

CHAPTER

16

Future directions in emergency management

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This chapter provides an understanding of

- The emergency management profession
- What Hurricane Katrina revealed
- Myths and lessons in emergency management
- The future of emergency management.

In "Future Directions," the concluding chapter of the 1991 edition of *Emergency Management: Principles and Practice for Local Government*, William Anderson and Shirley Mattingly noted that in vulnerable areas, both population density and the concentration of capital were increasing; as a result, more lives and property were being put at risk. Moreover, Americans were continuing to migrate to hazardous areas, particularly along the Gulf Coast and the West Coast.¹ In these two respects, little has changed in the nearly twenty years since that chapter was written. Anderson and Mattingly also addressed social vulnerability, noting that the elderly, people with disabilities, those living in poverty, members of minorities, and non-English-speaking groups were at particular risk from disasters. Here again, little has changed; indeed, current population trends signal increases in the size of vulnerable populations. The aftermath of Katrina provided all-too-clear evidence that the most vulnerable segments of the population continue to face inordinate risk in the event of disaster.² And all too often, these same groups have the greatest difficulty putting their lives back together after disaster strikes.

Anderson and Mattingly also observed that emergency management had become increasingly focused on mitigation and pre-disaster recovery planning, rather than being limited to response. Since the terrorist attacks of September 11, 2001, however, the focus on mitigation has been supplanted by a focus on terrorism prevention, at least at the national level. Other issues touched on included the difficulty of finding legal support for hazard mitigation when private property rights are involved, the growing professionalization of the field, the role of the private sector, links between disaster research and emergency management practice, and important areas of research. The authors further pointed out that two positive developments—the increasing ability to predict disasters, and the growing understanding of the social and psychological effects they produce—were likely to improve the nation's capacity to manage hazards and deal with disasters. They concluded their chapter by enjoining emergency management practitioners and students to work actively to educate the public about risk and to promote effective disaster policies. Many of the concerns they identified have not yet been resolved, and their warnings should still be heeded.

Predictions of catastrophe came true along the Gulf Coast in August of 2005, and settlement patterns continue to put lives and property at risk (see Figure 16-1). Coastal development is intensifying, and people are still migrating to earthquake country, building on floodplains and in the urban-woodland interface, and creating dense urban developments that are vulnerable to all manner of disaster. Katrina's lessons do not seem to have taken hold. Surveys indicate, for example, that people at risk may be unwilling to take protective action, even when public officials issue warnings and evacuation orders: in a 2007 survey conducted among residents of Gulf Coast and East Coast locations that are vulnerable to hurricanes, 31 percent of respondents said that they would remain in their homes even if a mandatory evacuation order were given. Respondents gave the following reasons for refusing to evacuate:

- Their homes were well built and would be safe (75 percent).
- The roads would be too crowded (56 percent).
- Evacuation would be dangerous (6 percent).
- Their possessions would be stolen or damaged (33 percent).
- They would not want to leave their pets (27 percent).³

Given public perceptions of the Katrina and Rita evacuations, these findings are not surprising. Although the Katrina evacuation was remarkable for the sheer number of people moved out of harm's way, the debacle at the Louisiana Superdome would certainly dissuade others from using public shelters, and the problems associated with the transfer of evacuees to almost every state in the Union cannot have failed to create uncertainty about the fate of those who evacuate.

A number of strategies might address the problems revealed by Katrina: one is to aim for sustainable development, which involves making disaster resilience the focus of both emergency management and economic development. When development is sustainable, it is intrinsically less vulnerable to disaster; moreover, where sustainability has taken hold, land use professionals and others engage in ongoing efforts to build support for better land use planning in hazardous areas.⁴ Another approach, which has been suggested by sociologist Charles Perrow, is to reduce disaster losses by "shrinking the targets." In Perrow's view, population growth, high population density, and the concentration of infrastructure and industrial facilities in vulnerable areas are



Photo courtesy of FEMA/Andrea Booher

Figure 16-1 Aerial view of destroyed coastal neighborhoods in the Biloxi/Gulfport area after Hurricane Katrina

among the sources of increased risk.⁵ Areas that are less densely populated, and industrial facilities that are smaller and more widely distributed, would be less attractive as terrorist targets and less vulnerable to natural and technological disasters. However, finding ways to shrink urban centers, to disperse the populations of coastal zones, and to persuade industry to forgo economies of scale in favor of distributed operations would be monumental tasks.

The emergency management profession

In 2005, Richard Sylves pointed out that “emergency management continues to have such a weakly defined self-identity that it continues to be poorly understood by policy makers and the public.”⁶ The review of the profession initiated in 2006 by Michael Selves, president of the International Association of Emergency Managers (IAEM), was designed to address head-on the problems that had been identified by Sylves and others. The Emergency Management Roundtable, a group of practitioners and academics that met at the National Emergency Training Center in Emmitsburg, Maryland, in 2007, took the process a step further by developing a set of core principles that are designed to be the foundation for action. Although much remains to be done, the profession of emergency management is beginning to find its center—and, increasingly, is finding its voice when it comes to dealing with government officials, the media, and the general public. The first chapter of this volume touched on the profession’s emerging sense of itself: it defined the core principles of the profession, addressed the distinction between emergency management and emergency response, and discussed the difference between comprehensive emergency management and the national security functions that are the focus of homeland security programs.

