning and response?

To what extent would you say your city follows the county emergency operations plan?

- Follows the county emergency operations plan entirely
- Somewhat follows the county emergency operations plan
- Does not follow the county emergency operations plan
- Don’t know if the city follows the county emergency operations plan

If the emergency operations plan is based on another model, please explain below.
Questions 17, 18, and 19

How long have you been employed in your current position?
- Less than 1 year
- 1-3 years
- 4-10 years
- 11-15 years
- 16-20 years
- More than 20 years

How many years have you worked in the field of human resource management?
- Less than 1 year
- 1-3 years
- 4-10 years
- 11-15 years
- 16-20 years
- More than 20 years

What is the form of government in your city?
- Council-Manager
- Council-Mayor
- Commission
- Town Meeting
- Other
Question 19a

How would you describe the mayor?

- Strong Mayor
- Weak Mayor
- Don't Know/Not Applicable
If "Other" was selected, please explain.
Questions 20, 21, 22, and 23

What is your gender?
- Male
- Female

What is your age range?
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or older

What is your highest level of educational attainment?
- Less than a high school diploma
- High school diploma
- 2-year degree
- 4-year degree
- Master's degree
- Law degree
- Doctorate degree (e.g., Ph.D., Ed.D., M.D., etc.)

What is your race?
- Caucasian/White
- Hispanic
- Native American
- African American/Black
- Asian
- Other
Thank you for completing the survey. If you have any additional comments, please feel free to email Stacey Mann at sk238@msstate.edu. Again, I really appreciate your willingness to help me with my dissertation project, and I welcome any comments or additional information you can provide. Also, if you feel your city has a unique perspective and would be interested in participating in a case study, please contact me. Thank you so much!

Would you be willing to answer questions at a later date?

- Yes
- No
- Maybe
Thank you!
APPENDIX B

LETTERS OF CONTACT
Letter of Introduction

Human Resources Director
Street Address
City, State, Zip Code

Dear (Human Resources Director):

My name is Stacey Mann and I am a doctoral candidate in Public Policy & Administration at Mississippi State University. For the final component of my degree, I am tasked with writing a dissertation on a topic that I believe will make an impact on public administration. For me, the topic was an easy choice.

As a native of the Gulf Coast, I grew up facing the annual hurricane season. I always prayed that if a hurricane did develop, it would never make landfall. Unfortunately, many do, and one that recently affected my family was Hurricane Katrina. In the aftermath of the storm, I watched as local governments struggled to rebuild. As a student interested in public human resource management, my major professor and I worked on a project that investigated human resource management issues before, during, and after the storm. We interviewed local government officials about their experience with HR issues that in normal times are often considered routine and mundane. However, we saw very quickly that these same issues were no longer routine, and in some circumstances, became great challenges.

After conducting that study, it became my goal to help cities across the nation create plans for managing employees during times of crisis. My doctoral dissertation is an attempt to do just that. I am writing to ask you for your help in investigating the involvement of human resource managers in emergency planning. Over the past several weeks, I have compiled contact information for over 600 public human resource management officials. It was quite a task, but already, I have enjoyed talking with many of you. In the next few days, I will email you a link to the survey that inquires about your level of involvement in disaster planning with your city. I also have included a copy of the survey with this letter along with my fax number if you would prefer to complete a paper copy. Even if you have not been involved with emergency planning, your knowledge of human resources issues will be helpful.

Our nation is diverse both culturally and geographically, and your perspective is one that can help cities across the nation better prepare for disasters. The survey will take about 15-20 minutes, and will ask questions about disasters that have affected your area as well as human resource management issues that may be important during times of crisis. I absolutely value your experience and insight, and I welcome any comments, advice, or firsthand knowledge you can offer.

I want to thank you in advance for your participation and for your assistance in helping me complete the final component of my doctorate. Please feel free to contact me at anytime regarding this study at sk239@msstate.edu or (251) 648-0248. I look forward to learning more about your experience and advice in better preparing local governments for times of crisis.

Sincerely,

Stacey Mann, Ph.D. Candidate
First Email Contact

Greetings! A few days ago, you hopefully received a letter from me requesting your participation in a survey that focuses on the level of involvement of human resources professionals in emergency planning. If you did not receive the letter, I have attached it to this email for your review.

