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Building Sustainable Cities in a Post-Katrina Nation: HR's Role in Mitigation and Planning

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Abstract

In the aftermath of Hurricane Katrina, governments at all levels have placed a greater emphasis on emergency planning. The federal government has increased mitigation funding, but the process can be costly. Federal funds may not cover the price of mitigation efforts so local and state governments must find new methods of creating sustainable cities. In the aftermath of Hurricane Katrina, it became apparent that in many locales, one major department was overlooked when emergency planning teams were created—human resources. In the days following the storm, local governments faced difficulties in contacting their employees and paying those who worked through the catastrophe. Although human resource management is an everyday occurrence in local government, in times of crisis, simple tasks may become difficult. By understanding six major vulnerabilities that local governments face, human resources departments can assist local governments not only in effective mitigation but also in creating a sustainable city.

Keywords

mitigation, human resource management, Hurricane Katrina, sustainability, emergency management

In 2001 and 2005, two major U.S. cities faced two very different disasters. While one was an act of terrorism and the second an act of nature, most Americans will never forget the images of those days. Although the two events had different catalysts, one

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message was very clear—the United States was largely unprepared for major catastrophes. Since that time, one word that had been important to emergency management practitioners and academics for years also became important to public officials and private citizens—sustainability.

The term *sustainability* refers to the ability to effectively use natural, human, and technological resources for the needs of a community while also ensuring those resources are in place to meet future needs (Geis & Kuzmark, 1995). As James Lee Witt once stated, all disasters are local (Edwards & Goodrich, 2012), and local government handles immediate response. Thus, it is the responsibility of local government to ensure that resources are available to effectively respond to a crisis. However, how can a local government and its community sustain disasters such as 9/11 and Hurricane Katrina if mitigation is not a priority?

Mitigation, the first phase of comprehensive emergency management, is defined by Federal Emergency Management Agency (FEMA; 1996) as "actions that involve lasting, often permanent, reduction of exposure to, probability of, or potential loss from hazard events" (pp. 1-3). Some common mitigation strategies include structural engineering projects, property protection, and natural resource protection, all of which help cities sustain disasters (Kapucu & Garayev, 2012). However, another area of mitigation is prevention, which "focuses on the hazard that causes disaster and tries to eliminate or drastically reduce its direct effects" (Kreimer & Arnold, 2000, p. 143), which includes educating the public, working with volunteers, and creating strong intergovernmental relationships (Edwards & Goodrich, 2012; Norris-Tirrell, 2012). Successful prevention requires cooperation and collaboration among members of a community as well as local government employees, all of whom offer insight into the attributes and risks that characterize a municipality. Focusing on "strategic partnerships" will allow governments and communities the ability to "approach the challenges presented by the preparation of comprehensive disaster mitigation plans in an interdisciplinary fashion" and, as a result, sustain the effects that often come with disaster (Salkin, 2008, p. 13). Furthermore, Salkin (2008) states that including "cross-disciplinary speakers and audiences" outside of training rooms will offer greater understanding of the roles various individuals and groups can play in mitigation (p. 13).

Interdisciplinary discussions regarding mitigation lead not only to new perspectives on mitigation strategies but also to identifying the resources needed for risk reduction so that communities can effectively use those resources to build sustainability. Creating a sustainable community "means that decisions made by the present generation will not reduce the options of future generations, but will pass on to them a natural, economic, and social environment that will provide a high quality of life" (Salkin, 2008, p. 1). Although sustainability often focuses on technological and ecological solutions, the basic foundation of the concept, the effective use of resources, also can apply to the social aspect of building strong communities. In fact, it is the social dimension that is often characterized as the weakest area in implementing sustainability (Dale & Newman, 2008; Lehtonen, 2004). Building the social aspect of sustainability requires bringing together a "regularly interacting

system of networks" to understand its diverse characteristics, needs, and priorities (Dale & Newman, 2008, p. 6).

Employees within the system of local government have diverse backgrounds, experiences, and education (Feiock & Stream, 1998), which can positively affect mitigation efforts if individuals are willing to collaborate during planning stages. Regularly convening individuals from various local government departments to discuss mitigation efforts reveals not only priorities and issues faced by each but also vulnerabilities of the system as a whole. Some departments are regularly included in mitigation efforts, such as engineering, public works, and emergency management. However, one department that is central to the entire system is the human resource (HR) department. As the department responsible for managing the human capital of local government, HR professionals can offer a new perspective to prevention.

For example, in the aftermath of Hurricane Katrina, Goodman and Mann (2008) found that local governments along the Mississippi Gulf Coast did not address many HR issues in their emergency plans. Some of these were routine duties that were conducted daily, weekly, or monthly with few problems. However, in times of crisis, these same local governments faced obstacles in completing these tasks. Yet if local governments had considered including HR departments in mitigation efforts, some obstacles may have proven to be less problematic.

The purpose of this article is to identify the vulnerabilities faced by local governments as well as possible ways in which HR departments can target those vulnerabilities through mitigation, thereby enhancing sustainability. First, to fully understand mitigation in local government, one must understand the phase's history as well as the various types of mitigation. Through McEntire's (2001) model of comprehensive vulnerability management, the author will describe ways in which HR departments can participate in mitigation activities that result in sustainable cities. Finally, the author will argue that the first step in sustainability is taking advantage of local government's most valuable resource—its employees.