One thing that has *not* changed is the foundation of the national emergency management system: it is still local government. Local, state, and regional capacity building is the among the principal goals of a number of organizations that represent emergency managers, including the IAEM, the National Emergency Management Association, the National Association of Counties, the National Governors Association, and ICMA. NFPA 1600, the current standard of the National Fire Protection Association, and the standards identified by the Emergency Management Accreditation Program (EMAP) provide benchmarks against which emergency managers can measure their programs. NFPA 1600 has a broad focus on emergency management and

business continuity planning, and its 2007 standards integrate the U.S. Department of Homeland Security's "prevention" function into the emergency management model.⁷ The EMAP standards focus on public emergency management programs and address the traditional roles and functions of emergency management agencies—including the need to prevent, prepare for, and respond to terrorism.⁸ At the local level, the role of emergency management in relation to terrorism generally falls into one of two categories: antiterrorism (reducing vulnerabilities and potential losses) and dealing with the consequences of terrorist attacks.⁹

In short, the roles and functions of emergency management are becoming increasingly clear. While some issues—such as the content of emergency management education programs and the various approaches to ensuring quality in practice—remain subject to debate, the boundaries of the profession—including a common body of knowledge, a code of conduct, and requirements for education and training—are in place. Emergency management is still an emerging profession by most measures, but it is readily distinguished from emergency response and other risk-related professions, such as risk management.

What Katrina revealed

Although the events of September 11 had a profound impact on the practice of emergency management at all levels, it was Hurricane Katrina that raised fundamental questions about the nation's capacity to deal with disaster, and awakened government officials, the media, and the public to the crucial need to shore up the foundations of the nation's emergency management system.¹⁰ Some of the issues highlighted by Katrina were those with which emergency managers have struggled for decades: for example, how can truly interoperable communications be achieved in order to ensure that the emergency manager can coordinate disaster operations effectively? How can emergency management agencies (and their communities) make the transition from routine to disaster operations and back again?

Additionally, Katrina raised questions about who has legal authority when catastrophic disasters cross multiple jurisdictional boundaries. During the response to Katrina, it was clear that local, state, and federal officials often failed to understand their own responsibilities and authority; as a result, some agencies overstepped their legal authority, whereas in other cases, tasks were left undone because no one assumed responsibility. The federal system may be cumbersome and frustrating, but it is the legal framework within which public officials work, and clarity about jurisdiction and authority is essential.

Precisely because they call for creativity, flexibility, and local knowledge, disaster operations cannot be managed from Washington or the state capital.

Katrina also highlighted the enormous challenges associated with managing catastrophic events, as opposed to more typical disasters. Creating large-scale devastation in an area roughly the size of Great Britain, resulting in more than 1,800 deaths, generating losses in excess of \$120 billion, and virtually paralyzing response systems in the affected region, Katrina vividly revealed what many disaster experts had long pointed out: that catastrophes are qualitatively different from the "garden variety" disasters with which most emergency managers are familiar, and that strategies for dealing with disasters cannot readily be scaled up for catastrophes. Yet planning for genuinely catastrophic events is still in its infancy.

Another problem dramatized by Katrina was the need for structures and processes to support decision making under crisis conditions. For emergency management officials at all levels, the missing ingredient was situational awareness—information from officials within the disaster zone. However, lack of information was exacerbated by the fact that decision making about resource allocation was centralized: by its very nature, centralized decision making is slower and less responsive than decentralized processes. Under extreme circumstances, how can operations on the ground best be supported? How can communications problems be overcome? How can information be shared within and among agencies, including nongovernmental organizations and volunteers? How can strategies be developed to encourage and facilitate adaptation and improvisation? Finally, how can decision makers ensure that information flows from

the disaster area to the officials who are responsible for allocating resources? Precisely because they call for creativity, flexibility, and local knowledge, disaster operations cannot be managed from Washington or the state capital. This is doubly true for truly catastrophic events.

Decentralized decision-making processes that incorporate well-designed decision-support systems can go a long way toward overcoming some of these problems. States such as California and Florida, for example, have invested in local and regional programs to ensure that local officials have the information they need to make operational and strategic decisions during emergencies and disasters. Statewide geographic information systems are a good example of the kinds of support that state officials can provide.

Disasters are dynamic events with political, social, and economic dimensions, and in which public and private interests sometimes collide. In the case of Katrina, the response was further complicated by a number of factors, including the sheer scale of the event, the fact that many National Guard and reserve units in Louisiana and Mississippi had been deployed to Iraq and Afghanistan, the poverty of many of the victims, the level of racial distrust in the region, poor planning, insufficient investment in mitigation, and the fact that even under the best of circumstances, local governments along the coast had limited resources with which to address social and infrastructure needs.¹¹ The poor and those with medical conditions or disabilities had little support before Katrina made landfall, and even less support after. The transportation and communications infrastructure was frayed and vulnerable (see Figure 16-2). The storm revealed deeper problems that need to be addressed in the redevelopment effort.

The U.S. military has been expanding its capacity to work with civilian authorities and nongovernmental organizations, particularly in humanitarian relief, international development, and complex emergencies where security is a central issue. The key to making such relationships work is the development of common objectives.¹² Greater involvement of the military in disaster operations in the United States is a certainty: the Northern Command has already been tasked with supporting civilian authorities in major disasters. Nevertheless, the use of troops to secure New Orleans was a highly unusual step in disaster response.

Although the military's logistical capabilities are not in question, the military's capacity to develop close, long-term working relationships with state and local governments is another matter. The ability to create such relationships is important because the links built during less severe emergencies provide the foundation for collaboration in major disasters. Trust is built at a personal level, and a "cavalry" approach simply does not yield the social and political connections that are needed for effective collaboration.



Figure 16-2 Highway 90 bridge from Biloxi to Ocean Springs, Mississippi, after Katrina's catastrophic winds and storm surge

Photo courtesy of FEMA/George Armstrong

Some critics of greater military involvement in disaster argue that it could be harmful in three ways: first, by diluting the military's capacity to fight wars; second, by creating confusion about whether military or civil authority is "in charge" during disasters; and third, by creating a "Samaritan's dilemma," in which the expectation of military assistance would lead subnational levels of government to decrease their own emergency management efforts. An overly militarized response to disasters could also lead to tensions with the community groups and spontaneous volunteers that respond to disasters.¹³

The logistical capacities that the military brings to relief operations are critical, and state and local officials need to be able to depend on those capacities in the event of disaster. Nevertheless, governors are reassessing their reliance on the National Guard and military reserve because units that are needed at home may be deployed overseas, and because Air Guard base closures have reduced the availability of aircraft to support disaster operations. Governors are also wary of efforts to federalize state assets and of even appearing to yield their decision-making authority to the military. The new emphasis on state-to-state, statewide, and community-to-community mutual aid is a reflection, in part, of the fact that the National Guard and the military reserve may not be available when needed.

