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CRS Report for Congress

Rebuilding Housing After Hurricane Katrina: Lessons Learned and Unresolved Issues

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Summary

Hurricane Katrina, which made landfall near New Orleans on August 29, 2005, arguably caused more direct damage to more people than any previous natural disaster in the history of the United States. It led to the evacuation of a major city and the surrounding area. It destroyed housing and infrastructure on an unprecedented scale. Many people had to be rescued by military and civilian first responders.

Many members of Congress, the White House, and affected state and local governments suggested ways to manage the rebuilding process. The Louisiana congressional delegation supported legislation to create a special corporation, the Louisiana Recovery Corporation, funded by up to $30 billion to finance and to manage the rebuilding of housing in Louisiana. The Bush Administration created the Office of the Federal Coordinator for Gulf Coast Rebuilding within the Department of Homeland Security (DHS) and appointed Donald E. Powell as coordinator. Congress approved a total of $81.6 billion in supplemental disaster appropriations in FY2005 and FY2006. The state of Louisiana created the Louisiana Recovery Authority to oversee rebuilding efforts.

To many of those affected, the recovery has seemed slow and uneven. Rebuilding has been hindered by the severity of the damage, the need to limit future flood damage, and the need to coordinate the recovery among many levels of government. The dispersal of population has made public hearings and elections difficult. Pre-existing economic trends were already providing incentives for jobs and people to leave the area, not to stay.

Congress has a continuing interest in how the recovery proceeds because of the large number of citizens affected by the hurricanes, the amount of money appropriated, and the near certainty that there will be other catastrophic disasters in the future. Specific issues raised by Katrina include the problem of uninsured losses and determining which level of government should lead, or coordinate, the recovery effort.

This report summarizes the impact of the hurricane, reports on the status of recovery efforts a year after Katrina, explores the reasons why the recovery has proceeded as it has, and suggests issues that Congress might wish to consider in order to better plan for future disasters and to improve the capability of all levels of government to respond effectively.

This report will not be updated.

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Introduction

Katrina Was Unprecedented

Hurricane Katrina, which made landfall in Plaquemines Parish, LA, near New Orleans on August 29, 2005, by many measures caused more direct damage to more people than any previous natural disaster in U.S. history. It led to the evacuation of a major city (New Orleans) and the surrounding area. It destroyed housing and infrastructure on an unprecedented scale. Many people had to be rescued by military and civilian first responders.

Rebuilding the Gulf Coast after the 2005 hurricanes presents unprecedented challenges both to those directly affected and the nation. Hurricane Katrina devastated 90,000 square miles, made 770,000 people homeless, and had a death toll of 1,464 in Louisiana alone.[1] In comparison, the 1906 earthquake and fire in San Francisco killed an estimated 500 to 3,000 people and probably made 250,000 homeless. The Galveston Island flood of 1900 killed as many as 8,000 people in the island city. The Chicago fire of 1871 burned an area of approximately three square miles of the city and made 100,000 people homeless.

Katrina clearly met the Department of Homeland Security's definition of catastrophe:

> Any natural or manmade incident, including terrorism, that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.[2]

Issues for Congress

The nation will face the challenge of recovering from disasters and catastrophes in the future. Some types of natural disaster have a strong geographical component. For example, the Gulf and East Coasts are subject to hurricanes and other coastal storms, and the West is threatened by wild fires during dry weather. Other types of

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[1] Louisiana Remembrance & Rebirth, "Hurricane Katrina Anniversary Data for Louisiana," at [http://rememberrebirth.org/documents/LouisianaKatrinaAnniversaryData082206.pdf], viewed Dec. 11, 2006.

[2] Department of Homeland Security, *National Response Plan*, p. 67. Available at [http://www.dhs.gov/xlibrary/assets/NRP_FullText.pdf], viewed Dec. 11, 2006.

natural disasters, such as riverine floods, can occur almost anywhere in the country. Most of these events can be managed with the existing disaster response and recovery systems, but sometimes additional federal assistance is sought.