As I stated in the letter, I believe that human resources professionals have extensive knowledge of employee management that would have a positive impact on planning for times of crisis. I am particularly interested in the State of Arkansas because of the various types of risks the state faces. Certainly in your position with local government, you have learned a great deal that could contribute to effective and efficient planning and response programs if a disaster affects your area. My goal for my doctoral dissertation is to give human resources managers a voice in the planning process.

Again, I really appreciate your participation in this study and for assisting me with the final component of my degree. I believe the most important component of a well-functioning city government is its workforce, and your role in managing that workforce is important not only on a daily basis, but during emergencies.

Please feel free to contact me at anytime regarding this study at sk239@msstate.edu or (251) 648-0248. I look forward to learning more about your experience and advice in better preparing local governments in times of crisis. If you would please complete the survey by Feb. 8, I would greatly appreciate it. In addition, for information regarding your rights as a research subject, please contact the Office of Regulatory Compliance at Mississippi State University at 662-325-3994 (IRB# 10-320).

Please visit: http://www.surveymonkey.com/s/hrem  Password: hrsurvey

Thank you!

Stacey Mann
Ph.D. Candidate, Department of Political Science and Public Administration
Mississippi State University
(251) 648-0248
sk239@msstate.edu
Second Email Contact

Greetings, (Respondent)!

Recently, I contacted you requesting your participation in a survey that focuses on the role of human resources managers in emergency planning. If you have not yet completed the survey, I would really appreciate if you could try to complete it by Tuesday, Feb. 22. I understand that your time is valuable, and I appreciate you taking the time to read my letter and emails. Your participation is completely voluntary, but I hope to help cities across the nation in better preparing for disasters. Again, the link to the survey is http://www.surveymonkey.com/s/hrem and the password is: hrsurvey.

Thank you so much for your assistance! Also, if you would rather complete the printed version, please let me know and I will be happy to email it to you. I appreciate your help. If you have any questions or need more information, please feel free to contact me at sk239@msstate.edu or (251) 648-0248. In addition, for information regarding your rights as a research subject, please contact the Office of Regulatory Compliance at Mississippi State University at 662-325-5220 (IRB #10-320).

Sincerely,

Stacey Mann  
Ph.D. Candidate  
Department of Political Science & Public Administration  
Mississippi State University  
(251) 648-0248  
sk239@msstate.edu
Third Email Contact

Good afternoon:

Recently, I contacted you requesting your participation in a survey that focuses on the role of human resources departments in emergency planning. Your input regarding the topic of human resources and emergency planning is invaluable, not only to me, but also to cities across the nation who want to better plan and manage their employees for times of crisis.

If you would be willing to help, please visit http://www.surveymonkey.com/s/hrem to complete the survey and help cities across the nation become better prepared for times of crisis. The password is hrsurvey. The survey will be available through Tuesday, March 8.

Thank you so much for your assistance and thank you all for your patience with the series of emails I've sent regarding the project. If you have any questions or need more information, please feel free to contact me at sk239@msstate.edu or (251) 648-0248. In addition, for information regarding your rights as a research subject, please contact the Office of Regulatory Compliance at Mississippi State University at 662-325-5220 (IRB#10-320). If you have already completed the survey and are interested in the results, I will be happy to send you a summary upon completion.

Thank you again!

Stacey Mann
Ph.D. Candidate
Department of Political Science & Public Administration
Mississippi State University
APPENDIX C

