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HOUSING AFTER NATURAL DISASTERS: LESSONS LEARNED FROM HURRICANE KATRINA

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Testimony Presented to the
U.S. House of Representatives Committee on the Judiciary
Subcommittee on the Constitution, Civil Rights, and Civil Liberties

July 29, 2010

Chairman Nadler, Ranking Member Sensenbrenner, thank you for the opportunity to discuss the important issue of housing in the Gulf Coast area after Hurricane Katrina and the lessons we can apply to disaster recovery in the future. I commend the subcommittee for keeping the spotlight on this issue almost five years after the hurricane.

Let me start off by explaining my background on the subject. I am not a legal scholar. As the director of the Gulf Coast Recovery Project at the Mercatus Center at George Mason University, a university-based research group focused on the economics of public policy issues, I have spent much of the past five years learning about the Gulf Coast's recovery after Hurricane Katrina from the people on the ground doing the heavy lifting.

* Please note that my testimony does not represent an official position of George Mason University.

I am part of a team over two dozen researchers that has conducted over 450 hours of interviews with nonprofit leaders, social and economic entrepreneurs, public officials, clergy, community leaders, and everyday citizens in Louisiana and Mississippi, as well as former Louisianans now living in Houston, Texas, who are working hard to rebuild their lives, businesses, schools, and communities after Hurricane Katrina. Our research focuses on the economic, political, and sociological aspects of disaster response and recovery and is rooted in learning from the people on the ground about what works and what does not work to prepare for, respond to, and recover after disasters.

During the course of the project, our researchers have published over 50 journal articles, working papers, and policy studies, two of which I have included as appendices to my testimony as they further expound upon the issues I will discuss. I hope that these studies will be helpful to the subcommittee, and I would be happy to provide you with any additional information or studies that may be of use.

Our research suggests that that the three most important characteristics of successful post-disaster public policy are credibility, flexibility, and simplicity. I will expand on these topics after first discussing some highlights of what worked and what did not work to rebuild housing after Katrina.

Private Actions and Public Success

Virtually every success related to rebuilding housing has stemmed from the resilience and hard work of the communities affected by Katrina, each in a different way. To highlight a few of hundreds of examples:

- The Broadmoor Improvement Association (BIA) is revitalizing the Broadmoor neighborhood. Located in the heart of New Orleans—or, as it also might be characterized, at the bottom of the New Orleans soup bowl—this neighborhood faced an immense challenge: a month after Katrina, most of the neighborhood still sat underneath up to ten feet of water. Our interviews with Broadmoor residents suggest that social capital

within the community, which the BIA leveraged, combined with partnerships with outside groups, were key to rebuilding the area's housing stock. The BIA rallied the neighborhood and partnered with universities and businesses to bring funds and expertise to the community. As a result, Broadmoor, one of the most diverse neighborhoods in New Orleans, both in terms of race and income, had a much higher level of rebuilding than the largely white, upper-class Lakeview area two years after Katrina. Over two-thirds of the neighborhood's homes were rebuilt or being rebuilt, an astounding record of accomplishment.

- In New Orleans East, members of the Vietnamese-American community rallied around the Mary Queen of Vietnam Catholic Church. With the church's three priests serving as a conduit for information, residents of the area rebuilt their homes and formed a community development corporation to revive local businesses. Three years after Katrina, their neighborhood was almost completely rebuilt while nearby neighborhoods languished.
- The late Pam Dashiell, then the co-director of the Lower Ninth Ward Center for Sustainable Engagement and Development, explained in 2008 the importance of locally managed rebuilding this way: "Because the community, we live here. We talk to the community. It's not us with the knowledge; it's the community with the knowledge. It's an interactive deal."¹ Other organizations and foundations, both large and small, have taken her observation to heart when it came to their efforts to help rebuild areas in more flood-resistant ways. Brad Pitt's Make It Right Foundation worked with the Lower Ninth Ward Neighborhood Empowerment Network Association to build architecturally creative homes in that

¹ Interview with Pam Dashiell, *Caring Communities: The Role of Nonprofits in Rebuilding the Gulf Coast*, Local Knowledge (2), Mercatus Center, at <http://loalknowledge.mercatus.org/profiles/pam-dashiell>.

devastated community. Habitat for Humanity built a small neighborhood especially for musicians and artists in the Upper Ninth Ward.

Across Louisiana and Mississippi, community leaders, clergy, and social entrepreneurs have leveraged social capital and local knowledge to spur rebuilding. And over a million Americans have volunteered their time, some for a week and some for years, to gut, fix, and rebuild houses one at a time.