Myths and lessons

Within the disaster research community, the lack of attention to studies that have debunked common disaster myths is a constant source of frustration. Some myths have profoundly negative effects on disaster policy and emergency management practice. For example, when government officials withhold information about a disaster out of fear that citizens will panic, they actually *increase* the likelihood of nonadaptive responses: research indicates that people respond best when they know that authorities are being honest and forthcoming with useful information.¹⁴ Other myths have an element of truth in them but need to be qualified: for example, although it is not true that looting is typical, it can occur under certain circumstances, as was demonstrated on St. Croix after Hurricane Hugo and in New Orleans after Hurricane Katrina. (It is important to note, however, that reports of looting after Katrina were exaggerated and sensationalized by the media.) Despite widely held beliefs that public officials and emergency responders will abandon their roles during crises, such fears are largely unfounded. It is true, however, that some New Orleans police officers were unaccounted for during the disaster and its immediate aftermath; in addition, some research suggests that health care providers may choose not to go to work during a pandemic.¹⁵

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What is more likely than role abandonment is the large-scale convergence of first responders, volunteers, and donations. And, as Katrina demonstrated again and again, activities (such as price gouging) that take advantage of the vulnerable are unusual. On the contrary, altruistic behavior is common: the overwhelming majority of disaster victims are rescued by neighbors, family members, co-workers, and total strangers, rather than by professional search and rescue teams.¹⁶ Finally, panic after disaster impact is very uncommon, and there is little evidence to suggest that biological or radiological threats increase the likelihood of panic.¹⁷ Research shows that panic and social breakdown are so rare because social bonds remain strong even under extremely stressful and dangerous conditions.¹⁸ Since the potential for confusion, anxiety, and rumors does increase under disaster conditions, especially if the public believes that information is being withheld, the best strategy is to provide as much information as possible and in usable forms (see Figure 16-3). Some people watch television, some listen to the radio, some rely on text messages and mobile telephones, and some go to the Internet for information.¹⁹

The profession of emergency management invests significant time and energy in the identification of "lessons learned." Some of the focus on lessons may stem from the requirement



Photo courtesy of FEMA/Michael Rieger

Figure 16-3 Local fire commander instructing residents of communities in Colorado about what to do if wildfires necessitate evacuation

to develop mitigation strategies after each disaster, to ensure that the same kinds of losses are not visited upon the community in the future. Unfortunately, however, identifying lessons and actually learning from them are two different things. In his research on disaster events and policy shifts, Thomas Birkland has identified a number of reasons that learning does not occur or is not translated into public policy. In some cases, lessons are lost as time passes; in other cases, another event prompts changes in policy that are at odds with earlier lessons.²⁰

Birkland's perspective is in keeping with the common wisdom in emergency management, which holds that support for disaster programs dissipates as the memory of an event fades. Policies addressing natural disasters and terrorism alike have tended to follow this pattern.²¹ For example, despite a history of effective disaster responses during the 1990s, the federal government was unable to mount a competent response to Hurricane Katrina. Evidently, the lessons of Hurricanes Hugo, Andrew, and Iniki—which had led, in the early 1990s, to the reinvention of the Federal Emergency Management Agency (FEMA) and the national emergency management system—were unlearned. In fact, the poor response to Katrina was eerily similar to the poor response to Andrew in 1992. During the Hurricane Andrew disaster, FEMA was criticized for being slow to respond, the FEMA director was replaced by Secretary of Transportation Andrew Card as the lead federal official in the response, and the after-action reports concluded that the agency included too many unqualified political appointees and had been drained of the resources needed to deal with major disasters.

Lessons should be guiding the development of emergency management programs. Nevertheless, it seems that lessons must be learned, and learned, and learned again. Because the same problems arise in one disaster after another, after-action reports are often repetitious. Reports from the ongoing series of Top Official (TOPOFF) exercises, for example, repeatedly mention problems with interorganizational and intergovernmental coordination. Reports from the Katrina disaster were filled with lessons learned that are thoroughly familiar to professional emergency managers—including, for example, the fact that approximately 20 percent of the population will not evacuate. The after-action report on the 1995 bombing of the Alfred P. Murrah Federal Building in Oklahoma City cited problems implementing the Incident Command System. Yet the same problem is mentioned in the report of the 9/11 Commission on the World Trade Center and Pentagon attacks, and in the White House report on the Katrina response.²² One pattern that remains consistent is that genuine learning and change are difficult, even after very severe disasters.

Figure 16-4 The Lamar-Dixon Expo Center in Gonzales, Louisiana, where hundreds of lost animals were sheltered and cared for in the wake of Hurricane Katrina