EXPLANATIONS OF MISSING VALUES
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description of Policy/Question</th>
<th># of Missing</th>
<th>Values</th>
<th>Explanation of Data Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Employment</td>
<td>How long have you been employed in your current position?</td>
<td>2</td>
<td></td>
<td>After further research, the exact dates of employment for the two respondents could not be identified. Thus, the mode for this variable, 3, was used.</td>
</tr>
<tr>
<td>Years Working in HRM</td>
<td>How many years have you worked in the field of human resource management?</td>
<td>2</td>
<td></td>
<td>After further research, the number of years one respondent has been working in HRM could not be identified. Thus, the mode for this variable, 6, was used. For the second missing value, the respondent was coded as 0 because he serves as a public information officer and does not work in HRM.</td>
</tr>
<tr>
<td>Level of Involvement</td>
<td>To what extent would you say you or another representative of the human resources department are involved with emergency planning in your city?</td>
<td>69</td>
<td></td>
<td>Not every respondent had access to this question. Question 4 asked respondents “Do you or a member of the human resources department for your city government regularly participate in emergency planning meetings?” and could choose from Yes, No, or Don’t Know. For Question 4, 69 respondents chose No or Don’t Know, which then directed them to Question 4a in the electronic survey.</td>
</tr>
<tr>
<td>Gender</td>
<td>What is your gender?</td>
<td>1</td>
<td></td>
<td>Because the city and title of the respondent was known, the missing value was replaced and coded as 0.</td>
</tr>
<tr>
<td>Age</td>
<td>What is your age range?</td>
<td>4</td>
<td></td>
<td>The mode for the variable age was 4. Although the researcher had the names of each of the four respondents, but their specific ages were not found. Thus, the missing values were replaced with the mode for the variable as a whole.</td>
</tr>
<tr>
<td>Education</td>
<td>What is your highest level of educational attainment?</td>
<td>2</td>
<td></td>
<td>The mode for the variable was 5. After further research, the education of one respondent was found, which was a master’s degree, or the mode of 5. The education of the second respondent could not be found so the missing value was replaced with the mode.</td>
</tr>
<tr>
<td>Race</td>
<td>What is your race?</td>
<td>3</td>
<td></td>
<td>The mode for this variable was 6. After further research, information on the two respondents was found and race was identified. The third missing value, however, was not identified so the mode, 6, was used for the missing value.</td>
</tr>
<tr>
<td>Form of Government</td>
<td>What is the form of government in your city?</td>
<td>1</td>
<td></td>
<td>Because the city of the missing value was known, the form of government was identified.</td>
</tr>
<tr>
<td>Previous Disasters</td>
<td>In the last five years, how many disasters has your city faced?</td>
<td>27</td>
<td></td>
<td>Because the cities that had missing values were known, the number of disasters for each were identified using FEMA’s Federal Disaster Declaration website.</td>
</tr>
</tbody>
</table>

