



# Federal Evacuation Policy: Issues for Congress

**Bruce R. Lindsay**

Analyst in Emergency Management Policy

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## Summary

When government officials become aware of an impending disaster, they may take steps to protect citizens before the incident occurs. Evacuation of the geographic area that may be affected is one option to ensure public safety. If implemented properly, evacuation can be an effective strategy for saving lives. Evacuations and decisions to evacuate, however, can also entail complex factors and elevated risks. Decisions to evacuate may require officials to balance potentially costly, hazardous, or unnecessary evacuations against the possibility of loss of life due to a delayed order to evacuate.

Some observers of evacuations, notably those from New Orleans during Hurricane Katrina, claim evacuations pose unique challenges to certain segments of society. From their perspective, special-needs populations, the transit-dependent, and individuals with pets faced particular hardships associated with the storm. This, they claim, is because some evacuation plans, and the way in which they were carried out, appeared to inadequately address their unique circumstances or needs.

In responding to these challenges, then-Senator Obama introduced S. 1685 in the 109<sup>th</sup> Congress, which would have directed the Secretary of Homeland Security to ensure that each state provided detailed and comprehensive information regarding its pre-disaster and post-disaster plans for the evacuation of individuals with special needs in emergencies. President Barack Obama indicated during his campaign that he would continue to pursue similar evacuation policies.

Another facet of evacuation is sheltering displaced individuals. For short-term sheltering, federally provided resources include food, water, cots, and essential toiletries. When displaced individuals need long-term sheltering, federal policy provides financial assistance for alternative accommodations such as apartments, motels and hotels, recreational vehicles, and modular units.

While federal law provides for certain aspects of civilian emergency evacuation, evacuation policy generally is established and enforced by state and local officials. In recent years, Members of Congress have focused, in part, on policy options that addressed issues of equity during evacuations as well as attempts to integrate federal, state, and local evacuation efforts more fully.

This report discusses federal evacuation policy and analyzes potential lessons learned from the evacuations of individuals in response to the Gulf Coast hurricanes of 2005. Several issue areas that might arise concerning potential lawmaking and oversight on evacuation policy are also highlighted. This report will be updated as significant legislative or administrative changes occur.

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## Introduction

Threats of impending disasters—such as hurricanes, floods, volcanic eruptions, the movement of airborne hazardous material, or unstable conditions at nuclear power plants—may provide officials an opportunity to save lives by encouraging or mandating civilian evacuation. Evacuation has three basic components. First is the departure of people from a stricken or threatened area. Second are the temporary resettlement of evacuees, and the provision of shelter and resources to them. Third is the final return of evacuees to either their predisaster residences or alternative locations.

Moving a population out of harm's way through evacuation can save lives and substantially reduce exposure to hazards. Evacuations, however, can create complex challenges for officials and emergency managers. For instance, officials need to time the evacuation accurately to ensure the impending disaster does not occur while people are evacuating. Evacuations can also be hazardous. According to some reports, more people died during the Hurricane Rita evacuation than from the actual hurricane.<sup>1</sup> Officials also need to take into account individuals who lack adequate transportation or have special needs because these individuals generally require more time to prepare to evacuate and travel out of the area. In such cases, it may be safer to have the special-needs population remain in the area and “shelter in place.”<sup>2</sup>

Over the years, congressional concern regarding the equity, timing, and execution of evacuations has increased. Much of this concern is attributable to the New Orleans evacuation during the 2005 hurricane season, which has spurred numerous changes in federal evacuation policy.

## Examples of Federal Evacuation Policy

In general, federal policy defers to the states to enact laws pertinent to evacuation.<sup>3</sup> Using authority from state laws and local ordinances, state and local officials may suggest or require the evacuation of residents from homes and communities before certain catastrophes occur.<sup>4</sup> Rather than taking the lead in evacuations, the federal government facilitates the evacuation process through federal statutes that authorize agency heads to use federal resources to assist in the evacuation of civilians. Brief descriptions of four federal authorities follow.

### *Stafford Act: Pre-Hurricane Katrina*

The Robert T. Stafford Disaster and Relief Emergency Assistance Act (hereafter the Stafford Act) authorizes the President to direct the Secretary of Defense to use resources to perform necessary emergency work to preserve life and property. This may take place even before the President issues a major disaster or emergency declaration.<sup>5</sup> The President may also issue the declaration

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<sup>1</sup> “In Texas, Governor Orders Improvements to Evacuation Plans,” *New York Times*, March 22, 2006, at <http://www.nytimes.com/2006/03/22/national/22texas.html>.