In addition to concerns about responding to future disasters, Congress has an oversight interest in how the various government agencies and private organizations respond because of the $81.6 billion in supplemental disaster appropriations in FY2005 and FY2006 for Katrina and Rita recovery. Inevitably there will be questions about how these funds are spent, how the funds could have been better spent, and how controls could be improved in the future.

Impact

This section presents some statistics on the impact of Katrina. These statistics can present only a partial view of the devastation.

Gulf Coast housing was greatly affected by Katrina. The Red Cross sheltered 141,000 people in Louisiana and 443,800 overall for up to three months.[3] The Federal Emergency Management Agency (FEMA) approved housing and rental assistance including travel trailers, mobile homes, and personal housing repairs for 1.6 million households. The Department of Housing and Urban Development (HUD) estimated that more than 305,000 houses and apartments were severely damaged. In Louisiana alone more than 106,000 units were severely damaged, more than 98,000 suffered major damage, and more than 310,000 had minor damages.[4] This amounts to 29% of the owner-occupied housing stock and 35% of the rental stock.

Longer-term measures also indicate the continuing distress of those who lived in the area affected. In Louisiana the percentage of mortgages on owner-occupied houses 30 days or more past due increased to 20.8% in the fourth quarter of 2005 from 6.7% in the second quarter of 2005. The delinquency rate has decreased since then largely because key mortgage market participants including the Federal Housing Administration, Fannie Mae, and Freddie Mac instructed mortgage servicers to suspend mortgage payment collections and to halt foreclosure proceedings in the worst affected areas. Most mortgages continued to accrue, meaning that the payments were delayed but were not forgiven. Freddie Mac announced that it would purchase $1 billion in mortgages in the most affected area. In addition, the Federal Home Loan Finance Board announced that all of the Federal Home Loan Banks

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[3] Unless otherwise indicated, the statistics in this report are based on Amy Liu, Mia Mabanata, and Matt Fellowes, *Katrina Index: Tracking Variables of Post-Katrina Recovery*, The Brookings Institution, Updated Oct. 11, 2006. A link to the latest update can be found at [http://www.brookings.edu/metro/katrina.htm], viewed Dec. 11, 2006. Data problems limit the ability to compare different areas affected by Katrina and to track an area over time.

[4] U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Current Housing Unit Damage Estimates: Hurricanes Katrina, Rita, and Wilma*, Feb. 12, 2006, p. 11. Minor, major, and severe are defined on pages 4-5.

could direct their Affordable Housing Program funds to the area regardless of their primary jurisdiction.

Much rental housing was destroyed, and HUD's Fair Market Rent for the New Orleans metro area on a two-bedroom apartment increased to $940 per month in FY2006 from $676 per month in FY2005 largely because the impact of the reduced supply dominated the impact of reduced demand.

Public services were reduced. Ridership on New Orleans Regional Transit Authority buses declined to 431 people the week after Katrina from 124,000 before the hurricane. A year later weekly ridership was 16,000. Only 16% of the routes and 8% of the buses were operational a little over a month after Katrina. After a year, 49% of the routes and 17% of the buses were operational.

Only 19% of electrical customers and 36% of natural gas customers had access to these services in Orleans Parish (which is coterminous with New Orleans) immediately after Katrina, but a year later more than 95% of former customers had access to electricity and natural gas. Access is not the same as usage, because rebuilding has been slow, and, in many cases, buildings must be inspected for safety before the utilities can be turned back on. Despite the general availability of electricity and natural gas, only some 60% of former customers were using electricity and 41% were using natural gas a year later.

Only 9% of the major hospitals in Orleans Parish were open a month after Katrina, and a year later 50% were open.

Katrina's impact was uneven both throughout Louisiana and the larger Gulf Coast area. Between July and November 2005, population declined 69% in Orleans Parish, 27% in Jefferson Parish, 48% in Plaquemines Parish, and 89% in St. Bernard Parish. (This report's appendix contains a map of the affected area.) The New Orleans metro area's population declined 37% overall, and Louisiana's population declined 6%.

Between August and November 2005, the labor force — those working or actively looking for work — declined 31% in Orleans Parish, 26% in the New Orleans metro area, 5% in Louisiana, and 2% in Mississippi.