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APPENDIX D

OPERATIONAL DEFINITIONS OF VARIABLES
<table>
<thead>
<tr>
<th>Variable</th>
<th>Question</th>
<th>Question/Definition</th>
<th>Answer Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR Participation</td>
<td>4</td>
<td>Do you or a member of the human resources department for your city government regularly participate in emergency planning meetings?</td>
<td>0 = No and Don’t know 1 = Yes</td>
</tr>
<tr>
<td>Time Participating(a)</td>
<td>4a</td>
<td>How long have you or an HR representative been involved with the planning team?</td>
<td>0 = Less than 1 year 1 = 1 – 5 years 2 = 6 – 10 years 3 = More than 10 years</td>
</tr>
<tr>
<td>Time Participating(b)</td>
<td>4a</td>
<td>How long have you or an HR representative been involved with the planning team?</td>
<td>0 = Less than 1 year, 1-5 years, 6-10 years 1 = More than 10 years</td>
</tr>
<tr>
<td>Level of Involvement</td>
<td>4b</td>
<td>To what extent would you say you or another representative of the human resources department are involved with emergency planning in your city?</td>
<td>0 = Not involved and Somewhat involved 1 = Very involved</td>
</tr>
<tr>
<td>HR Functions</td>
<td>5 &amp; 6</td>
<td>The following list contains specific pre-disaster and post-disaster activities that some cities have incorporated as part of their emergency preparedness plans. Please indicate your level of agreement with the following statements regarding human resource management and emergency planning. Please choose: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree. (Combined following 28 variables).</td>
<td>1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly agree</td>
</tr>
<tr>
<td>Availability</td>
<td>5</td>
<td>My human resources office continually assesses internal workforce availability.</td>
<td>1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly agree</td>
</tr>
<tr>
<td>Secure Equipment</td>
<td>5</td>
<td>My human resources office has procedures regarding the securing of office equipment to lessen risk of physical harm in the event of a disaster.</td>
<td>1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly agree</td>
</tr>
<tr>
<td>Protect Info</td>
<td>5</td>
<td>My human resources office has procedures regarding securing office equipment such as electronic equipment and furniture to protect organizational information and property.</td>
<td>1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly agree</td>
</tr>
<tr>
<td>Facility Problems</td>
<td>5</td>
<td>My human resources office has procedures to report facility problems such as physical damage that could increase risk and harm during a disaster.</td>
<td>1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly agree</td>
</tr>
<tr>
<td>Category</td>
<td>Rating</td>
<td>Description</td>
<td>Scale</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Org Structure</td>
<td>5</td>
<td>My human resources office helps develop the organizational structure in times of disaster.</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Building Maps</td>
<td>5</td>
<td>My human resources office distributes building maps upon hiring that identify evacuation routes.</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Response Resources</td>
<td>5</td>
<td>My human resources office has identified essential resources needed for disaster response and where they can be acquired.</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Recovery Resources</td>
<td>5</td>
<td>My human resources office has identified essential resources needed for disaster recovery and where they can be acquired.</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Worker Resources</td>
<td>5</td>
<td>My human resources office has identified essential resources for response workers.</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Transport Needs</td>
<td>5</td>
<td>My human resources office has identified transportation needs and resources.</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Essential Roles</td>
<td>5</td>
<td>My human resources office assists in identifying pre- and post-disaster roles of essential personnel (beyond regular duties).</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Nonessential Roles</td>
<td>5</td>
<td>My human resources office assists in identifying pre- and post-disaster roles of non-essential personnel (beyond regular duties).</td>
<td>1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree</td>
</tr>
<tr>
<td>Component</td>
<td>Score</td>
<td>Description</td>
<td>Scale</td>
</tr>
<tr>
<td>--------------------</td>
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<td>--------------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Support</td>
<td>5</td>
<td>My human resources office has identified outside organizations/support services that could assist with mandatory important functions in times of disaster.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 = Neither agree nor disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 = Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>Planning Times</td>
<td>6</td>
<td>My human resources office established timeframes for disaster planning activities.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 = Neither agree nor disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 = Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>Email</td>
<td>6</td>
<td>My human resources office regularly communicates with employees by email regarding emergency preparedness.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 = Neither agree nor disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 = Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>Software</td>
<td>6</td>
<td>My human resources office has critical software and hardware necessary for continuity of operations such as payroll software.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 = Neither agree nor disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 = Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>KSAs</td>
<td>6</td>
<td>My human resources office conducts regular assessments of employee knowledge, skills, and abilities (KSAs) useful for disaster response and recovery.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
</tr>
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<td>3 = Neither agree nor disagree</td>
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<td>4 = Agree</td>
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<td></td>
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<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>CIS Counselors</td>
<td>6</td>
<td>My human resources office has procedures that include critical incident stress briefing counselors.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
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<tr>