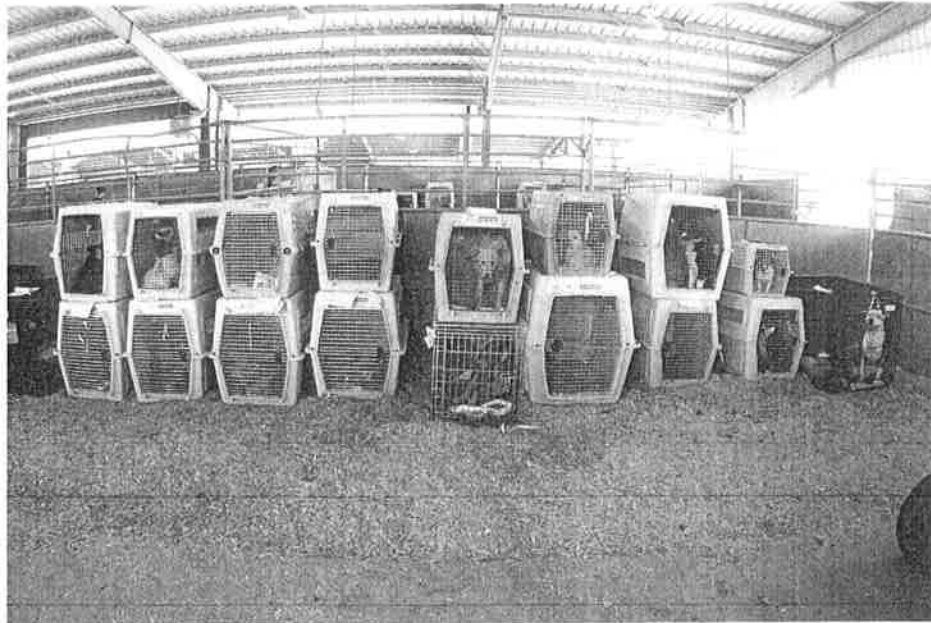


Photo courtesy of FEMA/Liz Roll

Disaster policy tends to focus on the most recent catastrophic event: hence, the ongoing preoccupation with 9/11 and Katrina, and the particularly careful efforts to identify lessons learned in these two disasters. Although one of the supposed lessons of Katrina is that people are reluctant to evacuate if it means leaving their pets behind, this did not come as a surprise to professional emergency managers. Common wisdom in the field has long held that many residents will refuse to evacuate if they have to leave their pets—and, as noted earlier in this chapter, survey data support this belief. But while the television images of dogs and cats in flooded homes were profoundly disturbing to many Americans, the fact is that enlightened emergency shelter programs already provide animal shelters to accommodate pets (see Figure 16-4). The Safety of Animals in Disasters Act—sometimes referred to as the “no pets left behind” act—requires animal facilities in or near emergency shelters and is changing the design of sheltering programs. Apparently, the lesson was learned, although providing shelter for animals will not be an easy task, given the number of pet owners in the United States.

Katrina also drew attention to the impact of disaster on the most vulnerable members of society, including those with chronic illnesses. Shelters were filled with people who had left their homes without their medications; some died as a result. Work is under way to ensure that such tragedies are not repeated. For example, programs are being developed to make contingency contracting easier so that local governments can ensure continuation of essential services.

The future of emergency management

A number of issues will be crucial to emergency management in the coming years; the next five sections highlight some of the most important: the need for comprehensiveness and balance in loss-reduction programs; the expansion of local capacity; response frameworks; the evolving profession; and managing in a networked world.

Comprehensiveness and balance

Comprehensive emergency management emphasizes both all-hazards management and the reduction of losses during all four phases of the disaster cycle: mitigation, preparedness, response, and recovery. As noted earlier, during the 1980s and 1990s the field of emergency management made significant progress toward addressing all four phases in a balanced fashion. Since the attacks of September 11, 2001, however, mitigation and recovery have taken a back seat to programs that emphasize preparedness and response. Despite the passage of the

Disaster Mitigation Act of 2000, the best way for state and local governments to receive mitigation funding is to experience a disaster and then apply for post-disaster mitigation funds. Investments in mitigation are being neglected even in the aftermath of Hurricane Katrina and despite a congressionally mandated five-year-long study demonstrating that federal investment in mitigation reduces disaster losses, both for the federal treasury and for the nation at large.²³ Just as preserving health is a more balanced and effective strategy than curing disease, avoiding and reducing disaster losses is better than continually paying for them. Unless the nation and the emergency management profession commit to and invest in strong pre-event loss-reduction programs, losses will continue to escalate.

Similarly, the nation and the profession must focus on and invest in short- and long-term disaster recovery strategies for communities, households, and businesses. The post-Katrina recovery in the Gulf Coast region reveals the complexity of disaster recovery processes, the almost insurmountable challenges associated with recovering from catastrophic events, and the nation's glaring lack of attention to post-event recovery policies and strategies. Plans and programs are needed to facilitate disaster recovery, disaster resistance, and disaster resilience simultaneously. And the time for developing such strategies is not when disaster strikes; pre-disaster planning for post-disaster recovery is an essential element in a comprehensive, balanced approach to emergency management.

Expanding local capacity

One of the lessons of Hurricane Katrina, and of the 2004 hurricane season in Florida, is the value of building local and regional capacity through mutual aid agreements. Almost 66,000 people from forty-eight states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands were deployed to support response and recovery efforts in Louisiana, Mississippi, and Alabama. The mutual aid process worked best in states that had a statewide mutual aid compact, some experience with the Emergency Management Assistance Compact (EMAC), or both, and was a success in all three of the recipient states (although Alabama needed far less assistance than Louisiana and Mississippi). Statewide mutual aid compacts, EMAC, and programs such as the National Emergency Management Network (NEMN) can greatly increase the capacities of communities to deal with disasters.²⁴ The ability to share resources among municipalities and counties nationally greatly expands local and state surge capacities.²⁵ The keys to the success of EMAC and similar mutual aid programs are short request forms, clear resource categories and definitions, quick bidding and negotiation processes, and legal protections for those who are deployed. Precertified emergency response teams, support units, and other resources can speed the process of requesting assistance, negotiating terms, and deploying personnel and equipment.²⁶ Mutual aid arrangements can also reduce dependence on federal resources, although federal monies are generally required to reimburse donors. NEMN operates in much the same way as EMAC, and can be linked to the EMAC request procedure.