Mitigation in Local Government

In recent years, local and state governments have become accustomed to extraordinary assistance from the federal government. For instance, according to a 2010 FEMA report regarding Hurricane Katrina, more than 1.4 million Louisiana residents registered for federal assistance, which for families and individuals, reached US$5.8 billion. In addition, US$5.2 billion has been allocated to assist in repairing and rebuilding communities, and more than US$520 million has been designated for mitigation efforts (FEMA, 2010a).

However, assistance has not always been readily available. In its early years, the government and the people of Colonial America believed in self-help. In times of trouble, the federal government was not considered as a source of funding for individuals or local governments that endured disasters. In the early 1800s, the federal government was still small; neither did it have the means to provide assistance nor did the

Constitution include a clause pertaining to disaster relief (Gaines, 1983; Suburban Emergency Management Project, 2006).

In the 1800s, as population increased and disasters became more frequent, the federal government began to play a role in disaster assistance. After a devastating fire in 1803 in Portsmouth, New Hampshire, the Congressional Act of 1803 was passed, which offered assistance in recovery, marking the federal government's first involvement in disaster relief. Following the New Hampshire fire, in the next century, Congress passed more than 100 legislative acts in response to domestic natural disasters (FEMA, 2010b; Lenckus, 2007).

Until the 1950s, relief of any type was perceived as the responsibility of the local government and private donors (Cooper & Block, 2006; May & Williams, 1986), although the federal government would sometimes approve assistance. However, the passage of the Disaster Relief Act of 1950 allowed the federal government to play a more permanent role, giving "the President broad powers to supplement the efforts and resources of State and local governments in alleviating suffering, hardship, and damage" when disasters did occur (Office of Emergency Preparedness, 1970). According to Goodisman (1983), the act rested on two major assumptions, which included "that the federal government would bear the major burden of disaster relief and that relief would be equitably delivered to all individuals and areas of the country" (p. 90). At that time, the "optimistic estimates of revenues excesses and continuing national opulence" allowed for "opening lines of funding for new relief needs" (Goodisman, 1983, p. 90), and disaster assistance became a priority.

In 1974, a second Disaster Relief Act was passed, which allowed the federal government to offer some assistance in other areas, including unemployment and health care. To apply for funding, local and state governments were required to prepare and implement emergency plans (May & Williams, 1986). At that point, planning became a priority.

To receive federal funds under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, local and state governments must have active mitigation plans to assist with the reduction to the loss of a community and with the identification of "strategic priorities for restoration, improvement, and growth" (FEMA, 1996, pp. 1-7). John Macy, FEMA's first director, introduced an integrated emergency management system that is now part of the National Incident Management System's (NIMS) training program, which many local government officials are required to receive training in (FEMA, 2008). By becoming familiar with emergency management programs such as NIMS, local government officials begin to see the importance of mitigation efforts. In addition, that training offers an opportunity to begin considering the resources available as well as the personnel that may be able to assist in those efforts (Godschalk & Brower, 1985; Goodman, French, & Mann, 2010).

Bridging EM and HR to Mitigate Disasters

Disasters such as the 9/11 attacks, the February 2008 tornado outbreaks, and even the 2011 Japanese earthquake and tsunami show that emergency management planning

and response are important to all communities. However, before planning can begin, the risks that cities, counties, and states face must first be assessed. In emergency management literature, risk assessment and implementation of a risk-reduction program is termed *mitigation* (National Academy of Public Administration, 1993; Petak, 1985). In a 1985 special issue of *Public Administration Review*, Petak (1985) stated that research in emergency management has given significant attention to response, but what has been lacking is "the development of a better understanding of public problems and finding solutions from a public policy/public management perspective" (p. 3).

More than 20 years later, Petak's statement is still applicable, especially in mitigation. "In 1980, the number of people affected by major natural disasters was 100 million; this figure had reached 311 million by 1990, and it was estimated to be half a billion—or 8% of the world's population in the year 2000" (El-Masri & Tipple, 2002, p. 157). Much of the increase can be attributed to development in vulnerable areas, which deems mitigation efforts to be even more important. Although upper socioeconomic are attracted to vulnerable and hazardous areas because of their scenic landscapes, other areas are attractive to lower socioeconomic classes because it is simply cheaper, more affordable real estate. In addition, while the wealthy can afford the risk by purchasing insurance to assist with rebuilding after catastrophes, others rely on the help of the federal government in the aftermath of a disaster, such as the residents of the lower Ninth Ward following Hurricane Katrina (Cutter & Emrich, 2006; El-Masri & Tipple, 2002). Thus, because development in these areas will continue, so should mitigation efforts. After all, as El-Masri and Tipple (2002) contend, "approaches to sustainable mitigation of natural disaster acknowledge that natural processes and human activities interrelate to produce disasters, and that most of the issues and solutions are therefore also interrelated" (p. 162).