<sup>2</sup> “Shelter in place” refers to taking protective measures while remaining in the affected area.

<sup>3</sup> The **Appendix** to this report identifies selected federal statutory citations that appear to be most pertinent to domestic evacuation. This report does not comprehensively review all federal evacuation policies, nor does it review state and local evacuation policies.

<sup>4</sup> State laws generally authorize governors to order and enforce the evacuation of residents under emergency situations.

<sup>5</sup> 42 U.S.C. 5170b(c). For further analysis on presidential declaration authority, see CRS Report RL34146, *FEMA's* (continued...)

before the incident to lessen or avert the threat of a catastrophe by providing assistance for “precautionary evacuations.”<sup>6</sup>

### ***Stafford Act: Post-Hurricane Katrina***

As mentioned previously, the final component of an evacuation is the return of evacuees to their predisaster residences or, if needed, to alternative locations. As amended by the Post Katrina Emergency Management Reform Act of 2006 (hereafter the Post Katrina Act),<sup>7</sup> Section 425 of the Stafford Act states that the President may provide transportation assistance to “relocate individuals displaced from their predisaster primary residences as a result of an incident ... or otherwise transported from their predisaster primary residences ... to and from alternative locations for short or long-term accommodation or to return an individual or household to their predisaster primary residence or alternative location, as determined by the President.” Under this authority the role of the federal government has been expanded not only to assist in the removal of citizens, but also to return disaster victims, or to relocate them. Limited information exists on the implementation of this relatively new authority for the return of evacuees to their predisaster residences. The issue of returning evacuees to their residences will be addressed later in the report.

### ***National Response Framework***

Another way in which the federal government facilitates evacuations is through assigning roles and responsibilities to various federal agencies, states and localities, and nonprofit organizations. The National Response Framework (NRF), administered by the Federal Emergency Management Agency (FEMA) and the Department of Homeland Security (DHS), establishes the roles and responsibilities of federal and certain non-federal entities when incidents overwhelm state or local governments. For example, the NRF identifies state, local, and tribal governments as having the responsibility of “ordering the evacuation of persons from any portions of the state threatened by the incident, giving consideration to the requirements of special-needs populations and those with household pets or service animals.”<sup>8</sup>

The NRF includes “Incident Annexes,” which are documents that address specific hazard situations.<sup>9</sup> One of the annexes, the *Mass Evacuation Incident Annex*, assigns DHS and FEMA the responsibility for coordinating mass evacuations. With the support of other federal agencies and nonprofit organizations, the *Annex* also provides overall guidance for integrating the efforts of federal, state, local, and tribal governments during the evacuation of large numbers of people. According to the *Annex*:

Federal support to mass evacuation operations will be provided at the state/tribal level and scaled to the incident.... Regardless of the scale of the incident, coordination among

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(...continued)

*Disaster Declaration Process: A Primer*, by Francis X. McCarthy.

<sup>6</sup> 42 U.S.C. § 5192(a)(1).

<sup>7</sup> P.L. 109-295, § 601, 120 Stat. 1409.

<sup>8</sup> U.S. Department of Homeland Security, *National Response Framework*, January 2008, p. 39.

<sup>9</sup> There are seven Incident Annexes that accompany the NRF: Biological, Food and Agriculture, Mass Evacuation, Nuclear/Radiological, Catastrophic, Cyber, and Terrorism Incident Law Enforcement and Investigation.

numerous command entities will be required to carry out the major functions of evacuation operations.<sup>10</sup>

### *National Hurricane Program*

Established in 1985, FEMA's National Hurricane Program (NHP) helps protect communities from hurricane hazards through various projects and activities. The NHP also provides assistance to state and local agencies in developing hurricane evacuation plans. One of the ways this is achieved is through NHP's Hurricane Evacuation Studies (HES). HES helps states and localities determine the probable effects of a hurricane, identify appropriate shelters, and predict public response to a hurricane and hurricane advisories.<sup>11</sup>

NHP also conducts hazard and vulnerability analyses for coastal communities. Analyses include an assessment of a hurricane's impact, a review of existing roads and transportation systems, and an analysis of the population (e.g., demographic characteristics). The information gained from analyses helps communities determine evacuation zones (areas vulnerable to the hurricane), develop evacuation maps, and determine clearance times.