Mutual aid has long been common practice among local governments in such areas as law enforcement and fire services, but it is becoming more common in emergency management and other areas. During the Katrina disaster, for example, Florida communities provided assistance to communities in Mississippi without formal mutual aid agreements. The use of recovery strike teams in the wake of Katrina is another example (see sidebar on pages 328–329). As states, and organizations such as ICMA, step in to help address the legal and financial issues that arise with mutual aid, ad hoc arrangements are giving way to more formal agreements.

Response frameworks

The Incident Command System (ICS), unified command, multiagency coordination system, and the National Incident Management System (NIMS) provide a common terminology and set of organizational structures to deal with disaster. The fire service has almost four decades of experience with ICS—and, because NIMS is based on ICS, emergency management, disaster relief, and emergency response agencies at all levels of government are required to be proficient in the use of ICS. Standardizing the language used in an incident, and clearly delineating the roles and authority of the personnel who are involved in disaster response, greatly simplifies communication and ensures unity of command—assuming that all participants under-

Recovery strike teams

For William Whitson, who at that time was assistant city manager in Port Orange, Florida, and now is city manager of Cairo, Georgia, the feelings stirred by news coverage of Katrina were personal. He remembers seeing a picture in the *Pensacola News Journal* of a woman standing in what used to be downtown Long Beach, Mississippi, the city where he'd lived about a decade earlier. "I recognized, oddly enough, where she was," he said. "She was crying and there was just debris everywhere around her, and I said, 'This can't be.' It looked like something you'd see in Bangladesh."

"It really hit home," he added. "I said, 'I'm a professional. We've got to get in this fight. We can't just sit back and let this happen.'"

Whitson had a powerful ally in Port Orange city manager Ken Parker, who'd spent years developing an informal network for disaster recovery assistance within Florida. After Whitson showed Parker the newspaper photo, the two immediately got to work building support from their mayor and city council for plans to help Long Beach. But they also looked beyond Port Orange.

They knew the job would require far more than one city's assistance, so they started talking to Lee Feldman, city manager of Palm Bay; Frank Roberts, the former city manager of New Smyrna Beach; and other Florida managers they'd worked with on disaster aid. And by September 10, less than two weeks after Katrina made landfall on the Gulf Coast, the first Florida team was on the ground in Long Beach, assessing the city's needs. With strong support from their governing bodies, this same coalition of Florida cities ended up sending dozens of staff members and some elected officials to help their counterparts in Long Beach and two other Mississippi cities.

Soon after they started working in Long Beach, they heard about Pass Christian, a nearby Mississippi town that had been completely wiped out by Katrina, and they launched a parallel effort there. Then, in the fall of 2006, the group responded to a call for help from ICMA and the city of Pascagoula, Mississippi, which was struggling with longer-term recovery challenges related to everything from inspections and code enforcement to public relations.

Fannie Mae officials had been working with Pascagoula and, after discussions with city officials, realized the need for additional staff, so they contacted ICMA to consider solutions. The two organizations quickly made plans, with Fannie Mae offering to cover the cost of sending teams of Florida professionals to Pascagoula in the fall and ICMA agreeing to organize the effort by working with the Florida Municipal League and the Florida City and County Management Association.

The Florida teams ended up spending a combined total of four weeks helping their peers in Pascagoula catch up on a huge backlog of work. The list included building permits and insurance paperwork, a survey of residents about their needs, grant writing, and many other critical tasks. After the hurricane, Pascagoula issued more than 7,500 building permits to repair and rebuild damaged homes and other structures.

The Florida response in Mississippi marked the beginning of what is fast evolving into a concerted effort to formalize the concept of coordinated disaster recovery assistance by local governments, a concept the Florida managers call "recovery strike teams."

stand, and are willing to follow, the incident management guidelines. Nevertheless, questions remain about whether ICS is scalable—that is, whether it can work in very large, multiorganizational, intergovernmental, and intersector operations—and whether it is flexible enough to deal with rapidly changing situations.²⁷

Among the other issues associated with ICS are a lack of compatibility between ICS and the decision-making processes of emergency response and disaster-relief organizations. For example, U.S. Army after-action reports on wildfire operations have criticized ICS because it does not fit the military's "battle rhythm."²⁸ Public health officials have complained about ICS because their decision processes tend to be more collegial—and, therefore, much slower—than those that are called for in ICS, and speeding up decision making can have significant negative consequences in the public health arena. Finally, many of the organizations that respond to disasters have nonhierarchical structures and rely on informal and consensual decision making; they are simply not interested in bureaucratic processes. Thus, emergency managers need tools to facilitate coordination and collaboration with organizations and entities whose structures and decision-making processes differ from their own. One of the

Parker, Feldman, and Roberts, who has since retired, had developed their own networks of support in the years since Hurricane Andrew devastated South Florida. They had forged strong relationships with peers in cities and counties across the state, and had done the planning to be sure that each would be prepared to respond with assistance if any of them was devastated by a hurricane or other disaster.

Whitson described it as similar to the way things have worked for years with police and fire rescue services: local governments lend personnel and equipment to help an affected community during an emergency. Typically, they send people in rotations to help with various aspects of disaster response, and they adjust plans and assignments as needed. "We're using the same template, the same organizational approach and just applying it to the long-term recovery," he said. The help of other municipal and county staff can be vital, he added, once a community gets to long-term recovery tasks.

"You're talking about a massive, massive effort. The recovery strike teams are meant to customize or mirror the delivery of [local government] services in any community," Whitson said. "They pick up garbage and send out water bills in Iowa. Whether you do it in Mississippi or do it in Iowa doesn't make much difference. That's the beauty of the model."

In the summer of 2006, Whitson and Parker took steps toward formalizing a local government role in recovery assistance when they briefed former governor Jeb Bush on their work in Long Beach and Pass Christian. Bush was impressed enough with the idea that he encouraged them to move forward in establishing teams across the state and finding a way to incorporate them into Florida's emergency management system. Last fall, Whitson, who became city manager of Cairo, Georgia, in January 2007, worked with Parker, Feldman, and others to set up the first teams in some of Florida's emergency response districts. In addition to designating team leaders and coordinators for each of four district strike teams, they identified a state coordinator who would work out of the state's emergency operations center.