Thus, the social, cultural, and physical factors that influence construction in vulnerable areas results in important public policy and management issues for local government. Because local government is the first to respond in a disaster, planning must begin at that level. However, as Petak (1985) stated, one of the challenges of emergency management planning and response is the lack of coordination between organizations and departments (p. 5). Therefore, it is important for all departments to find a common ground that will serve as a link in helping in each of the four phases of comprehensive emergency management. Because HR has contact with the majority of departments in local government and because HR's role has transformed over the years from strictly administrative tasks to strategy and consulting, the department could positively affect mitigation.

Historically, mitigation is the phase of the EMF that ranks as a last priority to most local governments. New infrastructure is expensive, new construction and building restrictions in hazard-prone locations such as coastal areas are not always popular, and time and resource constraints mean that attention is focused on other daily duties of local government.

> Mitigation is not only a duty of respective governments, but of every stakeholder ranging from individuals to businesses and governments. In other words,

> successful mitigation is not possible if necessary measures and policies designed by governments are not supported and/or implemented by citizens and other at-risk entities . . . Mitigation activities should be seen as a duty of every individual belonging to society (Kapucu & Garayev, 2012).

As Kapucu and Garayev (2012) argue, the definition does not name an individual, group, or organization that is responsible for mitigation activities, making all individuals, groups, and organizations responsible for reducing risks. They add,

> As with every other aspect of emergency management, the successful mitigation plan requires the involvement of collaborative partners at all levels to address the needs of a community as a whole. Therefore, an effective mitigation planning and precondition process requires the engagement and collaboration of multiple individuals as well as entities that have a stake in mitigation. (Kapucu & Garayev, 2012)

Because the HR department plays a central role in local government and at some point has contact with all employees, mitigation efforts can begin upon hiring. By creating a partnership focused on mitigating the risks faced by the locale, HR professionals have the opportunity to play a major role in protecting the organization. The basic premise of strategic human resource management is that HR departments should be involved in the planning and implementation of strategies that directly affect them and employees (Mathis & Jackson, 2006). In the case of local government, the community they serve is also important. In the aftermath of disasters, employees of local governments play a vital role in the short-term response and the long-term recovery of a community. However, unless employees understand the risks communities face in times of emergency and the mitigation efforts that can be taken to reduce risk, their assistance in recovery may be delayed and ineffective. As Tierney (2005) explained, "overall management of large-scale disasters requires much more [including] the ability to assess threats and anticipate likely impacts and consequences of events" (p. 117).

Although the most common association with mitigation activities include addressing structural concerns, HR professionals can assist employees in identifying and participating in nonstructural mitigation. In 2002, the Multihazard Mitigation Council termed this type of mitigation as process mitigation, which is defined as

> indirect mitigation activities that lead to policies, practices and projects that reduce risk. They include efforts to assess hazards, vulnerability and risk; conduct planning to identify projects, policies and practices and set priorities; educate decision-makers and build constituencies and political will; and to facilitate the selection, design, funding and construction of projects. (p. 32)

According to FEMA (1996), the U.S. emergency management system requires that local governments respond first to its community's needs. However, multiple

emergencies, disasters, and catastrophes have shown that help comes from many different government organizations, nongovernmental agencies, and citizens. Although most discussion around mitigation involves zoning and building, this phase also focuses on simple tasks such as educating employees of government agencies, the public, and businesses about measures they can take to reduce damage. For HR departments, basic information on securing office equipment as well as locating shelters could be included in orientation material for new hires. In addition, contact information for reporting maintenance problems in and around buildings such as blocked drains or broken windows that could increase risk during floods or severe weather could be included in new employee handbooks. Finally, as consultants of benefits programs for their city, HR departments also could play a substantial role in mitigating public health crises by distributing information during public health high-risk times such as the flu. By simply sending emails of flu shot availability or by scheduling flu shot clinics for employees, HR departments could mitigate health epidemics in the workplace. Thus, because of their involvement in the orientation process for new employees and the ability for contacting employees citywide, HR departments could play a significant role in mitigation.

HRM, Mitigation, and the Reduction of Vulnerability

In local government, not only are HR departments often responsible for administrative duties such as compensation and classification but they also serve as consultants to other departments. By assisting department heads with the identification of the knowledge, skills, and abilities needed in their employees, HR professionals are able to assist in the creation of an effective workforce. Working with department heads to identify the KSAs needed for employees also gives them an overview of supply and demand. Not only are local governments competing with one another for employees but government also competes with the private sector. Thus, forecasting and workforce analysis are exceedingly important to the creation of a strong, stable local government workforce. When disaster strikes, certain skill sets often are in greater demand (Goodman & Mann, 2008; Harris, 2006). For example, in the aftermath of Katrina, cities reported a high demand for building inspectors, many of which retired or decided not to return to the Mississippi Gulf Coast. Thus, the recovery process, which incorporates mitigation efforts in new construction, was delayed. This particular area of expertise was not one that cities realized would be in such high demand.