Initial Proposals for Recovery Coordination

After Katrina struck, four major proposals were made concerning coordination. Some involved vesting great power in one person (the "czar") or a few people.[5] Two proposals were implemented. In one, the Bush Administration created the Office of the Federal Coordinator for Gulf Coast Rebuilding within the Department of Homeland Security (DHS). President George W. Bush appointed Donald E. Powell as coordinator; he reports to the secretary of DHS. The federal response includes nearly $975 million approved in Community Disaster Loans; $4.8 billion

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[5] See CRS Report RL33126, *Disaster Response and Appointment of a Recovery Czar: The Executive Branch's Response to the Flood of 1927*, by Kevin Kosar for an example of a strong leader after an earlier disaster.

reimbursement to Alabama, Louisiana, and Mississippi for activities such as debris removal; $6 billion from FEMA in the Individuals and Households Assistance Program; $10.4 billion in Small Business Administration (SBA) disaster loans; and $15.3 billion paid out under the National Flood Insurance Program.[6]

In the other implemented approach, Louisiana Governor Kathleen Babineaux Blanco created the Louisiana Recovery Authority (LRA), a state agency in charge of planning the recovery and rebuilding after the hurricanes. The state legislature later passed authorizing legislation. Members of the board of directors are appointed by the governor and confirmed by the state senate. The LRA has held public hearings to develop recovery plans including a plan for housing called The Road Home.[7] As of November 2006, it was estimated that 77,000 out of 123,000 eligible homeowners had applied to the LRA for assistance and that 28 checks had been written.[8]

One proposal that was not implemented was supported by the Louisiana congressional delegation and embodied in H.R. 4100 in the 109th Congress and its companion bill, S. 2172, to fund and manage the recovery in that state by creating the Louisiana Recovery Corporation (LRC). The LRC would have used $30 billion in federal funds to purchase and rebuild damaged homes, and repair local roads, sewers and other public infrastructure according to local plans. The House Committee on Financial Services ordered H.R. 4100 reported out of committee. The Senate Committee on Banking, Housing, and Urban Affairs held hearings on S. 2172, but did not hold a vote.

A second proposal that has not been implemented came from New Orleans civic leaders who proposed creation of the Crescent City Recovery Corporation to serve a similar purpose in New Orleans.

The Future. Although many residents of the area destroyed by Katrina and Rita have indicated that they would like to return to the situation as it was before the hurricanes, this is unlikely to happen for a number of reasons:

- A large number of homes and businesses would have be rebuilt.
- A large proportion of the infrastructure was destroyed over a very large area. Buildings, roads, water and sewer lines, power lines, and working local governments were badly damaged.
- A major city (New Orleans) evacuated its population.
- There are economic forces that may shape the recovery regardless of governmental efforts. New Orleans has been losing population since 1960, and economic opportunities were limited before the hurricane, making complete population recovery problematic. Deciding what

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[6] Federal Emergency Management Agency, *By the Numbers — One Year Later: FEMA Recovery Update for Hurricane Katrina*, Aug. 22, 2006, [http://www.fema.gov/news/newsrelease.fema?id=29109], viewed Dec. 11, 2006. All numbers are as of Aug. 18, 2006.

[7] See [http://www.lra.louisiana.gov/road_home.html], viewed Dec. 11, 2006.

[8] Ed Anderson, "Faster Work Vowed on Grants; Blanco Dissatisfied with Road Home Pace," *New Orleans Times-Picayune*, Nov. 16, 2006, p. 3.

and where to rebuild in Louisiana is likely to be more difficult than after the San Francisco earthquake and fire, or the Chicago fire.

Why Rebuilding Seems Slow

This section analyzes why rebuilding the Gulf Coast, particularly the area around New Orleans, has been perceived as slow. Part of the reason is the natural desire of those displaced and otherwise affected to return to the conditions that existed before Katrina struck.

Severity

Hurricanes Katrina and Rita resulted in destruction spread over more than 90,000 square miles in Texas, Louisiana, Mississippi, and Alabama. Some 770,000 people were displaced. This alone would make the unprecedented reconstruction slower than many other disasters.