## **Evacuations: Lessons Learned**

### **General Lessons Learned from Evacuations**

Studies of evacuations have identified several techniques that can make evacuations more effective. For example, informing citizens about evacuation routes and shelter locations as part of a community preparedness activity can help reduce the amount of time a household takes to evacuate. Without this information, households are generally slow to react to an evacuation order.<sup>12</sup> Making provisions, such as gasoline, portable restrooms, and water, available along the route can also positively influence the effectiveness of an evacuation. Having tow trucks along egress routes to move vehicles can also help to keep the roads clear.<sup>13</sup>

The use of hazard analyses and evacuation analyses may produce a more effective evacuation. Hazard analyses are used to identify areas susceptible to a hazard's impact. Evacuation analyses assess the size of the affected population and its capability to transport itself. Additionally, evacuation analyses help identify modes of transportation to be used in the evacuation and potential evacuation routes.

These lessons were derived primarily from disasters and emergencies such as wildfires, hazardous material spills, and hurricanes that would not be categorized as large-scale or catastrophic incidents. The evacuations as a result of some of these incidents do not involve long-term displacement, or the need to evacuate a large population. Hurricanes Katrina and Rita, however, did offer lessons on large-scale evacuations.

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<sup>10</sup> U.S. Department of Homeland Security, *Mass Evacuation Incident Annex*, June 2008, p. 5.

<sup>11</sup> Information on the National Hurricane Program can be obtained at <http://www.fema.gov/plan/prevent/nhp/>.

<sup>12</sup> Ronald W. Perry, Michael K. Lindell, and Marjorie R. Greene, *Evacuation Planning in Emergency Management* (Lexington, MA: Lexington Books, 1981), p. 145.

<sup>13</sup> Ronald W. Perry and Michael K. Lindell, *Emergency Planning* (Hoboken, NJ: John Wiley and Sons, 2007), pp. 172-173.

## Lessons Learned from Hurricanes Katrina and Rita

Hurricanes Katrina and Rita increased knowledge of evacuations from large-scale incidents. Studies and reports covering the evacuations prompted by Hurricane Katrina also found techniques that make evacuations more effective.<sup>14</sup> In general, they stated that implementation of the evacuations of many of the individuals affected by Hurricane Katrina went relatively smoothly because of successful evacuation procedures. Some examples of these procedures include the use of traffic management techniques such as “contra-flow” (making the in-bound and out-bound lanes uni-directional), which proved to be very effective. The use of conference calls by emergency managers and traffic directors to coordinate evacuation efforts also produced positive results.

However, reports also asserted that other aspects of the evacuations needed significant improvement. The evacuations of New Orleans and Jefferson Parish were particularly troublesome. In fact, they were so problematic that they tended to negatively shape public perception of the evacuations as a whole.

One account that criticized the Hurricane Katrina and Rita evacuations said that the call to evacuate appeared to be “weak, bureaucratic, and confusing.”<sup>15</sup> Perhaps as a result of such criticisms, calls to evacuate during Hurricane Ike<sup>16</sup> used stronger language to convey the seriousness of the event. It is unclear, however, if stronger language was more effective than other factors in getting individuals to heed notices to evacuate. Another factor that influenced the way in which people were evacuated for Hurricane Ike was the experience of gasoline shortages and gridlock. In some disasters, a phenomenon known as “shadow evacuation” takes place. Shadow evacuations consist of individuals leaving the area without being told to do so. During the Hurricane Rita evacuation, non-mandated departures burdened evacuation routes and created fuel shortages. In Hurricane Ike, efforts such as persuading individuals in non-evacuation zones not to leave and asking families not to evacuate in multiple vehicles helped reduce shadow evacuations.<sup>17</sup>

The Hurricane Katrina evacuations also underscored the significance of timing an evacuation. According to one view, large metropolitan areas generally need 48 hours to evacuate (for Louisiana, the preferred minimum amount of time to conduct a major evacuation is 72 hours).<sup>18</sup> However, the earlier an evacuation is ordered, the greater the likelihood is that there will be an error in the weather forecast. The inability to predict a storm track compounds the difficulties of evacuation decision making.

In the case of Hurricane Katrina, evacuations were declared late, or not at all, in two of Louisiana’s most populous areas: New Orleans and Jefferson Parish. According to one

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<sup>14</sup> Examples include U.S. Congress, House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., H.Rept. 109-377 (Washington: GPO, 2006); U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., S.Rept. 109-322 (Washington: GPO, 2006); and Todd Litman, “Lessons from Katrina and Rita: What Major Disasters Teach Transportation Planners,” *Journal of Transportation Engineering*, vol. 132, no. 11 (January 2006).

<sup>15</sup> Douglas Brinkley, *The Great Deluge* (New York: HarperCollins, 2006), p. 59.

<sup>16</sup> Hurricane Ike made U.S. landfall on September 13, 2008.