While the actual disaster creates one set of problems, the social response to the disaster also may complicate or ease matters (McEntire, 2001). However, the more individuals and departments involved in the mitigation process, the more likely are community vulnerabilities to be exposed, resulting in increased sustainability. As the goal of any mitigation activity is to reduce risk and target vulnerabilities, HR professionals can assist their local government in this phase of emergency management by identifying mitigation activities in each of the six areas identified by McEntire (2001). By investigating the six vulnerabilities outlined in the model of

comprehensive vulnerability management (McEntire, 2001), the role of HR departments can be explored. These vulnerabilities, which include physical, social, cultural, political, economic, and technological, serve as a foundation on which sustainable cities can begin to be built.

Physical

According to Caruson and MacManus (2008), infrastructure-related vulnerabilities include public services that are essential to a community, the facilities in which they are located, and "the human resources that are associated with these facilities" (p. 288). In the discussion of mitigation, much literature focuses only on aspects such as building codes, land use policies, and structural regulations. However, Goodman and Mann (2008) define mitigation as "activities taken to evaluate and reduce long-term risk to human life and property from hazardous events" (p. 4). Although HR professionals may not be knowledgeable about planning and zoning procedures, they do serve as points of contact in which information about the facilities and buildings in which employees work can be distributed. Information such as emergency exits and evacuation procedures can be explained as part of the initial employee orientation and training. In addition, FEMA (1996) states that mitigation also includes instructions on securing office equipment such as file cabinets, bookshelves, and computers, which also can be included as part of orientation. Finally, education of physical surroundings is also part of mitigation, and employees can be made aware of the vulnerabilities in those surroundings, such as information on infrastructure and geography. Information on infrastructure can include details such as age of the building, structural concerns, or even if the type of organization housed there that may have implications for specific disasters, such as terrorist attacks. McEntire (2001) stated that some structures, such as dams and levees, also affect disaster vulnerability by contributing to flooding or creating a false sense of security. Geographical concerns would include information on specific regional issues such as hurricanes, tornadoes, or floods, along with factors that may make a region more susceptible to terrorism, such as being close to a port or international border. The federal government offers additional assistance in understanding early warning signs through the Department of the Interior that HR departments can access to use in prevention (Czerwinski, 1998).

Social

Since 2001, the federal government has called for an increase in the preparedness of local and state government (Jenkins, 2007). However, these catastrophes have affected the economies of local governments, thus also affecting the resources allocated to planning. A National League of Cities survey of 400 cities found that "one in three American cities saw their local economies, municipal revenues, and public confidence decline while public safety spending is up," and, in 2002, the National Governors Association expected between a US$40-billion and US$50-billion shortfall in state

budgets, which made additional training that resulted from the 9/11 terrorist attacks nearly impossible (Yim, 2002, p. 13).

While limited education may increase vulnerabilities, without funding, local governments face two major problems. First, to become more knowledgeable about disaster mitigation, training is needed, which is often expensive. Second, without additional funding, local governments are unable to hire employees who can assist with mitigation efforts. Thus, local governments must make due with the resources they have to protect their communities. Human resource professionals are knowledgeable about the human capital, "the collective value of the capabilities, knowledge, skills, life experiences, and motivation of an organizational workforce" that makes up their organization (Mathis & Jackson, 2006, p. 8). With this knowledge, HR managers and their staffs are able to determine how current employees can assist in mitigation efforts, such as identifying employees who may have experience in grant writing, which could increase the ability to receive federal funding. If employees are willing to go beyond the responsibilities of their particular positions, local governments may be able to obtain federal funds not only for training but also for hiring new employees.

Furthermore, HR professionals must make mitigation efforts a priority within their field, creating networks in which individuals and organizations can share knowledge and experiences as well as seek assistance of others. For instance, the Florida Public Personnel Association has an active listserv in which members can ask questions or seek direction and guidelines regarding various HR activities, such as compensation, discipline, and recruiting. As lessons are learned or as guidelines are developed, HR professionals can share information, which might include available grants, problems faced in the aftermath of disasters, and solutions that help to address these problems. Creating such outlets for HR professionals to share their experiences will help overcome the obstacles of lack of funding and training.

Yet, Donahue and Joyce (2001) identify an adverse effect of cities being prepared. As stated earlier, disasters do not know geographical, political, or cultural boundaries, and when a negative incident occurs, it often affects multiple jurisdictions. Specifically, the authors state,

> Local mitigation efforts readily produce positive externalities. As hazards are rarely contained within political boundaries, several adjacent communities may be in danger from a single hazard. If one community undertakes projects to reduce such a hazard, surrounding communities are likely to benefit, and thus should bear some of the cost through tax-funded grants-in-aid awarded to the producer. (Donahue & Joyce, 2001, p. 731)

In addition to limited resources that strains services and resources, some cities face an increase in population due to disasters. In the days following Hurricane Katrina, the population of Baton Rouge, Louisiana, skyrocketed from 225,000 to 725,000, and although the city saw a US$25-million surplus in sales tax revenue in the year following Katrina, the initial population boom created problems for local governments

(Johnson, 2007). "Technical and administrative capacities of local governments are limited in dealing with the complexity of the problems" and often these population booms, although beneficial in long-term revenue, bring problems in the short term that local governments have difficulty adjusting to (Petak, 1985, p. 5). Population shifts affect crime rates, education, and employment, among other factors, which, in turn, have a direct effect on local governments (Clark & Murphy, 1996; Lapkoff & Li, 2007; Rotolo & Tittle, 2006). In SHRM, HR professionals are responsible for assessing the internal workforce as well as forecast the external supply of human capital. In examining the external environment, several factors must be considered, including economic and geographic conditions (Mathis & Jackson, 2006). When disaster strikes an area, often residents migrate to larger cities, which affects not only those cities but also the original communities of residence. If HR professionals are included in emergency planning, workforce forecasting and other HR needs may be addressed. Population shifts will result in the need for additional services, which should be acknowledged during mitigation.