In short, housing has been rebuilt from the ground up.

Public Policies and Public Failures

Public policy, however, does not have such a record of success. Indeed, in many cases, it has done more to impede than promote the restoration of the Gulf Coast's housing stock after Katrina. To take one example, look at Louisiana's Road Home Program.

Though it was established and funded by the end of 2005, by January 2007 Road Home had written fewer than 1,000 checks to Louisiana homeowners. Two years after Katrina hit, only 23 percent of those who had successfully navigated the 57-step application process had received settlements. Because the program endeavored to operate not just as a disaster compensation program but also as a community development program, owners of damaged homes could not leave the state or become renters without significant penalties to their settlements.

Hazard Mitigation Grants, which provided funds for homeowners to elevate their homes, were abruptly stopped in March 2007 when FEMA informed Louisiana that the state's implementation of the program failed to comply with federal regulations. The program did not resume for seven months. Also in March 2007, a Department of Housing and Urban Development ruling made Road Home subject to a host of additional federal laws and regulations, which shut down the program while state and federal officials could reach an agreement about how to redesign the program.

In short, federal and state policies designed to rebuild homes and thereby promote stability instead sowed confusion and uncertainty, making it difficult for people to make informed decisions about how, where, and when to rebuild.

Local policy in some places aggravated this. The City of New Orleans undertook five different replanning programs, one of which suggested that whole neighborhoods—including Broadmoor and the Lower Ninth Ward, both of which I discussed earlier—should not be allowed to rebuild. Fewer than five months after Katrina—and just weeks after Lower Ninth Ward residents were first allowed to see (but not enter) their devastated homes—the plan suggested that nobody would be allowed to begin rebuilding for four months, until neighborhoods could, through as-yet unknown means, prove their “viability.” Former New Orleans mayor and National Urban League president Marc Morial called the plan a “massive red-lining plan wrapped around a giant land grab.”²

To say that this plan and related ones impeded the abilities of homeowners and landlords to restore their properties is an understatement. The confusion that resulted from bureaucratic, politically designed programs and a city planning mentality that viewed New Orleans as a blank slate contributed more than perhaps any other factor to slowing the rebuilding of homes and neighborhoods after Katrina.

Across the region, this uncertainty created what economist Emily Chamlee-Wright of Beloit College and I call “signal noise”: the persistent distortion of signals from the private and nonprofit sectors that does not self-correct, making the underlying signals—the signals critical to guiding sustainable recovery—more difficult for people on the ground to read and interpret.³ Signal noise is not simply the inevitable confusion that follows a disaster, but stems from public policy actions that create uncertainty about what

² Quoted in Gary Rivlin, “Anger Meets New Orleans Renewal Plan,” *New York Times*, January 12, 2006.

³ As economist Emily Chamlee-Wright and I write in our paper which appears in the appendix to this testimony, “The concept of signal noise comes from the natural sciences. ‘Signal to noise ratio’ in radio communications refers to the amount by which static and interference dilutes the signal of, for instance, a commercial radio station. As the noise surrounding a signal becomes stronger, radio listeners find it harder to follow the music. Other social scientists have used the concept of signal noise and discussed the effects of signal noise, most notably Robert E. Lucas, ‘Expectations and the Neutrality of Money,’ *Journal of Economic Theory* 4(2), 1972, pp. 103–24.”

economists call the “rules of the game” for rebuilding. By this I mean the rules that allow society to function by enabling trade, property rights, security of person, enforcement of contract, and the provision of public and quasi-public goods like roads, floodworks, schools, and police. Public policy creates signal noise when it distorts the signals sent through others rebuilding homes, reopening or establishing businesses, restarting schools, and resuming religious services. I discuss this in much more depth in an appendix to my testimony.

Indeed, respondents in our interviews directed their strongest critiques at the seeming inability of the federal, state, and local governments to coordinate on the most basic matters of policy. The broken promises and the finger pointing had not only deleterious effects on morale but also impeded the clear establishment and promulgation of the rules of the game, making it more difficult for citizens to make decisions. After Katrina, a perceived flood of bureaucratic incompetence and thumb-twiddling from all levels of government followed the literal flood and had a significant and conspicuous negative effect on recovery. The most obvious example of this—promising housing aid to communities struggling to rebuild and then failing to have that aid materialize on time—was a prime source of signal noise for several years after Katrina hit.