<sup>17</sup> Interview of Mayor Bill White by Jim Lehrer on the PBS Newshour, aired September 11, 2008.

<sup>18</sup> Ivan Van Veen and Mike Brown, *The Storm* (New York: Viking, 2006), p. 47.

congressional report, a more complete evacuation of these areas could have saved lives and reduced human suffering.<sup>19</sup> Another congressional report concluded that the incomplete evacuation led to the need for a post-hurricane evacuation. Federal, state, and local officials had not anticipated the need for a second evacuation. As a consequence, problems in communication, lack of situational awareness, and a shortage of bus drivers resulted in poor implementation of the second evacuation.<sup>20</sup>

Economically disadvantaged individuals, those with pets, and special-needs populations<sup>21</sup> also experienced difficulty during the evacuations. Some households who wished to leave the area could not because of a lack of transportation. Special-needs populations were underserved because some were too frail for transport.<sup>22</sup> Others depended on service animals (animals that are trained to perform tasks for individuals with disabilities, such as guiding people who are blind, alerting people who are deaf, or pulling wheelchairs). Some of these individuals were helpless because their animals could not navigate flooded streets. Others elected not to evacuate because shelters had no provisions for their pets and they feared leaving their pets behind.

Much of the post-Hurricane Katrina legislation is directed at these problems. For example, some of the legislation enacted after Hurricane Katrina includes grants for states and localities to develop evacuation plans and ensure that these plans include provisions for special needs populations. Another example is legislation directed toward ensuring that evacuation plans address individuals with household pets and service animals. **Table A-1** in the **Appendix** to this report includes some of this legislation.

Finally, the House report<sup>23</sup> concluded that the responsibility to evacuate did not reside solely within the government. Many individuals were aware of the need to evacuate but chose not to do so. Some had waited out hurricanes in the past and believed they could do the same for Hurricane Katrina. Others simply failed to recognize the seriousness of the hurricane. Despite the severity of the event, the amount of evacuation planning that takes place, and the necessary resources at hand, there will always be individuals who choose to remain in the affected area.

## Potential Congressional Issues

During a review of issues related to evacuation, displacement, and sheltering policies, Congress might move to consider options for better integrating federal, state, and local efforts during evacuation. Congress might also review options that address issues of inequity or reform evacuation policy to make the decision to evacuate more precise, or take no action.

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<sup>19</sup> U.S. Congress, House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., H.Rept. 109-377 (Washington: GPO, 2006), p. 103.

<sup>20</sup> U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., S.Rept. 109-322 (Washington: GPO, 2006), pp. 594-595.

<sup>21</sup> Examples of special-needs populations identified in FEMA's *Interim Emergency Management Planning Guide for Special Needs Populations* (August 15, 2008) include individuals in need of additional response assistance, individuals with disabilities, individuals who live in institutionalized settings, elderly individuals, children, people from diverse cultures who have limited English proficiency or who are non-English speaking, and those who lack transportation.

<sup>22</sup> David M. Dosa, Nancy Grossman, Terrie Wetle, and Vincent Mor, "To Evacuate or Not to Evacuate: Lessons Learned from Louisiana Nursing Home Administrators Following Hurricanes Katrina and Rita," *Journal of the American Medical Directors Association*, vol. 8, no. 3 (March 2007), p. 147.

<sup>23</sup> U.S. Congress, House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., H.Rept. 109-377 (Washington: GPO, 2006), p. 113.



## Low-Income Individuals and Households

The Stafford Act stipulates that relief and assistance be provided “without discrimination on the grounds of ... economic status.”<sup>24</sup> FEMA has responsibility to provide for the evacuation of disaster victims and provide for evacuation as part of federal emergency preparedness efforts.<sup>25</sup> Congress might assess whether existing evacuation plans and procedures comport with the requirements of the Stafford Act, and whether other efforts are required to ensure that low-income individuals and households receive necessary aid.

## The Evacuation of Children<sup>26</sup>

Months after Hurricane Katrina struck, over 5,000 children from affected areas were reported as missing to the National Center for Missing and Exploited Children.<sup>27</sup> In response to the challenges of family reunification, the National Commission on Children in Disasters recommended developing a “standardized, interoperable, national evacuee tracking and family reunification system that ensures the safety and well-being of children.”<sup>28</sup> The Post-Katrina Emergency Management Reform Act<sup>29</sup> required FEMA to establish the National Emergency Family Registry and Locator (NEFRL) system and the National Emergency Child Locator Center to address family reunification needs in disasters. The act also required FEMA to establish a disability coordinator to ensure that the needs of individuals with disabilities in disasters are addressed.