Along with ensuring that the teams are trained and ready to deploy, their goal is to establish teams in the remaining emergency districts as soon as possible and ensure that all of the necessary information is available. "We want the system to be so transparent that people at the state level will know that these resources are there," Parker said of the strike team concept and any effort to build a national model. "They could be moving within hours, instead of days."

Building on what they learned through the hurricane season of 2004 as well as during Katrina, these local government managers now are working with the state to formally establish a network of recovery strike teams in different regions of Florida. And they're exploring the prospects for starting something similar on a national level. "This is where we should be going," Parker said of the strike team concept, adding that it could be expanded into a national model. The most important thing the Florida teams learned from Katrina, he noted, was the urgency of creating such networks. "It has moved us from just talk to action," he said. "We were doing it in an informal manner here in Florida, but it was largely based on personal relationships. What we've found is that it's time to go beyond that."

Source: Adapted from Christine Shenot, "Lessons Learned in Mississippi," *Public Management* (April 2007): 6-8.

critical roles of emergency management is getting the pieces to fit together—ensuring that conflicts arising from different organizational cultures do not interfere with cooperation and collaboration.

The national emergency management system includes complex networks of public, private, and nonprofit organizations; nongovernmental organizations; and volunteers. The networks are diverse, and communication—let alone collaboration—can be very difficult. Integrating volunteer organizations, faith-based organizations, for-profit organizations, and others into one unified effort can be a monumental task. Poor cultural interoperability complicates multiorganizational, intergovernmental, and intersector operations. At the extreme, clashes between centralized military organizations and decentralized civilian organizations are common, despite efforts on the part of the U.S. Department of Defense to build partnerships and find common purpose. When the warm and fuzzy meets the lean and mean, cultures and personality types clash, and differences can be hard to overcome. The attempt to impose control can be counterproductive in a system in which resources are dispersed, authority is shared, and responsibility needs to be shared.²⁹

Equally important is the fact that ICS and NIMS are directed more toward solving tactical, operational, and management challenges than toward strategic and policy concerns. As in other domains, such as war and international politics, the mastery of the nuts and bolts of crisis management is no substitute for wise strategic decision making and good policy. Indeed, the most critical decisions made during disasters typically take place outside (and often far above) NIMS structures. Examples of high-level decisions that ICS and NIMS do not address include whether to order the mandatory evacuation of a major American city, whether to begin pre-positioning resources in advance of an impending disaster, whether to declare a particular disaster an incident of national significance or catastrophe, whether syndromic surveillance data warrant informing the public about a potential pandemic or bioterrorist attack, and how to balance conflicting priorities in the midst of a crisis. These are not the kinds of dilemmas that NIMS can solve. No matter how much NIMS training first responders receive, efforts at responding to large-scale and catastrophic disasters will fail unless the nation's elected and appointed leaders have the knowledge and experience—and the courage—to make well-informed decisions at policy and strategic levels before, during, and after disasters.

The evolving profession

A number of chapters in this volume address the growing professionalization of the emergency management field: among the examples of this shift are the Certified Emergency Manager program, the many state certification programs, and the increasing number of other programs awarding certificates or academic degrees. Such programs are all the more important because of the transition that is going on in the public service: at all levels of government, a large—and growing—percentage of employees is eligible for retirement.³⁰ The two likely effects are loss of institutional memory and a shortage of experienced personnel. Although entry-level emergency management staff are more and more likely to have education and training in the field, their experience will be minimal.

Today's emergency manager needs an understanding of disaster research and of emergency response, and should be able to draw on a knowledge base that includes sociology, political science, geography, economics, public health, and other disciplines. The emergency manager's task environment also requires familiarity with politics, public policy, economics, environmental science, and, particularly with reference to terrorism, international affairs. Despite the broad familiarity with other fields that is required, however, emergency management is fundamentally public administration: it involves providing leadership for a public, nonprofit, or private agency; managing human and financial resources; engaging in strategic planning; organizing offices and emergency operations centers; evaluating programs; negotiating contracts and labor agreements, and other tasks. Just as education and training have become essential in other local government fields, more and more emergency managers are specialists with certificates, degrees, or both.

In a small community, the emergency manager may be a volunteer, a part-time employee, or an employee—such as a firefighter, a public safety officer, or a public works manager—who has other responsibilities. However, this situation is now changing. Particularly as the members of the baby boom generation retire, even smaller local governments are finding that they need professional emergency managers to deal with the risks that their communities face.

According to Wayne Blanchard, director of FEMA's Higher Education Project, the emergency manager of the past

- Spent his or her entire career in one jurisdiction
- Came to emergency management as a second or third career
- Was often a part-time employee, a volunteer, or an employee who "wore other hats"
- Used a hazard-based approach and was oriented primarily to disaster response
- Had minimal access to policy makers and was unlikely to belong to professional associations
- Was not well paid and did not work in a well-funded agency or office.

By contrast, today's emergency managers

- Tend to be younger, college educated (increasingly with degrees in emergency management), and from more diverse career backgrounds
- Choose emergency management as their first career
- Are geographically mobile
- Have a broader knowledge base, and better analytical and communications skills
- Are more adept with technology
- Are lifelong learners
- Are more oriented toward comprehensive emergency management
- Are better paid and work in better-funded agencies
- Have a broad range of working contacts, including elected and appointed officials, developers and others in the business community, academics and researchers, professional organizations, and community-based organizations.³¹

In short, the new manager comes to the position with a broader range of skills, a wider perspective, and higher expectations of his or her role in, and value to, the community. The emergence of the "new" emergency manager explains the popularity of emergency management academic programs, and the pressure to clarify just what it means to be a professional in the field.