In the future, policy makers must avoid making promises that they will not fulfill. It is far better for policy makers to under-promise and over-deliver than to promise funds, technical assistance, or the resumption of public services and not then supply them. In order to help people to make decisions about how to best house their families after disasters and to accelerate the process of landlords bringing their rental properties back online, policy makers and the policies they create must focus on making and executing clear, credible commitments about how, where, and when government will act. In other words, the best way that public policy can improve access to housing after disasters is through making and fulfilling commitments to provide public goods that allow the provision by the private sector and nonprofit groups of private goods such as housing.

Three Key Principles for Policy

In order to do this, public policy should ground decision making in three key principles: certainty, flexibility, and simplicity.

Certainty

Certainty about rules for rebuilding is the best way to get landlords to revamp their properties, which in turn is the best way to increase the quantity and quality of housing and to reduce its cost. Unclear planning policies, confusing and contradictory social engineering programs disguised as compensation programs, and broken promises only slow the process. It is ultimately counterproductive for policy makers to make promises that are unlikely or impossible to come to fruition.

Flexibility

Another key to effective post-disaster housing policy is flexibility. The purpose of post-disaster housing policy should neither be to rebuild homes and neighborhoods exactly as they were before, nor should it be to replan neighborhoods and communities from the top-down. Rather, it should focus on providing households with assistance in the most flexible forms possible to rebuild their homes, purchase new ones, become renters, or even move to other cities and states if they prefer. After all, housing about is more than just a roof over a family's head; it incorporates a deeply emotional element as well. As Katie Mears, then the gutting and rebuilding coordinator for the Episcopal Diocese of Louisiana put in, "Gutting wasn't [only] about reconstruction. It was about closure for the pre-Katrina life."⁴

Allowing people and communities to figure out their own solutions to both short-term and long-term housing problems unleashes their creativity and allows for that closure. The public sector can support and affirm the ability of households to make their own best decisions in both the short and longer terms by providing public assistance in the form of vouchers that have as few strictures placed on them as possible.

⁴ Interview with Katie Mears, *Caring Communities: The Role of Nonprofits in Rebuilding the Gulf Coast*, Local Knowledge (2), Mercatus Center, at <http://localknowledge.mercatus.org/profiles/katie-mears>.

Simplicity

It is critical to keep both the policy goals and the programs simple. Complex programs that serve multiple goals frequently find that those goals compete for resources or contradict one another. Policy makers should also be attuned to the perverse incentives that some programs create. For instance, the Road Home Program effectively penalized people for having carried homeowner and flood insurance, deducting these settlements from these policies that Road Home settlement. This, in effect, rewarded people who failed to maintain insurance on their homes. Bear in mind that, above all, the resumption of normalcy is the goal of rebuilding. To the extent possible, housing policies should be established before a disaster to avoid the weeks and months lost to discussion and debate after an event.

Simplicity, flexibility, and household control should be the bedrock principles of post-disaster housing policy. Much of the heartache and human suffering that residents of Louisiana and Mississippi experienced after Katrina was caused by programs at all levels of government that were too complex, too rigid, and insufficiently deferential to local knowledge and household control. These are mistakes that do not have to be repeated when the United States faces its next natural disaster.

Thank you again for the opportunity to present our research to the subcommittee, and I again commend the subcommittee for keeping attention on this important issue.

Appendices

Emily Chamlee-Wright and Daniel M. Rothschild, “Disastrous Uncertainty: How Government Policy Undermines Community Rebound,” *Mercatus Policy Series Policy Comment 9*, 2007.

Eileen Norcross and Anthony Skriba, “The Road Home: Helping Homeowners in the Gulf After Katrina,” *Mercatus Policy Series Policy Comment 19*, 2008.

MERCATUS POLICY SERIES

POLICY COMMENT NO. 9

DISASTROUS UNCERTAINTY: HOW GOVERNMENT DISASTER POLICY UNDERMINES COMMUNITY REBOUND

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JANUARY 2007

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A professor of economics at Beloit College, EMILY CHAMLEE-WRIGHT earned a PhD in economics from George Mason University. Her research investigates the confluence of cultural and economic processes. Much of her current research centers on Gulf Coast recovery efforts in the wake of Hurricane Katrina. She is currently working on her third book, *The Learning Society*, which examines how communities deploy social capital resources in the face of poverty and devastation. Professor Chamlee-Wright is a former W.K. Kellogg National Leadership Fellow and a recipient of the Underkoffler Award for Excellence in Teaching from Beloit College.