Currently, there is no similar statutory provision for a coordinator for children in disasters. Congress might choose to consider establishing a coordinator within FEMA to ensure that the needs of children are addressed in the development and implementation of a national, standardized, and interoperable evacuee tracking and family reunification system.<sup>30</sup>

## Evacuating Foreign Nationals<sup>31</sup>

Foreign nationals living in the United States face particular problems during natural disasters. Lack of adequate documents for personal identification—a problem for many victims as a result of being evacuated from their homes or the loss of or damage to personal items and records—has specific consequences under immigration laws. Enforcement of immigration laws may also inhibit foreign nationals’ access to emergency disaster relief. According to §401 of the Personal

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<sup>24</sup> 42 U.S.C. 5151(b).

<sup>25</sup> 6 U.S.C. 314(a)(9)(C).

<sup>26</sup> This section was co-authored by Natalie Keegan, CRS Analyst in American Federalism and Emergency Management Policy.

<sup>27</sup> National Center for Missing and Exploited Children, “National Center for Missing and Exploited Children reunites last missing child separated by Hurricane Katrina and Rita,” press release, March 17, 2006, [http://www.missingkids.com/missingkids/servlet/NewsEventServlet?LanguageCountry=en\\_US&PageId=2317](http://www.missingkids.com/missingkids/servlet/NewsEventServlet?LanguageCountry=en_US&PageId=2317).

<sup>28</sup> National Commission on Children in Disasters, *Interim Report*, October 14, 2009, p. 76, at <http://www.childrenanddisasters.acf.hhs.gov/home.html>. The quote in the *Interim Report* is from 120 Stat. 1451, P.L. 109-295, § 689c.

<sup>29</sup> P.L. 109-295, § 601, 120 Stat. 1409.

<sup>30</sup> For further analysis on children and disasters see CRS Report R41080, *The National Commission on Children and Disasters: Overview and Issues*, by Natalie Keegan.

<sup>31</sup> This section was authored by Ruth Ellen Wasem, CRS Specialist in Immigration Policy.

Responsibility and Work Opportunity Reconciliation Act of 1996,<sup>32</sup> unauthorized aliens are eligible for short-term, in-kind emergency disaster relief assistance that delivers in-kind services at the community level, provides assistance without individual determinations of each recipient's needs, and is necessary for the protection of life and safety. Unauthorized aliens who are receiving federal disaster aid, however, have no immunity from deportation, according to DHS officials. In the aftermath of Hurricanes Katrina and Rita in 2005, many displaced aliens reportedly feared that seeking government help might lead to their deportation. DHS arrested, detained, and ordered deported an unspecified number of unauthorized aliens displaced by the 2005 hurricanes.<sup>33</sup> It is possible that this situation may inhibit those who fear deportation from evacuating, potentially placing these individuals at risk during catastrophic incidents. Congress might elect to review the relationship between evacuation policy and immigration policy.

### **Federal, State, and Local Integration**

In conjunction with DHS, the U.S. Department of Transportation issued a report entitled *Report to Congress on Catastrophic Hurricane Evacuation Plan Evaluation*. The report found that federal, state, and local emergency plans and operations for evacuations were not well integrated.<sup>34</sup> Congress could consider measures to improve jurisdictional integration.

### **Technology**

Congress might consider expanding FEMA grants for the research and development of technologies that could improve evacuation planning and decision making. Current advances in technology include the use of geographic information systems (GIS) to help emergency managers make more informed decisions regarding evacuations. Some of the ways in which GIS can be used are determining efficient evacuation routes and identifying and mapping areas containing populations who might have difficulty evacuating (e.g., nursing home residents, hospital patients, and non-English speaking groups). Recently, GIS and aerial photography were combined to create a real-time application called "Virtual Alabama." The program offers a panoramic view of the Alabama coastline, allowing emergency managers to direct assets and responders where they are needed most. The program also allows for real-time evacuation routing and vehicle and asset tracking.<sup>35</sup>

A citizen-evacuation system is also being developed that employs radio-frequency identification (RFID) and wireless technologies to help individuals during emergencies and disasters. When finished, the system should provide real-time information on evacuees to assist officials in

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<sup>32</sup> P.L. 104-193, 110 Stat. 2105.

<sup>33</sup> For further analysis, see CRS Report RL34500, *Unauthorized Aliens' Access to Federal Benefits: Policy and Issues*, by Ruth Ellen Wasem; CRS Congressional Distribution Memorandum, *Noncitizen Eligibility for Disaster-Related Assistance*, by Alison Siskin, February 15, 2002; and CRS Report RL33091, *Hurricane Katrina-Related Immigration Issues and Legislation*, by Ruth Ellen Wasem.