<td></td>
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<td>3 = Neither agree nor disagree</td>
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<td>4 = Agree</td>
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<td></td>
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<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>HRMIT</td>
<td>6</td>
<td>My human resources office has a partner outside of the region that can help with HRM/IT needs during a disaster.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
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<td>3 = Neither agree nor disagree</td>
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<td>4 = Agree</td>
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<td></td>
<td></td>
<td></td>
<td>5 = Strongly agree</td>
</tr>
<tr>
<td>Disaster Pay</td>
<td>6</td>
<td>My human resources office analyzes potential compensation issues that may arise post-disaster such as overtime and disaster pay.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Disagree</td>
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<tr>
<td></td>
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<td></td>
<td>3 = Neither agree nor disagree</td>
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<td></td>
<td></td>
<td></td>
<td>4 = Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 = Strongly agree</td>
</tr>
</tbody>
</table>
| Worker Supply       | 6 | My human resources office regularly forecasts internal and external supply of employees. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
|---------------------|---|--------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Contact Lists       | 6 | My human resources office regularly updates and distributes employee contact lists to key personnel. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Bargaining          | 6 | My human resources office has collective bargaining agreement that address employment issues during emergencies or disasters. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Season Email        | 6 | My human resources office regularly communicates with employees by email during regionally high-risk times such as flu season or hurricane season. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Locations           | 6 | My human resources office has identified primary or secondary meeting locations for employees in the aftermath of a disaster. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Nonessential Schedule | 6 | My human resources office has a timeline for nonessential personnel to report to work post-disaster. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Dissemination       | 6 | My human resources office has identified methods of information dissemination before, during, and after a disaster. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Info Equipment      | 6 | My human resources office has the equipment needed for post-disaster information dissemination. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| HR Disaster Policies | 10 | Below are items used to determine the degree of implementation by your city for various policies regarding common HR practices during times of disaster. Please indicate the level of your agreement or disagreement with the following items: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree. (Combined following 12 variables). | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
|---|---|---|---|
| Hiring Practices | 10 | My local government has policies that address hiring practices during states of emergency. For this particular variable, one value was missing. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Temp Workers | 10 | My local government allows for the immediate hiring of temporary workers. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Shortage Pay | 10 | My local government adjusts pay to account for labor shortages during times of disaster. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Pay Differential | 10 | My local government has a pay differential for employees who work during times of declared disasters. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Furloughs | 10 | My local government has policies that address employee furloughs during states of emergency. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Comp Pay | 10 | My local government has separate policies that address overtime/comp pay during states of emergency. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Retention | 10 | My local government has policies that address employee retention during states of emergency. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Discipline       | 10 | My local government has streamlined policies for disciplining and terminating employees during states of emergency. | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
|------------------|----|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Counseling       | 10 | My local government mandates counseling for employees during states of emergency.                          | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Cross Train      | 10 | My local government cross-trains employees in preparation for emergencies.                                  | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Aid              | 10 | My local government has mutual aid agreements with other cities, counties, states.                         | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Transportation   | 10 | My local government has identified transportation needs and resources.                                     | 1 = Strongly disagree  
2 = Disagree  
3 = Neither agree nor disagree  
4 = Agree  
5 = Strongly agree |
| Likely Disasters | 12 | What is the likelihood that your city will be affected by each of the following disasters? Please rank the following with 1 = Highly likely; 2 = Likely; 3 = Neither likely nor unlikely; 4 = Unlikely; 5 = Highly unlikely. | 1 = Highly unlikely  
2 = Unlikely  
3 = Neither likely nor unlikely  
4 = Likely  
5 = Highly Likely |
| Earthquake       | 12 | “A sudden rapid shaking of the earth’s crust that is caused by the breaking and shifting of rock beneath the earth’s surface.” (Haddow, Bullock, and Coppola 2010, 32) | 1 = Highly unlikely  
2 = Unlikely  
3 = Neither likely nor unlikely  
4 = Likely  
5 = Highly Likely |
| Flood            | 12 | “An overabundance of water that engulfs normally dry land and property, which may be caused by a number of factors, including heavy rainfall, melting snow, an obstruction of a natural waterway, and other generative factors.” (Haddow, Bullock, and Coppola 2010, 378) | 1 = Highly unlikely  
2 = Unlikely  
3 = Neither likely nor unlikely  
4 = Likely  
5 = Highly Likely |
<table>
<thead>
<tr>
<th>Hazardous Materials Spill/Incident</th>