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DISASTROUS UNCERTAINTY:

HOW GOVERNMENT DISASTER POLICY UNDERMINES COMMUNITY REBOUND

EMILY CHAMLEE-WRIGHT AND DANIEL M. ROTHSCHILD

EXECUTIVE SUMMARY

In the aftermath of large-scale disasters, policy makers frequently respond by developing and directing top-down recovery plans and launching a variety of expensive and complicated programs to rebuild cities and compensate victims. This was certainly the case after Hurricane Katrina.

However, these plans tend to ignore the innate abilities of individuals, communities, and businesses to use a variety of resources and sources of information to guide their decisions about whether and how to rebuild. These decisions are not made in isolation, but rather depend substantially on the signals sent by similarly situated people.

Recovery efforts guided by the signals that emerge from action on the ground produce faster, more robust, and more sustainable redevelopment than efforts stemming from a politically-produced and centrally-executed recovery plan. Moreover, large-scale redevelopment programs can overwhelm and obfuscate the signals created locally, stalling and distorting the organic recovery that is crucial to long-term sustainable development.

Public policy can foster an environment which encourages sustainable, organic recovery by:

1. Providing quick, clear, and credible commitments about what goods and services governments will provide and when,
2. Creating in advance alternative regulatory regimes specific for post-disaster environments, and
3. Avoiding policies that distort local economies and hamper civil society rebuilding.

Because policy mistakes can have serious retarding effects on post-disaster rebuilding efforts, policy makers must understand the systemic reasons why government help so often goes awry, why private citizens with a stake in the outcome are best situated to lead their own recovery, and how to craft policy responses in a way that keeps “signal noise” to a minimum.

DISASTROUS UNCERTAINTY:

HOW GOVERNMENT DISASTER POLICY UNDERMINES COMMUNITY REBOUND

INTRODUCTION

On August 29, 2005, the nation watched as Hurricane Katrina pummeled the Gulf Coast, inflicting over \$100 billion of property damage across broad swaths of Louisiana, Mississippi, Texas, and Alabama¹—ultimately claiming over 1,600 lives.² The fury of nature seemed to cause the institutions on which our society is based—those of government, commerce, and civil society—to crumble. First responders appeared overwhelmed as accounts of widespread looting, vandalism, theft, assault, and murder headlined newspapers and as the images of our fellow citizens literally swimming for their lives appeared on television and computer screens. The slow and seemingly inept responses of government at all levels both in preparation for and recovery from the storm infuriated Americans.

On September 15, President Bush addressed the nation from Jackson Square in the New Orleans French Quarter, pledging the federal government to sponsor and manage a rebuilding program of historic proportions:

[T]he federal government will undertake a close partnership with the states of Louisiana and Mississippi, the city of New Orleans and other Gulf Coast cities so they can rebuild in a sensible, well planned way. Federal funds will cover the great majority of the costs of repairing public infrastructure in the disaster zone, from roads and bridges to schools and water systems.

Our goal is to get the work done quickly. And taxpayers expect this work to be done honestly and wisely. . . .³

Sixteen months after Katrina made landfall, communities along the Gulf Coast are in various states of repair. Some areas are almost rebuilt, while in others little progress has been made. Some communities have proven remarkably resilient, while others have been unable to “get the ball rolling” on recovery. Given the commitment of \$110 billion by the federal government⁴ (including \$7.5 billion through the Louisiana Road Home

¹ John McMillan, “Nation Just Doesn’t Understand Scale of Katrina, Official Says,” *The Baton Rouge Advocate*, November 10, 2006.

² Marcus Frankin, “Columbia Geophysicist Wants ‘Full’ Katrina Death Toll,” Associated Press, October 28, 2006.

³ “President Discusses Hurricane Relief in Address to Nation,” White House Press Release, September 15, 2005, <http://www.whitehouse.gov/news/releases/2005/09/20050915-8.html>.

⁴ “Fact Sheet: A New Mississippi: Rebuilding in the Wake of Hurricane Katrina,” White House Press Release, August 28, 2006, <http://www.whitehouse.gov/news/releases/2006/08/20060828-2.html>.

Program),⁵ payments of over \$23 billion⁶ from the subsidized National Flood Insurance Program, and the subsidies offered under the Gulf Opportunity Zone and other tax credits, Gulf Coast residents affected by the storm, and Americans more broadly, are right to ask why the pace of recovery has been so slow.