It is important to note that whatever their education and experience, emergency managers still have to deal with the nitty-gritty of disaster management. For example, pragmatic solutions may raise ethical issues. Following recent hurricanes, it was suggested that by facilitating the reopening of big-box retail stores, communities could provide a major distribution point for food, water, ice, and other essential resources. But restoring utilities and clearing debris in order to enable a big-box retailer to reopen means delaying addressing the needs of other area businesses and homeowners. Moreover, assisting a large retail facility may indirectly harm smaller, family-owned businesses in the area. Such actions raise questions that would perhaps best be answered in a community meeting or before the local governing body, as part of the pre-disaster emergency planning process. There will not be time to debate such issues in the middle of the disaster response.

Conclusion: Local emergency management in a networked world

One of the themes running throughout this volume is that the social, political, and administrative world in which emergency managers operate is made up of networks. Public, private, and nonprofit organizations are the most visible elements in the political and administrative environment; volunteer organizations and individual volunteers, although less visible, are nevertheless critical to increasing the surge capacity of local, state, and national emergency management systems. Working within a networked environment requires new approaches to management and leadership. Collaboration is essential. Flexibility is essential. Classic command-and-control structures and processes are often ineffective. As Admiral Thad Allen, of the U.S. Coast Guard, observed, dealing with the effects of Hurricane Katrina called for "unity of effort," not "unity of command."³²

Emergency management, like any complex undertaking, requires leaders who are "bridge builders"—who can bring together disparate organizations and help them find a common purpose.³³ The critical skill for an emergency manager is the ability to collaborate effectively.³⁴ The critical task is to sell emergency management to the community: to help elected officials and the public understand the importance of emergency management and the value that it adds. The critical objective is to increase resilience so that the community can deal with disaster and recovery quickly. To accomplish the critical task and to achieve the critical objective, emergency managers must cultivate respect and attention. They must work with other officials to promote mitigation and preparedness, and to organize response and recovery. It is essential for policy makers to understand the role and function of emergency management, and to respect emergency managers' expertise.

Figure 16-5 The center of Greensburg, Kansas, twelve days after being hit by an F5 tornado with 200-mph winds on May 4, 2007



Photo courtesy of FEMA/Greg Hanshall

One of the goals of this volume is to serve as a resource for local officials, so that they can better understand emergency management and can make the best use of the resources it offers.³⁵ All public officials are responsible for protecting life and property. A little education can generate support and facilitate interaction. Although being involved in politics makes some emergency managers uneasy, it is essential if communities are to effectively mitigate, prepare for, respond to, and recover from disaster.

We live in an era of government accountability, and local emergency managers will be held responsible for protecting the residents of their communities. The standards against which their work will be evaluated are based on effectiveness and efficiency. Thus, local emergency managers must focus their attention on the hazards they see, and on the disasters that are most likely to occur in their communities (see Figure 16-5). For managers to do otherwise would be a failure of responsibility and a breach of ethics.

Notes

- 1 William A. Anderson and Shirley Mattingly, "Future Directions," in *Emergency Management: Principles and Practice for Local Government* (Washington, D.C.: ICMA, 1991), 331-335.
- 2 Ironically, a report on the increasing poverty in the United States was issued on the day that Katrina drew attention to the problem in New Orleans; see Carmen DeNavas-Walt, Bernadette D. Proctor, and Cheryl Lee Hill, "Income, Poverty, and Health Insurance Coverage in the United States: 2004," *Current Population Reports* P60-229 (Washington, D.C.: Bureau of the Census, U.S. Department of Commerce, August 2005), available at census.gov/prod/2005pubs/p60-229.pdf (accessed August 16, 2007). The Census Bureau's press release on the report was issued on August 30, 2005, the day after Katrina made landfall and as the media began reporting conditions in New Orleans.
- 3 Robert J. Blendon et al., "Hurricane Preparedness in High-Risk Areas, June 18-July 10, 2007" (Cambridge, Mass.: Project on the Public and Biological Security, Harvard School of Public Health, 2007).
- 4 See, for example, Raymond J. Burby, "Hurricane Katrina and the Paradoxes of Government Disaster Policy: Bringing about Wise Governmental Decisions for Hazardous Areas," *Annals of the American Academy of Political and Social Science* 604, no. 1 (2006): 171-191.
- 5 Charles Perrow, *The Next Catastrophe: Reducing Our Vulnerabilities to Natural, Industrial, and Terrorist Disasters* (Princeton, N.J.: Princeton University Press, 2007).
- 6 Richard T. Sylves, "Why Revolutionary Change Is Needed in Emergency Management" (paper presented at the Eighth Annual Emergency Management Higher Education Conference, Emmitsburg, Md., June 7-9, 2005).
- 7 NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs, 2007 Edition (Quincy, Mass.: National Fire Protection Association, 2007). Emergency managers have generally considered disaster prevention a part of mitigation; in homeland security parlance, however, prevention refers to counterterrorism: anticipating and precluding attacks.
- 8 Emergency Management Accreditation Program (EMAP), *Emergency Management Standards by EMAP* (Lexington, Ky.: EMAP, August 2007), avail-