<sup>34</sup> U.S. Department of Transportation, in cooperation with the U.S. Department of Homeland Security, *Report to Congress on Catastrophic Hurricane Evacuation Plan Evaluation*, June 1, 2006, chapter 5, "Findings and Recommendations," at <http://www.fhwa.dot.gov/reports/hurricanevacuation/chapter5.htm>.

<sup>35</sup> Testimony of Alabama Department of Homeland Security Director James M. Walker, Jr., in U.S. Congress, House Committee on Homeland Security, Subcommittee on Management, Investigations, and Oversight, *Ready to Lead? DHS and the Next Major Catastrophe*, 110<sup>th</sup> Cong., June 11, 2008, at <http://homeland.house.gov/SiteDocuments/20080611154609-65973.pdf>.

tracking the evacuation of special-needs populations and tracking individuals to help reunite families after an emergency or a disaster. The system is also designed to help reduce the number of dangerous search-and-rescue operations that need to be conducted during and after disasters.<sup>36</sup>

Another example of an emerging technology might be a software tool that applies operations research methods to help emergency managers better decide whether and when to order evacuations.<sup>37</sup> Using operations research methods enables a modeler to identify bottlenecks in evacuations and predict problems and solutions for a complex evacuation situation. This tool might aid emergency managers in conducting evacuations more efficiently by clearing out inhabitants in stages. Software and other tools could also help planners optimize the location of relief supplies before a hurricane made landfall.<sup>38</sup> Congress could consider approaches for making such technology more readily available to state and local emergency managers, or fund further research in the area.

### **Re-entry into Evacuated Zones**

Evacuation policy may present difficult choices to inhabitants of hazardous areas. Whereas individuals who choose not to evacuate remain in their residences and retain access to their property, evacuees may not be granted reentry to their residences for prolonged periods of time. This tension may be problematic for the implementation of evacuation policy for at least two reasons. First, it creates a disincentive to evacuate and potentially places individuals at risk because some may be concerned about being absent from their property for a prolonged period. Second, it may create an inequity between those who evacuate and those who stay, because those who remain may be able to protect their property and begin the recovery process more quickly than those who evacuate. If this topic were of interest, Congress might explore options related to this tension. For example, Congress might create incentives for individuals to evacuate and create mechanisms to ensure a timely yet safe return to an evacuated area.

Many city and county codes require damaged residences to be inspected before individuals are allowed to re-enter their homes. After large disasters, however, there often is a lack of inspectors available for conducting inspections. If Congress addressed this concern, it might consider expanding the Stafford Act's Public Assistance program<sup>39</sup> to include programs that bring outside inspectors to an affected area to hasten the inspection process.

Additionally, Congress might choose to investigate evacuee expenditures for re-entry to determine if the matter warrants federal assistance such as grant assistance, small loans, and tax credits or deductions.

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<sup>36</sup> Michael Keating, "Texas Taps AT&T to Develop Emergency Evacuation and Notification Tool," *GovPro*, December 5, 2007, at <http://www.govpro.com/News/Article/76845/>.

<sup>37</sup> Operations Research applies mathematical modeling, statistics, probability queuing theory, decision analysis, and similar techniques to solve complex management problems.

<sup>38</sup> For example, see MIT News, *Saving Lives Through Smarter Hurricane Evacuations*, David Chandler, MIT News Office, August 28, 2008, at <http://web.mit.edu/newsoffice/2008/hurricanes-0828.html>.

<sup>39</sup> 42 U.S.C. 5172 § 406.

## **Citizen Participation in Evacuation Planning**

It has been argued that the success of an evacuation is significantly enhanced when citizens participate in evacuation planning. Citizens, according to this argument, are less likely to resist evacuation orders when there is increased citizen participation because they believe they had a say in how the evacuations should be conducted.<sup>40</sup> Congress might explore options for increasing citizen participation in state and local evacuation planning. Congress could also explore options to help state and local governments carry out evacuations or pass legislation that would help disseminate information to the public. Such options might increase citizen “buy-in” and could lead to more complete evacuations.

## **Evacuation Fatigue**

Hurricanes generally occur in close succession, which sometimes necessitates more than one evacuation. Under such circumstances, individuals may become “burned out” and reluctant to heed orders to evacuate. This was a concern for officials during Hurricane Ike; they stated that evacuation fatigue may have contributed to an incomplete evacuation. If Congress wished to address this issue, it could offer grants to universities and colleges to study evacuation fatigue and produce methods to increase citizen participation in evacuations, even when they occur in succession.