Policy makers too remain concerned about the slow pace of recovery, and Americans of all political stripes believe that governments at all levels are not doing enough to help. A year after the storm, only 32 percent of Americans believed that federal agencies are doing “all that could be expected” of them.⁷ Two-thirds of Americans believed that the federal government’s response has been “not so good” or “poor.”⁸

However, the problem may not be that governments are not doing enough. In fact, the rebuilding effort is likely to be more rapid and sustainable if civil society, rather than government, takes the lead. But in order for civil society to fulfill its potential, governments must assume a relatively minor role in the redevelopment process so as not

to distort the signals generated by the discovery unfolding within civil society.

In the wake of Katrina, residents and business owners across the Gulf Coast are looking for signals—cues as to where they should devote their time and resources—regarding whether and when their communities and customer bases are going to return and in what form. A community is, after all, not just a political district or a tract of homes: it is a social system that connects individuals and their families to one another through formal and informal neighborhood groups and the services and social spaces created by schools, businesses, religious groups, and non-profit organizations. The futures of the victims of Katrina are tied to the decisions of others—their neighbors, their customers, their employees, and the commercial and non-commercial organizations serving their communities. In such a context, the signals coming out of civil and commercial society—signals about who is coming back and when and what services will be provided—play a critical role in the recovery process.⁹

⁵ Leslie Eaton, “Slow Home Grants Stall Progress in New Orleans,” *New York Times*, November 11, 2006.

⁶ Donald B. Marron (Acting Director, Congressional Budget Office), Letter to Senator Judd Gregg, May 31, 2006, <http://www.cbo.gov/ftpdocs/72xx/doc7233/05-31-NFIPLetterGregg.pdf>.

⁷ CBS News/New York Times poll conducted August 17–21, 2006. Fifty-nine percent of respondents believed that the federal government should be doing more, and nine percent were unsure. <http://www.pollingreport.com/disasters.htm>.

⁸ ABC News poll conducted August 10–20, 2006. Four percent rate the response as “excellent,” and twenty-five percent rate it as “good.” <http://www.pollingreport.com/disasters.htm>.

⁹ For more detail on this, see Emily Chamlee-Wright, “After the Storm: Social Capital Regrouping in the Wake of Hurricane Katrina” (working paper, Mercatus Center at George Mason University, Arlington, VA, 2006).

“Well, there’s a lot of uncertainties, you know? . . . [W]e don’t know whether [the] levee system’s going to hold, number 1. Number 2, a lot of people are still finding insurance issues that just haven’t been corrected. And number 3—even people who’ve got the insurance and you want to come back home, you don’t know how many people ever come back in the neighborhood. Who wants to live in the neighborhood with nobody there? So, there’s just so many uncertainties right now, you know? Who knows?”

—Law Enforcement Officer, New Orleans.

And yet, in the post-Katrina environment, many of the signals upon which people depend to make informed and responsible decisions have become difficult to read or have become so distorted that seemingly clear signals are sending the wrong message. We call this distortion “signal noise”: the persistent distortion of signals that does not self-correct, making the underlying signal more difficult for people on the ground to read and interpret.¹⁰

To take but one example, New Orleans is currently in its second (some say third) discrete rebuilding planning process in less than a year. As each new planning process and the commensurate rebuilding plan appear, residents change their decisions about how and whether to rebuild.

When a previously-announced plan is scrapped in favor of a new plan with different rules for rebuilding, time is lost, progress made under the now-obsolete plan is rendered useless, and residents are left wondering whether the next plan will be “the one”—or just another aberration. These multiple and varied signals that the city has sent to its residents have left people making decisions about rebuilding without any consistent knowledge of what and when policy makers will allow them to rebuild. This in turn slows the rebuilding process and delays the recovery of key commercial and civil society organizations and institutions. When governments fail to establish the rules of the game for rebuilding, or worse yet change the rules in mid-course, it becomes diffi-

¹⁰ The concept of signal noise comes from the natural sciences. “Signal to noise ratio” in radio communications refers to the amount by which static and interference dilutes the signal of, for instance, a commercial radio station. As the noise surrounding a signal becomes stronger, radio listeners find it harder to follow the music. Other social scientists have used the concept of signal noise and discussed the effects of signal noise, most notably Robert E. Lucas, “Expectations and the Neutrality of Money,” *Journal of Economic Theory* 4(2), 1972, pp. 103-24.

cult for victims to make vital decisions and get on with their lives.