- able at emaponline.org/?342 (accessed September 23, 2007).
- 9 William L. Waugh Jr., "Terrorism as Disaster," in *Handbook of Disaster Research*, ed. Havidán Rodríguez, E. L. Quarantelli, and Russell R. Dynes (New York: Springer, 2007), 388-404.
 - 10 William L. Waugh Jr., "The Political Costs of Failure in the Responses to Hurricanes Katrina and Rita," *Annals of the American Academy of Political and Social Science* 604, no. 1 (2006): 10-25.
 - 11 Ibid.
 - 12 See, for example, Linton Wells and Charles Hauss, "Odd Couples: The DoD and NGOs," *PS: Political Science and Politics* 40, no. 3 (2007): 485-487.
 - 13 Kathleen Tierney and Christine Bevc, "Disaster as War: Militarism and the Social Construction of Disaster in New Orleans," in *The Sociology of Katrina: Perspectives on a Modern Catastrophe*, ed. David L. Brunsma, David Overfelt, and J. Steven Picou (Lanham, Md.: Rowman and Littlefield, 2007).
 - 14 See, for example, Waugh, "Terrorism as Disaster."
 - 15 K. Qureshi et al., "Health Care Workers' Ability and Willingness to Report to Duty during Catastrophic Disasters," *Journal of Urban Health* 82, no. 3 (2005): 378-388.
 - 16 See, for example, Kathleen Tierney, "Metaphors Matter: Disaster Myths, Media Frames, and Their Consequences in Hurricane Katrina," in *Annals of the American Academy of Political and Social Science* 604, no. 1 (2006): 57-81; and David A. McEntire, *Disaster Response and Recovery* (Hoboken, N.J.: John Wiley & Sons, 2007), 65-74.
 - 17 Ibid.
 - 18 Norris R. Johnson, "Panic and the Breakdown of Social Order: Popular Myth, Social Theory, Empirical Evidence," *Sociological Focus* 20, no. 8 (1987): 171-183; William E. Feinberg and Norris R. Johnson, "The Ties That Bind: A Macro-Level Approach to Panic," *International Journal of Mass Emergencies and Disasters* 19, no. 3 (2001): 269-295; and Lee Clarke, "Panic: Myth or Reality?" *Contexts* 1, no. 3 (2002): 21-26, available at contextsmagazine.org/content_sample_v1-3.php (accessed September 23, 2007).
 - 19 Some "high-end" users want information in every conceivable form, from statistics to satellite images to estimations of probabilities.
 - 20 Thomas A. Birkland, *Lessons of Disaster: Policy Change after Catastrophic Events* (Washington, D.C.: Georgetown University Press, 2006).
 - 21 William L. Waugh Jr., *Terrorism and Emergency Management* (New York: Marcel Dekker, 1990).
 - 22 Amy K. Donahue and Robert V. Tuohy, "Lessons We Don't Learn: A Study of the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them," *Homeland Security Affairs* 2, no. 2 (2006), available at hsaj.org/pages/volume2/issue2/pdfs/2.2.4.pdf (accessed September 23, 2007).
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 - 24 For more information on the National Emergency Management Network, see its Web site at nemn.net (accessed September 23, 2007).
 - 25 William L. Waugh Jr., "EMAC, Katrina, and the Governors of Louisiana and Mississippi," *Public Administration Review*, Special Issue on Katrina (forthcoming, December 2007); William L. Waugh Jr., "Mechanisms for Collaboration in Emergency Management: ICS, NIMS, and the Problem of Command and Control," *The Collaborative Manager*, ed. Rosemary O'Leary (Washington, D.C.: Georgetown University Press, forthcoming 2008).
 - 26 Robert J. O'Neill Jr., "A New Model for Disaster Response," *Management Insights*, August 16, 2006, available at governing.com/mgm_insight.aspx?id=3234 (accessed September 23, 2007).
 - 27 See Waugh, "Mechanisms for Collaboration."
 - 28 See, for example, 20th Engineer Battalion (Mechanized), 1st Cavalry Division, "2000 Wildland Fire Support After Action Review" (2000).
 - 29 William L. Waugh Jr., "Hurricane Katrina and Cultural Interoperability" (paper presented at the American Society for Public Administration National Conference, Washington, D.C., March 23-27, 2007); and William L. Waugh Jr., "Organizational Culture, Communication, and Decision-Making: Making Multi-Organizational, Inter-Sector and Intergovernmental Operations Work" (paper presented at the National Conference on Catastrophic Care for the Nation, National Disaster Medical System, Atlanta, Ga., April 13-17, 2002). See also O'Neill, "A New Model for Disaster Response."
 - 30 The impact of retirements is already being felt in the federal government. At the time of this writing, the U.S. Department of Homeland Security, including the Federal Emergency Management Agency (FEMA), was significantly understaffed to the point that Congress was investigating to find out why senior positions had not been filled. Similarly, half or more of the employees in many local and state civil service systems were eligible for—or very close to—retirement. Federal agencies had noted "brain-drains" due to retirements.
 - 31 B. Wayne Blanchard, "The Emergency Management Higher Education Project" (Emmitsburg, Md.: Emergency Management Institute, FEMA), available at training.fema.gov/emiweb/edu (accessed September 23, 2007).
 - 32 James Kitfield, "New Coast Guard Chief Discusses Lessons Learned from Katrina," *GovExec.com*, June 2, 2006, available at govexec.com/story_page.cfm?articleid=34234&dcn=todaysnews (accessed September 23, 2007).
 - 33 Donald F. Kettl, *System under Stress: Homeland Security and American Politics*, 2nd ed. (Washington, D.C.: CQ Press, 2007), 143.
 - 34 William L. Waugh Jr. and Gregory Streib, "Collaboration and Leadership for Effective Emergency Management," *Public Administration Review* 66, Special Issue on Collaborative Management (December 2006): 131-140.
 - 35 Guides are provided to other public officials, from governors to mayors, as well. See, for example, Ann Beauchesne, *A Governor's Guide to Emergency Management*, vol. 1, *Natural Disasters* (Washington, D.C.: National Governors Association, 2001), available at nga.org/cda/files/REPORTEMERGUIDE2001.pdf (accessed September 23, 2007); and National Emergency Management Association (NEMA), *If Disaster Strikes Today. Are You Ready to Lead? A Governor's Primer on All-Hazards Emergency Management* (Lexington, Ky: NEMA, n.d.), available at nemaweb.org/docs/Gov_Primer.pdf (accessed September 23, 2007).