In addition to limited education and population shifts, a third social vulnerability faced by local government is the possibility of overlooking and excluding some individuals and groups in a comprehensive emergency management plan (CEMP). For example, the result of the media focusing on political battles and racial discrimination in the aftermath of Katrina was oversight of the city's elderly population. "Age has been the most under-reported story of Katrina. The 'vast majority of the 1,322 people who died in New Orleans were old'" (Garnett & Kouzmin, 2007, p. 176). In addition, Stivers (2007) argued that the poor and minority populations also were neglected by public officials in New Orleans and that

> five of the six areas classified as most heavily damaged are "project neighborhoods" in which poverty rates ranged from 60 percent to 80 percent, unemployment was above 20 percent, 80 percent of residents were renters, and the population was predominantly black. (p. 53)

Many in these groups were unable to evacuate New Orleans because of lack of money, unavailable modes of transportation, and health issues. Because the city's disaster plan estimated that between 100,000 and 130,000 residents would not be able to leave the city because they did not have access to private transportation, school buses were included in the plan to assist in evacuation. However, the detail of who would drive the buses was excluded.

In identifying prevention methods, HR professionals can offer details such as the availability and designations of employees for various duties may be less likely to be overlooked. As Sylves (2008) states, volunteer organizations often are involved with educating the public about disasters. The National Volunteer Organizations Active in Disaster (NVOAD) works with more than 50 volunteer organizations, who, in turn, work with hundreds of volunteer agencies at the state level. "By joining together before disasters strike, member organizations are more likely to provide effective disaster aid with less duplication" (Sylves, 2008, para. 17). At the local level, HR professionals

could work closely with various volunteer organizations in training and education, and, through networking with these entities, KSAs that would be helpful in response and recovery could be identified. For example, volunteerism among older Americans has risen in the past 20 years (Smith, 2004), and volunteers tend to be educated, have greater incomes, and hold nonmanual positions (Choi, 2003). In times of crisis, such as the problems faced on the Mississippi Gulf Coast following Hurricane Katrina, local governments could rely on volunteers, especially retired professionals. Thus, by working with volunteer agencies, HR professionals and local governments could benefit from the education and experiences volunteers have to offer not only in response and recovery but also during the mitigation phase.

Cultural

Planning for a disaster and analyzing its possible effects is usually not a concern for individuals until it is too late. Wilson et al. (2007) said that many times, individuals do not believe a disaster will happen to them, and, therefore, they do not feel insurance is necessary. Coastal residents who have lived to see many evacuations that were called for too early are less likely to evacuate. The result is the belief that if a disaster did occur, the federal government would take care of the damages. Many individuals, then, do not see the importance of mitigation and refuse to take personal responsibility. In fact, research has shown that even if individuals are knowledgeable about hazards that surround their communities, they tend to have low levels of concern because they "ignore the consequences" (Czerwinski, 1998, p. 4).

Unfortunately, the media, which is one of society's most influential sources, often is not helpful because covering stories of planning are less dramatic than stories of reaction (Garnett & Kouzmin, 2007). Thus, because planning and prevention does not become a "hot topic" of discussion, the public does not understand the importance of mitigation, resulting in apathy, which often leads to inaction, and inaction in the face of danger will not have a positive result. Eisenman, Cordasco, Asch, Golden, and Glik (2007) found that culture and defiance of safety precautions and regulations were linked. In a survey conducted in the three evacuation centers in Houston, Texas, the authors reported that beliefs, attitudes, and values, along with past experience, affected the decision of New Orleans residents to evacuate (Eisenman et al., 2007). Interviewees said,

> And, well, we didn't take it seriously. Because we thought it was going to be another Betsy. You know, with a little water coming in the house.
>
> The last storm we had there, it was more people got hurt on the highway traveling away from the storm, running out of gas, accidents, than it would have been if they stayed home.
>
> The water started to rise due to that breech in the levee system. That's what caused that water, not the hurricane. (Eisenman et al., 2007, p. S111).

While fighting apathy in communities may be a challenge and may be difficult to overcome, it is not impossible. One of the duties of local government HR departments is to understand and manage diversity. According to Mathis and Jackson (2006), four approaches to diversity can be taken: ignoring diversity, dealing with diversity, building acceptance of diversity, and solving diversity issues and creating an inclusive culture. In relation to emergency management, it is pertinent that local governments follow the last two approaches, which would include realizing that diversity is beneficial to the community, reducing conflict, solving problems internally, and approaching problems proactively. For mitigation activities to be effective, local governments must understand the culture of their community. Human resource professionals can assist by scheduling diversity training workshops that create cultural awareness among local officials, resulting in more effective planning. In addition, diverse environments have their own sets of problems such as "miscommunication," "cultural misunderstandings," and "organizational functionalism," "opportunities, such as accessibility to a wider array of viewpoints and increased tolerance for different work styles, may lead to greater productivity and improved performance" (Hur, Strickland, & Stefanovic, 2010, p. 500).