To be clear, signal noise is not merely the confusion created by a major disaster; such confusion tends to subside relatively quickly after families reunite, supplies come in, and response shifts from emergency response to rebuilding. Nor is signal noise “natural.” Signal noise is not an inevitable result of disaster. Instead, it is often the unintended consequence of poorly conceived policy interventions. Whereas the signals generated by civil and commercial interactions, which possess built-in incentives that amplify the right signals and minimize the wrong ones, tend to sort out and reduce the confusion faced by individuals, government policy does not possess self-correcting properties. Indeed, signal noise generated through public policy tends to be stubbornly persistent.

In particular, federal, state, and local governments introduce signal noise through disaster relief efforts, management of flood protection and insurance systems, and redevelopment planning initiatives. We find that the distortions created by disaster policy often drown out the more nuanced, precise, and self-correcting signals generated by residents and businesspeople with a personal stake in how, when, and where rebuilding happens. Though it is possible for government to

foster an environment in which clear signals might emerge, current practices often undermine the efforts of private citizens trying to affect a swift and sustainable recovery.

The structure of this policy comment is as follows. In Section A, we describe specific strategies by which some Gulf Coast communities are successfully rebuilding. In Section B, we examine how civil and commercial society are generating signals necessary for a robust recovery. Section C discusses some of the ways in which government programs and policies undermine these community-based strategies by generating signal noise. Additionally, we examine the systemic reasons that make government-led recovery prone to such distortion. In the final two sections, we conclude by explaining the policy ramifications of this research and offering suggestions for how policy makers can reduce signal noise in dealing with future disasters.

Because public policy mistakes can have serious and broad retarding effects on rebuilding efforts after a disaster, it is important that policy makers understand the systemic reasons why government help so often goes awry, why private citizens are usually the best leaders of their own recovery, and the importance of crafting public policy in such a way that signal noise is kept to a minimum.¹¹

¹¹ The observations made in this policy comment are based on fieldwork conducted in the Gulf Coast region in February, March, April, June, and October 2006, including more than 100 in-depth interviews with people engaged in the rebuilding process.

A. COMMUNITY REBUILDING STRATEGIES

The problem of signal noise looms so large in rebuilding after Hurricane Katrina precisely because of the importance of the blocked signals. Were the signals sent by commercial and civil society unimportant to the rebuilding effort, public policy and the accompanying signal noise would have little negative effect on the recovery. However, communities in the Gulf Coast are relying upon the signals generated by their neighbors, friends, non-profit organizations, and commercial partners to make decisions about rebuilding. The reopening of schools and grocery stores, the resumption of church services, and calls for neighborhood association meetings are all seen by returning residents as signs of community rebirth. In the absence of policy-generated noise, these signals would be more easily read and thus speed the recovery process.

Communities that have demonstrated success in their redevelopment efforts have obviously had to deploy human, financial, and physical capital. Complementing these resources is another essential form of capital—social capital. Social capital resources are those resources embedded within networks of friends, neighbors, faith communities, clubs, krewes, businesses, and so on.

Redeveloping and deploying the complex mix of resources that make up social capital has proven vital to successful recovery. In particular, communities rebuilding after Hurricane Katrina are employing a variety of different social capital-based strategies, each of which serves an important signaling function.¹²

The most prevalent of these strategies is *mutual assistance*, by which storm survivors support one another by exchanging labor, expertise, shelter, child care services, and tools and equipment. Mutual assistance serves as a source of material support, but more importantly, it sends signals that members of a community are committed to recovery and helps restore the fabric of communities torn asunder by disaster. Such assistance signals residents who are considering returning to the area that other people will share the burdens and the risks of returning with them. It signals the community's return. Governments could ostensibly provide some of the material support that mutual assistance provides, but such aid would drown out the signals that residents desperately need and that help reestablish community in the true, rich sense of the word.

A second strategy is *charitable action*. Unlike mutual assistance, which relies on reciprocity, charitable action consists of one-way offers of

¹² These strategies are discussed and explored in much greater depth in Emily Chamlee-Wright, "After the Storm: Social Capital Regrouping in the Wake of Hurricane Katrina" (working paper, Mercatus Center at George Mason University, Arlington, VA, 2006).

SOCIAL CAPITAL AT WORK: TWO STORIES

Frank¹³ owns a hardware store that took eight feet of water during Hurricane Katrina although his house suffered only minimal damage. His manager was not so fortunate. The two of them have employed a mutual support strategy, using the social capital that comes from their working relationship, to get their store back online.

Frank: My house survived pretty decently. . . . Meanwhile, we've been housing five other people that are living with us now, 'coz their houses didn't. But you know, my manager [and] another couple have been living with us with two small kids So they've been living with us basically for the last eight months, which is unique at first. But we'd do it all over again if we had to.