Unlike earlier cases such as the San Francisco earthquake and fire, the Chicago fire, and the Galveston flood, a very large proportion of those affected by Katrina did not remain in the area to start the recovery. Rebuilding after these earlier disasters occurred without major changes to the areas' geographic layouts. In the case of Chicago, this was the result of individual economic decisions by businesses and households. San Francisco officials announced that everything would be rebuilt in its old location. These officials initially mandated that the new structures be more fireproof, but ignored this requirement to speed rebuilding.[9] Galveston was rebuilt as a much smaller city, in part due to the competition from Houston. In contrast, much of the Gulf Coast rebuilding is to be done to meet new flood plain and building code requirements, and other rebuilding might be in new locations.

The destruction caused by the six other named 2005 hurricanes that made landfall in the United States (Arlene, Cindy, Dennis, Rita, Tammy, and Wilma) caused competition for resources. Katrina's estimated $100 billion of losses were the largest of the year. Rita caused $10 billion in losses, Wilma $12 billion in losses, and Dennis $2 billion. In economic terms, these losses increased the demand for resources such as lumber, plywood, engineers, and construction workers. The increased demand resulted in higher prices and wages. For example, the average weekly wage in construction in the New Orleans area rose to $913 in the fourth quarter of 2005 from $680 the previous quarter.

Hurricanes and other disasters that involve flooding create insurance coverage issues that are not present with other natural disasters. Normal homeowner's

[9] See the online exhibition at the University of California at Berkeley's Bancroft Library at [http://bancroft.berkeley.edu/collections/earthquakeandfire/index2.html], viewed Dec. 11, 2006.

insurance covers specific causes of damage, but excludes flooding. This can lead to disputes over whether damage was caused by wind, rain, or flooding.[10]

Severity Triggers More Reviews

Most communities, including New Orleans, participate in the National Flood Insurance Program (NFIP), which requires that buildings that sustained damages of more than 50% of their pre-flood value or that are improved by more than 50% of their pre-hurricane value must meet requirements in effect when a new building permit is issued. In many areas, substantial rebuilding for any reason triggers requirements for updating the entire structure to the current building code and detailed reviews.

Because of the severity of Katrina, many structures were damaged more than 50%. Repairing these damaged buildings requires new plans to comply with the new requirements. Developing, reviewing, modifying, and approving plans requires time and imposes additional costs. Faced with the additional cost to restore their buildings, owners may modify the original design. Certain features that previously were desirable could be too expensive to be practical with the new requirements. Other features that are now required, such as elevating a building to reduce future flood damage, may also be too expensive for some units. Some owners will wait for the government to make decisions hoping, for example, that new levees will eliminate the need to elevate buildings.

Population Density. Because of the population density of New Orleans and its surroundings, decisions made for one small area will have an impact on many other individuals and businesses. If a house in a rural area is not rebuilt after it is destroyed, there would be little impact on its neighbors who could be a mile or more distant. In the cities affected by the 2005 hurricanes, leaving a flooded-out building standing would have a negative impact on its neighbors. Derelict buildings present the risk of collapse and injury to individuals. They could become a habitat for feral animals or the scene of criminal activity. At the very least, abandoned buildings are eyesores that discourage redevelopment. A decision to modify a structure's previous use to meet current conditions could also have an impact on its neighbors.

Destruction of Public Infrastructure. The destruction of public infrastructure such as roads, water and sewer, police and fire stations, libraries, schools, hospitals, and administration buildings has initiated a deliberate process of planning and public hearings intended to create a census of residents. Some infrastructure using older technologies will be replaced rather than repaired.

Priorities compete for resolution. For example, an elementary school serving an area that after Katrina has few young children might never be rebuilt. A more difficult issue to resolve is deciding what will be rebuilt first.

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[10] For more information see CRS Report RL32972, *Federal Flood Insurance: The Repetitive Loss Problem*, by Rawle O. King.

Decisions on housing, jobs, and infrastructure are all related. Many decisions by households and businesses to return to the area will depend on the availability of public services, but until there are jobs and residents to pay taxes, local funding for reconstruction and operation will be limited.[11] Decisions that originally were made over decades are now being compressed into one or two years, resulting in controversy and litigation.