<th>12</th>
<th>An incident involving “substances that can pose a threat to the environment or health if accidentally or intentionally released.” (Haddow, Bullock, and Coppola 2010, 378)</th>
<th>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurricane</td>
<td>12</td>
<td>“A tropical storm with winds that have reached a sustained speed of 74 miles per hour.” (Haddow, Bullock, and Coppola 2010, 379)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td>Radiological Hazard</td>
<td>12</td>
<td>A “source of danger” that could “cause harm by exposing victims to the damaging energy emitted by unstable radioactive materials.” (Haddow, Bullock, and Coppola 2010, 378, 57)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td>Terrorist Incident</td>
<td>12</td>
<td>An act which uses “force or violence against persons or property for purposes of intimidation, coercion, or spreading faith in order to attain political, religious, or ideological goals.” (Haddow, Bullock, and Coppola 2010, 380)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td>Tornado</td>
<td>12</td>
<td>“A rapidly rotating vortex or funnel of air extending groundward from a cumulonimbus cloud.” (Haddow, Bullock, and Coppola 2010, 380)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td>Severe Weather</td>
<td>12</td>
<td>Could include a severe winter storm (“occurs when extremely cold atmospheric conditions coincide with high airborne moisture content, resulting in rapid and heavy participation of snow and/or ice”) or a thunderstorm (a meteorological event generated by atmospheric imbalance and turbulence caused by unstable warm air that rises rapidly, heavy moisture, and upward lift of air currents that can bring a combination of heavy rains, strong winds, hail, lightning, and tornadoes”) (Haddow, Bullock, and Coppola 2010, 380)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td>Tsunami</td>
<td>12</td>
<td>“A wave or series of waves generated by a mass displacement of sea or lake water.” (Haddow, Bullock, and Coppola 2010, 380)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td>Event</td>
<td>Description</td>
<td>Likelihood Scale</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>Wildfire</td>
<td>“A large, often out-of-control burning of leaves, fallen wood, detritus, and other debris in inhabited or sparsely inhabited forest or grasslands.” (Haddow, Bullock, and Coppola 2010, 380)</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Volcano</td>
<td>“A break in the earth’s crust from which molten rock exits from below the surface.” (Haddow, Bullock, and Coppola 2010, 380)</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Avalanche</td>
<td>“A mass of ice or snow that moves downhill at a high velocity.” (Haddow, Bullock, and Coppola 2010, 377)</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Mudslide</td>
<td>“A water-saturated river of rock, earth, and other debris that is drawn downward by forces of gravity.”</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Storm Surge</td>
<td>“A mass of water that is pushed toward the shore by the force of an oncoming storm or other force.” (Haddow, Bullock, and Coppola 2010, 377)</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Railroad Incident</td>
<td>An accident involving a railway train that endangers either people or the environment in which it operates.</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Mine Explosion</td>
<td>The definition of “accident” as it pertains to a fire or explosion event can involve one or more of the following: (1) a death of an individual at a mine; (2) an injury to an individual at a mine which has reasonable potential to cause death; (3) an unplanned ignition or explosion of gas or dust; (4) an unplanned mine fire not extinguished within 30 minutes of discovery. (Verakis 2006, 1).</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Pandemic</td>
<td>An outbreak of a contagious disease that spreads beyond a specific area to a region, nation, or worldwide (French and Raymond 2009, 824).</td>
<td>1 = Highly unlikely, 2 = Unlikely, 3 = Neither likely nor unlikely, 4 = Likely, 5 = Highly Likely</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Scale</td>
<td>Description</td>
<td>Likelihood</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>Bioterrorist Threat</strong></td>
<td>12</td>
<td>“A bioterrorism attack is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants.” (CDC 2011, “Bioterrorism Overview”)</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td><strong>Dam Failure</strong></td>
<td>12</td>
<td>The release of large quantities of water as a result of a wall that is impacted, cracked, or destroyed, resulting in the large amounts of water spreading downstream. (Haddow, Bullock, Coppola 2010).</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td><strong>Prolonged Power Interruption</strong></td>
<td>12</td>
<td>The loss of electric power for more than 24 hours.</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td><strong>Drought</strong></td>
<td>12</td>
<td>“A prolonged shortage of available water, primarily due to insufficient rain and other precipitation or because exceptionally high temperatures and low humidity causing a drying of agriculture and a loss of stored water resources.” (Haddow, Bullock, Coppola 2010, 48).</td>
<td>1 = Highly unlikely 2 = Unlikely 3 = Neither likely nor unlikely 4 = Likely 5 = Highly Likely</td>
</tr>
<tr>
<td><strong>Perceived Threat</strong></td>
<td>12</td>
<td>What is the likelihood that your city will be affected by each of the following disasters? Please rank the following with Highly likely, Likely, Neither likely nor unlikely, Unlikely, and Highly unlikely.</td>
<td>0 = All Others 1 = Highly likely and likely for a Bioterrorist threat and Pandemic Outbreak</td>
</tr>
<tr>
<td><strong>Disaster in Previous Five Years</strong></td>
<td>13</td>
<td>In the last five years, how many disasters has your city faced? (Choose all that apply). Could choose from a list of 18 disaster types and Other.</td>
<td>0 = Cities that have not experienced a disaster in the past five years. 1 = Cities that have experienced a disaster in the last five years.</td>
</tr>
<tr>
<td><strong>Years Working in HRM</strong></td>
<td>18</td>
<td>How many years have you worked in the field of human resource management? Less than 1 year, 1-3 years, 4-10 years, 11-15 years, 16-20 years, and more than 20 years.</td>
<td>0 = Does not work in HR, Less than 1 year, 1-3 years, 4-10 years 1 = 11-15 years, 16-20 years, and more than 20 years</td>
</tr>
<tr>
<td><strong>Council-Manager</strong></td>
<td>19</td>
<td>What is the form of government in your city? Council-manager, Council-mayor, Commission, Town meeting, and Other.</td>
<td>0 = All others 1 = Council-Manager</td>
</tr>
</tbody>
</table>