Thus, creating an environment of inclusiveness will result in a better quality of life for communities, and, if residents feel that local officials are aware of cultural issues, they are more likely to accept their warnings and suggestions. "Before local governments can provide the quality of life that their communities require to survive, they will need to change their perceptions of 'community' and translate those new perceptions into practical methods of planning, developing, and rehabilitating those communities" (Geis & Kuzmark, 1995, para. 11). Public officials need to understand how judgment and action can affect their communities. Stivers (2007) found that many of the decisions surrounding Hurricane Katrina were due to bureaucrats strictly following procedure when, in many instances, their personal judgment and responsibility as elected officials called for assistance to those in need, including the poor, African Americans, and elderly residents.

> Public administration relies heavily on the wise and unbiased exercise of discretion, yet there is considerable evidence not only that judgment is often exercised according to the personal morality of the individual bureaucrat but also that, when examined more broadly, there is a pattern to such judgment that is biased against African Americans and the poor. (Stivers, 2007, p. 51)

While public officials may not intentionally make decisions based on these factors, residents tend to be perceptive of their actions. In the aftermath of Hurricane Katrina, evacuees stated,

> The mayor, the governor of New Orleans, that run the city of New Orleans they let the waters go in the poor neighborhoods and kept it out of the rich neighborhoods like that French Quarter where tourists goes at.

> It was from them opening flood gates, telling lies about the levee breaking and stuff . . . I believe they do these things intentionally . . . so they can flood out those black neighborhoods. (Eisenman et al., 2007, p. S111)

Human resource professionals can assist can play an active role in helping public officials change the culture as well as the perception of government decision making within the community by embracing diversity training. Diversity training can also teach public officials how to adapt to changing cultures, especially when a disaster leads to an influx of new residents. If public officials understand the impact they can have in changing perceptions, mitigation efforts may be more effective.

Training and development is a common HR responsibility, but these types of educational activities are not limited to the halls of local government. As HR professionals become knowledgeable about mitigation and prevention, local governments can help to spread the knowledge by encouraging community training. Through open sessions, individuals, organizations, and private businesses can contribute to sustainability by learning from the HR department of their own local government. Again, although resources are often limited, the federal government often supports innovative methods to reducing risks and creating sustainable cities. For instance, the U.S. Department of Housing and Urban Development recently announced the availability of Sustainable Communities Regional Planning Grants, which supports such activities as economic and workforce development as well as partnerships among planning agencies and public education entities (U.S. Department of Housing and Urban Development, 2011).

Political

When disaster strikes, the local government is the first to respond, which means that when planning, local government officials should address the needs of their specific communities. Public officials at the local level understand jurisdictional needs better than the state and federal governments, but the need for emergency plans tends to come "top down" (Drabek & Hoetmer, 1991, p. 30). Emergency management faces an "intergovernmental paradox" in that emergency management planning is low priority for local government although it is local government who is the first to respond (Sylves & Waugh, 1990, p. 59). "Policy makers view other current problems as more pressing and important. There are insufficient advocates within the internal workings of legislative bodies, which results in a lack of political support and necessary resources" (Petak, 1985, p. 5). In addition, as Donahue and Joyce (2001) argue, the possibility of a disaster occurring during the tenure of a public official is minute, so the decision to spend money on mitigation and preparedness efforts may not be viewed as important by constituents.

One of the problems local governments may have in developing a solid emergency plan is that mitigation is often technical. Limited resources, funds, and staff may limit the ability for local government employees to devote time to understand the complexities of mitigation. At one time, it was believed that emergency managers usually focus

on preparedness and response leaving mitigation activities to be coordinated by planning and public works employees who face the demands of other responsibilities (Godschalk & Brower, 1985, p. 70). Lack of resources also means that public officials must prioritize projects, resulting in some long-term projects taking a backseat to more immediate concerns. As a result, Edwards and Goodrich (2012) argue, these limitations sometimes result in a political environment, in which citizens, government, and private sector have conflicting points of view.

However, many local governments do not believe that their communities will face a natural disaster and with limited resources and a politically charged environment, mitigation often falls by the wayside (Godschalk & Brower, 1985). "Hurricane-related disaster plans from the federal government took up several feet of shelf space in state and local offices. 'Nobody ever actually ever reads them,' commented the emergency director for Plaquemines Parish" (Stivers, 2007, p. 48).

The key to successful planning is strong leadership, and local government officials must take responsibility for the future of their communities and the importance of sustainability. The U.S. Government Accountability Office (GAO) found in an analysis of the preparation and response to Hurricane Katrina that one of the needs to be addressed is "clearly defined and understood leadership roles and responsibilities" (Jenkins, 2007, p. 18). Leadership is more than making daily decisions; it is also about properly using resources in the present so that future generations can continue to sustain crises.