## **Returning and Relocating Evacuees**

In addition to removing people from a hazardous area, successful evacuation plans also address strategies for returning and relocating residents when it is safe for the area to be inhabited again. Section 425 of Post-Katrina Act amends the Stafford Act to provide transportation assistance to relocate displaced individuals to and from alternative locations for short- or long-term accommodation, or to return an individual or household to the predisaster primary residence, or an alternative location.

This amendment expands the role of the federal government beyond merely assisting states and localities in evacuations by authorizing the federal government to return evacuees to their predisaster residences. Furthermore, administering the return of evacuees raises issues that may involve oversight by Congress. If evacuees were flown out of the area, does the federal government cover the cost for return airfare? Or can the return of evacuees be accomplished with a less expensive mode of transportation such as a bus? Since the Hurricane Katrina evacuation, many individuals and households have purchased new furnishings and other belongings. Is the federal government responsible to pay for the return of these belongings? If so, the federal government may have to reimburse individuals and households for such items as moving vans and rental trucks. If individuals and households are not reimbursed for moving their belongings, some may not have the economic means to do so themselves.

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<sup>40</sup> Ronald Perry and Alvin Mushkatel, *Minority Citizens in Disasters* (Athens, GA: University of Georgia Press, 1986), p. 144.

On August 13, 2008, the National Advisory Committee (NAC)<sup>41</sup> stated that while it supports the return of disaster victims to their homes when transported by FEMA, NAC could not reach a consensus on how to proceed with the return policy and identified some concerns relating to the issue.<sup>42</sup> For one, NAC noted that providing transportation for evacuees back to their homes may prove to be difficult for FEMA to manage. Another concern was the clarity of the policy. NAC requested that FEMA establish clear guidance concerning the criteria for transportation assistance. Some might argue that such concerns indicate a need for congressional oversight. If this amendment proves costly or difficult to administer, Congress might elect to re-examine this policy.

## Concluding Observations

Prior to Hurricane Katrina, evacuations were primarily a state and local responsibility. Because of lessons learned from Hurricane Katrina, federal policy now establishes national standards. Federal legislation authorizing the return or relocation of evacuees was enacted after Hurricane Katrina. Also, Congress amended the Stafford Act to ensure that transportation-dependent groups are included in state and local evacuation plans. President Obama's platform of addressing the requirements of special-needs populations in evacuation policy may also deepen federal involvement.<sup>43</sup>

As the federal government becomes more involved in evacuations, there may be a fundamental shift in the roles and responsibilities of the various actors involved in evacuations. Federal assumption of more responsibility in evacuations creates standards and guidelines for states and localities to follow. While some may contend that this shift will save lives, others may argue that an increased federal role will intrude on state sovereignty, or result in an unfunded mandate.

As it currently stands, states and localities will have to increase planning, dedicate resources, and possibly shift priorities as they work to ensure that special-needs groups are not left out of evacuation plans. The identification of transportation-dependent groups is part of the evacuation process. According to Government Accountability Office (GAO) testimony, some emergency management officials did not have a good understanding of the size, location, and composition of the transportation disadvantaged in their communities.<sup>44</sup> Thus, Congress might elect to monitor how well states and localities are (1) identifying populations who may experience difficulty evacuating; (2) incorporating these groups into evacuation plans, and updating them periodically as demographic characteristics change; and (3) anticipating potential problems in their evacuation planning, rather than merely using the lessons learned from past failures.

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<sup>41</sup> The National Advisory Council (NAC) advises the Administrator of FEMA on all aspects of emergency management. NAC incorporates input from state, local, and tribal governments, as well as the private sector, in the development and revision of the national preparedness goal, the national preparedness system, the National Incident Management System, the National Response Framework, as well as other related plans and strategies. The Council is Authorized by Section 508 of the Homeland Security Act of 2002 (P.L. 107-296), as amended by Section 611 of the Post-Katrina Act, as set forth in the Department of Homeland Security Appropriations Act of 2007 (P.L. 109-295), which directs the Secretary of Homeland Security to establish the NAC. The NAC is established in accordance with and operates under the provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. App. (P.L. 92-463).

<sup>42</sup> Minutes from the National Advisory Council meeting in Washington, DC, held on August 13, 2008.

<sup>43</sup> Obama and Biden 2008 campaign website, at [http://origin.barackobama.com/issues/homeland\\_security/](http://origin.barackobama.com/issues/homeland_security/).