Some decisions concerning rebuilding an individual building can be made by the owner of the building, subject to building and zoning codes. Decisions about rebuilding public infrastructure are likely to involve many different city, county, and state offices. Meetings and public hearings frequently must be held before a decision is made. Sometimes one official can make the final decision, but many times a group of elected officials must vote to approve the plan. No matter how the public decision is made, it is likely that the original proposal will be modified.

Diseconomies of Scale and Coordination. Analysts frequently mention economics of scale, which is the reduction in the per unit cost of doing something as more is done, such as in building automobiles. The amount of Katrina's destruction results in *diseconomies*. If a two-way dialogue is necessary for coordination and decision making, the number of dialogues grows rapidly as the number of people in the discussion increases. Two people require one conversation. With three people, three conversations are necessary. With five people, 10 conversations must be held. Very quickly individual conversations become impractical and group meetings must be held.

There will be variations in peoples' preferences for reconstruction. The needs of those who are returning to New Orleans will likely differ from those returning to ocean-front communities such as Pass Christian. Those people returning to towns likely will have different needs from those returning to cities. To the extent that the needs of these different groups can be met by local governments and local decision making, these are viewed as the appropriate places to make the decisions.

An additional challenge occurs when localities need to coordinate reconstruction for maximum effectiveness. The value of a road is often much greater if it continues through the next town and parish than if it ends at the municipal limits.

Dispersal. There have been attempts to include evacuated residents in decision making on reconstruction and other pressing issues, but dispersal has made this difficult, slow, and more expensive. The 2006 New Orleans mayoral campaign saw political advertisements and campaign rallies in Atlanta, Houston, and Dallas. Satellite voting centers were established within Louisiana, but voters outside the state either had to use absentee ballots or had to return to participate. The many public meetings and discussions on rebuilding are not as easily handled when those involved are scattered over many states.

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[11] For information on FEMA's Community Disaster Loan program, see CRS Report RL33174, *FEMA's Community Disaster Loan Program*, by Nonna A. Noto and Steven Maguire.

Prior Transition. Employment and population patterns along the Gulf Coast were changing long before Katrina made landfall. The area had depended heavily on employment in the energy and ship building industry, but increasing automation and technology eliminated many jobs over the previous 10 to 20 years.

New Orleans's population has been decreasing since a peak of 627,525 in 1960 to 484,674 in 2000.[12] This declining population means that government efforts to rebuild New Orleans are not reinforced by a trend of growing population. After the earthquake and fire, San Francisco could be rebuilt in place, and every structure was occupied. New Orleans needs to analyze its situation in more detail because many individuals and businesses are not returning. In San Francisco, rebuilt schools were filled when classes resumed, but in New Orleans rebuilding all of the public school classrooms that existed in 2005 would lead to empty classrooms and unnecessary future maintenance and operation costs.

A RAND study completed in January 2006 on repopulating New Orleans estimates that in December 2005 the New Orleans population was 91,000.[13] Repopulation is happening faster than RAND expected: it predicted that in March 2006, the New Orleans population would be 155,000, but Census later estimated that the New Orleans population was greater than that by January, and a more recent estimate by Brookings indicated continued population growth. Table 1 below summarizes New Orleans population changes. Estimates are based on actual decennial census counts. Projections are forecasts of future populations. If RAND's projection holds, New Orleans in 2008 will be three-fifths its previous size, rebuilding will be slower, and not all of the pre-Katrina infrastructure will be required.

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[12] Campbell Gibson, *Population of the 100 Largest Cities and Other Urban Places in the United States: 1790 to 1990,*Census Bureau, [http://www.census.gov/population/documentation/twps0027/tab23.txt], viewed Dec. 11, 2006. U.S. Census Bureau, *2000 Census of Population and Housing, Population and Housing Unit Counts,* PHC-3.