Interviewer: Were you able to pay [your manager during this time]?

Frank: No . . . we haven't paid him a cent other than stuff that jobs we maybe did on the side to help pay cash so to speak, get money so to speak to survive.

For eight months Frank provided his manager a familiar (albeit a bit crowded), clean, proximate, and safe home, a particularly precious resource in the post-Katrina environment. On the other side of the coin, the opportunity for Frank to rely upon an experienced right-hand man, despite the inability to pay his usual salary, was surely just as valuable to Frank in his efforts to re-open his store.

Katrina devastated Marie's Mississippi home. But she and her neighbors banded together to work on one another's homes netting vital material benefits—and they rewove the social fabric in their communities by relaxing together as well.

Marie: And we worked together like, you know, at night. . . . I had a swimming pool above ground. My pool did not go down, and I felt like God left it there for a reason, because the whole neighborhood used it as a Jacuzzi. We would take the pump and . . . it turned and cleaned the pool. So here there's no gas, and we're running the pool. We were like, "Don't tell anybody we're using the gas for that pool." But I mean, you'd look out and then you'd say, "Oh hey," you know? [Marie smiles.] And to this day, there's still a bar of soap sitting on the side of our pool. And I think I'm going to leave it there. I really do.

¹³ This is a pseudonym to protect the interviewee described here. All quotations are verbatim.

direct assistance from individuals and private philanthropies largely outside the affected areas. Because charitable action is decentralized and hence nimble, nuanced, and able to respond effectively to individual and small group needs, it helps provide signals of how interested third parties wish to “invest” their financial, labor, or physical resources in helping others rebuild.

A third strategy is *commercial cooperation*, whereby commercial activity positively impacts a community’s ability to rebound. Like mutual assistance, commercial cooperation provides material support and signals that businesses—and hence goods, services, and jobs—are returning to a community. Commercial cooperation is vital in an area that has suffered widespread physical devastation and thus needs cleaning and rebuilding materials for physical recovery. Like mutual assistance, a spirit of enlightened self-interest drives commercial cooperation and provides a crucial element of recovery. As the manager of a large national home improvement supply store stated, “This is not really about sales. . . . We need our community, you know.” Commercial relationships that are taken for granted in a normal setting, such as access to grocery stores, banks, barbers, and hospitals, send crucial signals about sustainability when they return to communities after disaster. Government provision of the goods and services they provide delays the reemergence of the signals they send, which in turn delays recovery.

Finally, a strategy we call “*build it and they will come*” occurs when private citizens, business own-

ers, and community leaders create or redevelop a key community resource that might serve as the tipping point for residents and other businesses and organizations to return. For instance, in New Orleans East, the resumption of church services at the Mary Queen of Vietnam Catholic Church soon after the storm stimulated a rapid return of the Vietnamese community. In St. Bernard Parish, the opening of a unified school drew thousands of students and their families back to the community. By casting an entrepreneurial gaze at the resources available for redevelopment, community leaders and ordinary citizens seek to solve one crucial piece of the redevelopment puzzle, making it possible for many more to return and sending a strong signal that the community is on the rebound. Noise emanating from government policies can muffle these signals—or squelch them altogether—by failing to provide and enforce the rules of the game for rebuilding or creating rules that forbid or delay such re-openings either through regulation, economic distortion, or disrespect for private property rights and contracts. Similarly, rigid adherence to regulatory structures ill-suited to the post-disaster context creates noise that affects these signals.

Through these and other patterns by which social capital is deployed, individuals in post-disaster contexts are able to use signals generated within markets and civil society to make intelligent decisions about how, where, and when to rebuild their communities and their lives. It is for this reason that policy makers must craft both pre- and post-disaster policy in a manner that allows

for these signals to emerge and not unintentionally create signal noise that drowns them out or distorts them to the point that they can no longer effectively guide people in their efforts to make informed and responsible decisions. The robustness of signals emanating from markets and civil society depends crucially upon the social rules we tend to take for granted—rules of private property, the rule of law, contract enforcement, and basic rights of self-determination. As crucial as these rules are for day-to-day interaction, they are all the more important to ensure in the wake of disaster.

Providing this assurance is a critical way government at all levels can reduce signal noise. It is not enough to quickly and credibly institute bad policies that undermine community rebuilding. Beyond this, policy makers must consider the ways in which their efforts to help disaster victims often unintentionally distort the signals people need to effect a successful recovery effort.

In the next section, we discuss some of the ways in which, and the reasons why, government-led recovery efforts tend to drown out the otherwise clear signals that individuals, families, and communities generate through their commercial and civil interactions.