Local governments cannot continue to put mitigation aside but should become proactive in addressing the vulnerabilities their community faces as well as the impact those vulnerabilities have on other locales. For instance, after the flood gates of one California city were closed due to flash flooding, flooding of other structures upstream caused damage to buildings, parking garages, and a light rail line. The city took responsibility for some damage and then spent US$20 million for construction of a new pumping station. Although problems persisted, communities must collaborate to identify preventative measures (Edwards & Goodrich, 2012).

At the time of the building of the pumping station, federal funds were not available for mitigation (Edwards & Goodrich, 2012). However, since the 2001 terrorist attacks and Hurricanes Katrina and Rita, the federal government has granted local and state governments more than US$11 billion to support local government emergency planning. However, many local governments do not have the resources to devote to trying to obtain grants so one solution would be for local governments to coordinate grant writing efforts for local and regional mitigation. The GAO found that rather than concentrating on just one single jurisdiction, communication about planning and preparation could be approached as a regional and multigovernmental task (Jenkins, 2006, p. 5). Local governments could pool their limited resources, personnel, and funds to tackle mitigation efforts. Goodman and Mann (2008) found that following Hurricane Katrina, many HR directors on the Mississippi Gulf Coast began working together on personnel issues, when prior to the storm, this was not a usual practice. In SHRM, HR professionals are trained in collaborative HR, which means that learning to work

with different organizations to address problems (Mathis & Jackson, 2006). Local government HR professionals, then, could use their knowledge, skills, and abilities in the mitigation process by suggesting that local and state governments pool their resources to address regional problems.

Collaboration between governments also would be helpful in the mitigation process in that problems faced in one locale could be addressed before the problem occurred in another jurisdiction. HR professionals, along with elected public officials, could serve as a point of contact for collaboration. Cigler (2006-2007) stated, "We tend to overlook those we might call the 'pre-event mitigators'—the planners and policymakers who can change the relative threat of disaster" (p. 4). Learning to communicate and collaborate across city, county, and state lines can result in addressing problems before they occur. Pooling resources to better prepare a community can only result in a positive outcome. After all, "local officials are especially important stakeholders in the policy implementation process. Increasingly, they must master networks and 'administrative structures involving multiple nodes (agencies and organizations) with multiple linkages'" (Caruson & Macmanus, 2006, p. 523; McGuire, 2002, p. 600).

Economic

As discussed previously, many local government officials often do not make mitigation a priority and often resort to the belief that disaster will not affect their communities. Many officials see the training needed for an effective emergency management plan as expensive and believe that the costs of training and planning do not produce results that are worth the investment of time and money (Petak, 1985). The GAO pointed out that one of the economic problems faced by all levels of government is that data that compare the costs of mitigation to the loss expected in the event of a disaster are unavailable, unclear, and incomplete (Czerwinski, 1998), and as McCreight (2010) argues, "we still lack an understanding of how much mitigation would have made a difference" in disasters like Hurricane Katrina and the 9/11 terrorist attacks (p. 1). Without accurate information, it is easier for public officials to resist funding mitigation activities. Yet the federal government has increased funding for mitigation since 2001, making it more accessible to local governments. If included in emergency planning phases, HR professionals can stress the importance of indirect mitigation activities along with the potential results of including common HR tasks.

The economics of disasters are further complicated in that the law does not define the term *emergency*, giving the president and Congress decision-making power. The federal government has proven to be more likely to allocate money for an "emergency" after it occurs rather than defending appropriations for mitigation and preparedness in budgets. If included in the budget, these programs compete with others already fighting for appropriations—others that may provide direct results. "It would be more difficult to declare mitigation and preparedness funding as 'emergency' spending" because these programs are not seen as urgent, sudden, or necessary (Donahue & Joyce, 2001, p. 735).

Although funding for mitigation programs seems to be sporadic, local governments can focus on other efforts that cost very little (Donahue & Joyce, 2001). According to Mathis and Jackson (2006), the economic health of an organization often relies on the "capability and motivation" for employees to effectively do their job, and organizations are most successful when it is evident that their employees do matter (p. 68). With this in mind, HR departments can affect the economic arena of local governments by offering advice for indirect mitigation activities that do not require large sums of money. For example, offering department heads suggestions in the areas of selection, recognition, and motivation will assist with keeping turnover low and motivating employees to go beyond the call of duty. For example, in the aftermath of Hurricane Katrina, one hospital reported that their success was based on "excellent staffing, including low turnover among senior staff, [that] allowed for a high-trust culture" (Haeuser, 2007, p. 145). If HR assists in creating an environment that welcomes employees' thoughts and comments—whether negative or positive—employees may be more willing to stay, keeping turnover down, reducing the cost of hiring, and training new employees. In addition, it increases institutional memory, which, in times of crisis, becomes important in sharing lessons learned. Employees know their responsibilities and organizations, which creates a better understanding of the risks their particular departments face. While the message of employee empowerment and collaboration is one that should be delivered on a daily basis, HR departments can reinforce the message by including it in mitigation plans.