[13] Kevin McCarthy, D.J. Peterson, Narayan Sastry, and Michael Pollard, *The Repopulation of New Orleans after Hurricane Katrina*, (Santa Monica, CA. RAND; Gulf States Policy Institute,2006), p. xiii. Available at [http://www.rand.org/pubs/technical_reports/2006/RAND_TR369.pdf], viewed Dec. 11, 2006.

Table 1. New Orleans Population 1960-2008 (Projected)

Data Source	Population
1960 Census	627,525
2000 Census	484,674
July 2004 Census Estimate	443,430
December 2005 RAND Projection	91,000
January 2006 Census Estimate	158,353
February 2006 Brookings Estimate	181,400
March 2006 RAND Projection	155,000
September 2006 RAND Projection	198,000
September 2008 RAND Projection	272,000

Sources: U.S. Census Bureau, RAND, Brookings Institution. The RAND projections were done between November 2005 and January 2006.

Lessons Learned and Questions for the Future

Future disasters are inevitable. The problems and solutions from the 2005 hurricanes suggest possible issues that Congress is likely to face.

Future Disasters

Disasters come in different sizes. They can cover different amounts of land (and water), they can affect different numbers of people, and their effects on different people will be different. Some types of disasters such as hurricanes lead people to flee the area, while others such as tornados and droughts do not, although any disaster may convince people to move or force businesses to close. The costliest drought since 1980 in the nation occurred in 1988, caused more than $67 billion of economic losses, and was associated with more than 5,000 deaths.[14] The costliest flood since 1980 occurred in the Midwest in 1993 and caused some $29 billion in losses and 48 deaths.

Some types of disasters are very devastating to those directly affected, but have limited impact on others. Tornados are well known for destroying one house and leaving another next door untouched. Hurricanes and other coastal storms frequently affect a region that is measured in thousands of square miles, but the number of people affected depends on where the storms make land. Other disasters such as

[14] Neal Lott and Tom Ross, *Tracking and Evaluating U.S. Billion Dollar Weather Disasters, 1980-2005*, National Climate Data Center, available at [http://www1.ncdc.noaa.gov/pub/data/papers/200686ams1.2nlfree.pdf], viewed Dec. 11, 2006. The report uses 2000 dollars, CRS has updated the losses to 2005 dollars using the Gross Domestic Product deflator available at [http://www.bea.gov], viewed Dec. 11, 2006.

earthquakes and wild fires usually affect a smaller area. Finally, events such as a terrorist attack or a flu pandemic can affect the entire nation.

What Should Be Done About Uninsured Losses?

One of the most difficult issues after a disaster is what should be done about uninsured losses. While compassion leads many to suggest that the government should in effect provide insurance after the fact, economic efficiency suggests that this could have costs in the future. The issue (called moral hazard by economists) is that if people see that insurance will reimburse them for disaster losses, there is less reason to protect themselves in advance against such losses. For example, federal flood insurance has made it possible for people to obtain mortgages to build in many areas where floods are likely to occur in the future. A private lender would be unlikely to lend money to own a house in a flood plain without flood insurance to protect the loan's collateral (the house). A private insurer might not make flood insurance available at all or would charge a much higher rate than the government does. Government flood insurance is a benefit to those who take advantage of the insurance. When the government assists homeowners, renters, and businesses to cover uninsured losses, the incentive to purchase insurance and to mitigate losses in future disasters is lessened.

In considering the issue of the uninsured losses, Congress might wish to investigate why insurance was not purchased and consider programs to reduce uninsured losses. If appropriate insurance is not available, there is likely to be some underlying reason that could be addressed. If people underestimate the risk of a disaster and consequently do not purchase insurance, an education campaign might be a solution. If a government organization has some responsibility for the severity of the disaster, closer oversight and additional reimbursement might be considered. If the losses were the result of a rational decision based on correct information, perhaps no government response would be appropriate.

H.R. 4100 and S. 2172 would have reimbursed homeowners for uninsured losses and in many cases paid off the balance of their mortgages. Louisiana has created the Louisiana Recovery Authority that will reimburse many homeowners for some of their uninsured losses. An economic policy issue that Congress might wish to consider is how to provide an incentive for homeowners to purchase insurance if the state or federal government in effect supply it for free after a disaster.