<sup>44</sup> United States Government Accountability Office, *Disaster Preparedness: Preliminary Observations on the Evacuation of Vulnerable Populations Due to Hurricanes and Other Disasters*, GAO/GAO-06-790T, May 18, 2006, p. 4.

## Appendix. Statutory Authority for Evacuations

**Table A-1** lists examples of evacuation-related statutes. Although the provisions address many issues, two prevalent themes are (1) integrating federal, state, and local evacuation efforts; and (2) addressing equity issues that may arise as a result of an evacuation.

**Table A-1. Selected Federal Evacuation Authorities<sup>45</sup>**

<b>General Federal Evacuation Policy</b>		
<b>Summary</b>	<b>Citation</b>	<b>Approved</b>
Federal employees and their dependents may receive federal assistance if they must evacuate.	5 U.S.C. §§ 5709, 5725	July 4, 1966
The need for a mass evacuation may meet the criteria for a catastrophic incident.	6 U.S.C. § 701(4)	Oct. 4, 2006
The role of the Federal Emergency Management Agency (FEMA) includes evacuating disaster victims.	6 U.S.C. § 314	Nov. 25, 2002
<b>Evacuation Preparedness</b>		
<b>Summary</b>	<b>Citation</b>	<b>Approved</b>
Emergency preparedness activities include non-military civilian evacuation of personnel during hazards.	42 U.S.C. § 5195a	May 22, 1974
National Construction Safety Teams (NCSTs) must evaluate technical aspects of evacuation procedures and recommend research.	15 U.S.C. §§ 7301, 7307-7308	Oct. 01, 2002
Emergency plans completed by local emergency planning committees (LEPCs) must include evacuation plans.	42 U.S.C. § 11003	Oct. 17, 1986
Owners of facilities where a hazardous chemical release occurs must provide information on precautions to be taken, including evacuation.	42 U.S.C. § 11004(b)(2)	Oct. 17, 1986
The Secretary of Transportation must establish incident response plans for facilities and vessels that include evacuation procedures.	46 U.S.C. § 70104(b)	Nov. 25, 2002
Congressional finding that private and public sector emergency preparedness activities should include evacuation plans.	P.L. 108-458, § 7305, 118 Stat. 3848	Dec. 17, 2004
The Director for Emergency Communications shall provide technical assistance to states and localities to develop evacuation plans.	6 U.S.C. § 721	Oct. 4, 2006
Amends the Stafford Act to ensure that state and local emergency preparedness operational plans address the needs of individuals with household pets and service animals following a major disaster or emergency.	42 U.S.C. § 5170b(a)(3)(j)	Oct. 4, 2006

<sup>45</sup> A recent statutory search of the Legislative Information System (LIS) system using the term “evacuations” revealed roughly 1,700 statutory provisions concerning some component of evacuation. Bonnie Mangan, Information Research Specialist in the CRS Domestic Social Policy Division, Knowledge Services Group, assisted with the compilation of this list.

<b>Special-Needs</b>		
<b>Summary</b>	<b>Citation</b>	<b>Approved</b>
All public transportation agencies that are deemed to be at high risk of a terrorist attack, as determined by the DHS Secretary, must include appropriate evacuation and communication measures for the elderly and individuals with disabilities.	6 U.S.C. § 1134(c)(2)(C)	Aug. 3, 2007
FEMA is responsible for supporting state, local, and tribal governments in creating operational plans for mass evacuations that include short- and long-term sheltering and accommodation. Operational plans must also contain provisions to help populations with special needs, keep families together, and expedite the location of missing children.	6 U.S.C. § 753(b)(4)(A)(i)(ii)(iii)	Oct. 4, 2006
The disability coordinator of a major disaster is responsible for promoting the accessibility of telephone hotlines and websites for the purposes of emergency preparedness, evacuations, and disaster relief.	6 U.S.C. § 321b(b)(6)	Oct. 4, 2006
FEMA is authorized to provide grants to states and localities through the State Homeland Security Grant Program, or the Urban Area Security Initiative, for the development and maintenance of mass evacuation plans, including provisions for individuals located in hospitals, nursing homes, and other institutional living facilities.	6 U.S.C. § 321a(a)(1) and (b)(4)	Oct. 4, 2006
FEMA is authorized to provide grants for states and localities to develop procedures for informing the public of an evacuation, including individuals with disabilities or other special needs, individuals with limited English proficiency, or others who might have difficulty interpreting evacuation information.	6 U.S.C. § 321a(b)(5)(a)(b)(c)	Oct. 4, 2006

## **Author Contact Information**

Bruce R. Lindsay  
Analyst in Emergency Management Policy  
blindsay@crs.loc.gov, 7-3752