Finally, HR departments are responsible for managing compensation and benefit packages. Goodman and Mann (2008) found that some cities did not include payroll and benefits information in their CEMPs, which caused problems in the aftermath of the hurricane. In the *Emergency Management Guide for Business and Industry*, FEMA (1993) suggests that information regarding "cash advances, salary continuation, flexible and reduced work hours, crisis counseling, care packages, and daycare" should be included in CEMPs (p. 44). In addition to these employee support services, HR professionals could offer guidance on contacting and coordinating employees before, during, and after a disaster. In the New Orleans' CEMP, planners realized that buses were a necessity for individuals who did not have private transportation and needed to evacuate. However, the plan did not designate drivers (Col, 2007, p. 117). Managing employees is the primary role of an HR department, and attention to these types of details can assist cities in emergency planning.

Technological

In the aftermath of Katrina, employees of local governments along the Mississippi Gulf Coast stated that one of the problems faced was the inability to communicate with employees and that new disaster plans would address the issue (Goodman & Mann, 2008). Although the city of New Orleans had a crisis communication plan, it called for working telephones, which was not a capability after the storm (Fearn-Banks, 2011). As technology has become more and more accessible, reliability on cell phones, computers, and other devices has increased. However, natural disasters often disable

phone lines, cell phone towers, and Internet services. Without a plan addressing communication in the aftermath of disaster, having employees return to work to assist in recovery will be difficult. Although some announcements were transmitted via local radio stations, most employees traveled farther than the station's transmission area (Goodman & Mann, 2008). This is an issue that HR professionals in coordination with public information officers can address during the planning phases of emergency management.

"Although many hazard problems have been caused by the application or misuse of technology, solutions require the integration of both technological and political alternatives" (Petak, 1985, p. 5). As partners with other communities, HR professionals can serve as a liaison for communication solutions between the two organizations. The GAO suggested that in partnering with other local and state governments, one issue that should be addressed is personnel (Jenkins, 2007). By working with department heads in their own organizations, HR staffs can understand the technological needs of those departments in case of emergency and also identify organizations to assist with technological demands in the aftermath of a disaster. In addition, Goodman and Mann (2008) found that because many of the computers of local governments were left on the floor or were completely destroyed by the hurricane, HR managers had to travel to other jurisdictions to run payroll. When working on the mitigation phase of emergency management, HR professionals can identify other governments or businesses that use similar programs. Also, because of their involvement with compensation and payroll, HR departments also could work closely with banks, identifying branches outside of their own jurisdictions that can assist with direct deposit, obtaining cash, and other needs. Finally, when new employees are hired, proper storage of equipment could be addressed as yet another method of mitigating risks and effects of disasters.

Summary

While mitigation may not be the first priority of many local governments, it should be ranked near the top. As the United States has seen with 9/11, Hurricane Katrina, and countless other disasters, mitigation can reduce some problems faced by local governments. As McCreight (2010) argues, it is time for local governments to move away from dependence on state and federal government in the aftermath of a disaster and move toward self-preservation. The first step in this transformation is including all departments in local government, especially the department that has knowledge of and access to the human capital that makes up an organization. Specifically, HR professionals can play a strategic role in mitigation efforts by applying their knowledge of the organization's workforce. Some recommendations include the following:

- *Assuming a role on planning teams:* HR departments fully understand the risks faced by their locale, which will assist with understanding the nonstructural mitigation activities they can initiate and implement.

- *Identifying and using resources available to the organization:* As the department that reviews the knowledge, skills, and abilities of the organization's employees, HR professionals could assist with effective talent management so that those resources are used to strategically reduce risk.
- *Disseminating information:* To physically reduce risk within the organization, HR professionals could spearhead information dissemination on reducing risk within the workplace, such as securing office equipment and finding in-place shelter.
- *Mitigating public health crises:* As the coordinators and knowledge experts of the organization's benefit programs, HR professionals could assist with the mitigation of public health crises such as scheduling in-house flu clinics during times of high risk.
- *Working with department heads:* HR professionals can work with department heads on helping to identify the KSAs offered by employees in individual departments that may be valuable in times of crisis.
- *Addressing vulnerable populations within the organization:* As the department who is knowledgeable about employees with disabilities, HR professionals could assist their employees with identifying workplace partners who can assist vulnerable individuals during times of crisis.
- *Creating training and development programs:* Training and development plays a significant role in mitigating risks, and by creating exercises and workshops specific to the organization, HR professionals are able to target vulnerabilities so that employees can sustain disasters.
- *Assisting with the grants process:* As HR professionals understand policies and procedures, their expertise with attention to detail through difficult application processes could be useful when the organization applies for mitigation grants.
- *Getting involved:* Involvement in the planning process is a necessity. As the department that not only understands the human capital of the organization but also serves as a consultant for bringing valuable resources to the organization, HR professionals bring a human perspective to building a sustainable organization.

By examining the six vulnerabilities discussed and the capabilities of one of the organization's vital departments, HR professionals now have a framework to begin thinking about the sustainability of their own organizations and the communities in which they live. Because of their knowledge, skills, and abilities, HR departments can play a vital role in mitigation. As a link to employees throughout local government, mitigation can begin the day new employees arrive. The challenge for many locales is reducing the risk. However, as more departments find ways to focus on indirect mitigation activities, cities will become better prepared and, even more important, sustainable.

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