Where Should Responsibility and Authority Rest?

Economists studying the issue of the optimal way to assign roles and responsibilities to different levels of government have developed a theory of fiscal federalism.[15] In summary, this approach recommends that local governments be given as much responsibility for providing public goods and services as is consistent

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[15] See Robin W. Boadway and David E. Wildasin, *Public Sector Economics*, 2nd ed. (Boston: Little, Brown, and Company, 1988), pp. 497-518 for an introduction. See also Wallace E. Oates, "Toward a Second-Generation Theory of Fiscal Federalism," *International Tax and Public Finance*, vol. 12, no. 4 (Aug. 2005), pp. 349-373.

with their abilities and resources. This allows individuals and households to receive the types of goods and services they most desire and are most willing to pay for.

Following Katrina-scale disasters, one of the challenges facing local (and perhaps state) governments is the loss of physical and financial resources. The destruction of homes and businesses can reduce income tax and property tax revenues at a time when there is a need for financing the rebuilding of public infrastructure. The reduced tax revenues can make bond financing difficult because of the reduced ability to repay principal and interest. Federal grants and loans such as FEMA's Community Disaster Loans can speed the recovery while leaving authority and responsibility in state and local governments.

With federal grants and loans, the recipients have the obligation to use the funds as specified. Federal oversight responsibility remains.

An issue that Congress might wish to consider after future disasters is where the federal management and oversight responsibility should be placed. There are many tradeoffs between cost, speed, authority, and responsiveness to local and national goals. For example, H.R. 4100 and S. 2172 would have created an independent government corporation (the Louisiana Recovery Corporation) with seven members of the board of directors nominated by the President with the advice and consent of the Senate and two by the governor of Louisiana. This might have had the advantage of focusing senior management within the corporation exclusively on disaster relief, but it could have lessened Congressional and administration oversight. The plan adopted with a federal coordinator places the responsibility in a person who was not confirmed by the Senate, and who reports to a Cabinet secretary.[16]

Unless this person has unusual formal or informal authority, he or she will work with others at similar levels in their agencies. It could be argued that requiring Senate confirmation and placing the position in the executive pay schedule would bring additional formal and informal authority and enhance coordination with other government agencies. The Senate confirmation process also publicizes the appointee's experience and credentials for the position. One of the tradeoffs with Senate confirmation is the time required for the hearings and vote.

In the aftermath of Hurricanes Katrina and Rita, the federal government chose not to create a new funding mechanism such as was proposed in H.R. 4100 and S. 2172. Instead, funding for existing programs such as Community Development Block Grants (CDBG) was increased. Existing federal oversight measures were unchanged.

Frequently after a major disaster or catastrophe, local and national desires are in conflict. On the one hand, people that lose housing because of flooding frequently would like to move back to their old location and to obtain financial assistance. They encourage elected officials to facilitate their return. On the other hand, at the national level, leaving large sections of a flooded area undeveloped can protect other areas from flooding. Building taller levees and dams can move the flood water

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[16] See CRS Report RS22334, *Federal Hurricane Recovery Coordinator: Appointment and Oversight Issues*, by Henry Hogue, for a discussion of other legal and policy issues concerning the appointment of the Katrina coordinator.

downstream where flooding can be worsened. In the end, an ad hoc response might be the best solution, but planning can improve the outcome.

Summary

Hurricanes Katrina and Rita in 2005 were unprecedented in the amount of destruction that they caused, but natural and man-made disasters are a regular occurrence. Many of the concerns about planning and organization arising after these hurricanes are likely to arise again in the future. Questions that Congress may wish to consider include

- How will federal reconstruction efforts be managed?
- Where should responsibility and authority reside?
- What accountability should there be?
- What federal organization should be in charge of the national government's response?
- What rank should be given to the head of the federal government's recovery team? Should Senate confirmation be required?
- What should be done about uninsured losses?
- What level of government is best suited to make difficult or unpopular decisions?
- Does any federal responsibility for the disaster influence the federal government's role in recovery?

Appendix — Map of Area Most Impacted by Hurricane Katrina