B. HOW SIGNAL NOISE AFFECTS DISASTER RECOVERY

Clearly there are things that governments can do to foster an environment in which meaningful signals emerge. By enforcing property rights and contracts or restraining inflation, for example, governments help to clarify and enforce “the rules of the game” for our daily interactions with one another. When good rules such as these are clear and well-enforced, the signals that emerge in markets and other social interactions tend to be robust and allow the interactions between members of society to be more fruitful and peaceful. Citizens of liberal democracies tend to take these “rules of the game” for granted, but they are vital to our daily interactions and overall well-being.

While governments can help establish the context in which this signaling and discovery takes place, governments themselves are generally not good at learning what people want, how to address these wants, and the terms by which people work together to coordinate their often competing interests. For instance, the government is not good at discovering what restaurants people like to frequent, what types of jobs employers will require next year, or if homeowners prefer

Formica or granite countertops in their kitchens. Because of this, people operating within liberal democracies make these decisions in the marketplace and use prices as a means for discovering the best use of resources. This “discovery process”—determining what goods and services are needed and how best to provide them—spreads good ideas among individuals and their communities and is vital to overall social coordination.¹⁴

The rebuilding process after a natural disaster is a discovery process writ large. People whose homes have been damaged or destroyed need to find supplies and contractors to help them with repairs. Businesses in turn are searching for employees and materials. Non-profit and charitable groups seek opportunities to coordinate the assets of donors and volunteers with the needs of disaster victims. On a deeper level, families and businesses are trying to determine how and whether they should rebuild—or whether they should start anew elsewhere. Similar discovery occurs every day in every community in the country, but after a disaster, the process becomes more prominent as questions elevate from the quotidian (“Where should I get my car’s oil changed?”) to the more profound (“How do I rebuild my home?”). It is, however, fundamentally the same process that coordinates our daily lives.

Because the political process is not a good instrument for gathering this “on the ground” knowledge, its outcomes can negatively impact decision-making by people recovering from disaster. Public policy changes affect the signals that victims and people on the ground read and interpret, which in turn affects their ability to make good decisions.

Two key areas where public policies can create signal noise after a disaster are: (a) through the planning and regulatory processes and (b) through provision of goods and services that could otherwise be provided through the market. We now consider each of these in turn, examining specifically their implications on the rebuilding process in New Orleans and along the Gulf Coast.

B.1 NOISE IN THE RULES OF THE GAME: PLANNING AND REGULATION

Planning

After a natural disaster, residents need assurance that policy makers will respect their property rights and rights of self-determination and quickly explain what changes to the institutional “rules of the game,” if any, residents will encounter as they put their lives, homes, and businesses back together. To the extent that a natural disaster presents an opportunity to get rid of the mistakes of the past and try new ideas, that opportunity

¹⁴ For more on the role of markets and entrepreneurship in the discovery process, see Israel M. Kirzner and Frederic Sautet, *The Nature and Role of Entrepreneurship in Markets: Implications for Policy*, Mercatus Policy Series, Policy Primer No. 4 (Arlington, VA: Mercatus Center at George Mason University, 2006).

must be based on the decisions of individuals in the affected communities.

Because of government's inability to discover information effectively, especially after a crisis, broad government re-planning after a disaster can drown out the signals generated through the real discoverers of knowledge—residents, their neighbors, civic organizations, and businesses operating within the market context. Attempts by governments to rebuild (or even re-engineer) communities after a disaster slow the recovery process and frustrate the people they are trying to assist by making it more difficult for residents and business owners to make informed and responsible decisions.

The political process is by its nature slow-moving. It takes months or years for relief funds to trickle down into the hands of those in need, and the policy making and execution process is arduous and complicated, as exemplified by FEMA's failure to quickly revise flood insurance rate maps (FIRMs), which has left people unsure whether they should rebuild homes as before, elevate them three feet, elevate them nine feet, or abandon rebuilding altogether. Information about flood risk and the implications these risks have for public policy and insurability are crucial to rebuilding efforts. Without clear information on flood risk, residents and business owners cannot assess the costs of rebuilding, and recovery will slow or halt altogether.

“FEMA, they still haven't come up with the maps that show certain areas. So you are going to place money on false hope. New Orleans is going to wind up flooding again.”

*—Volunteer leader,
Ninth Ward, New Orleans.*

New Orleans provides an excellent example of how government planning can stall rebuilding and the discovery process it entails. In October 2005, Mayor Nagin created the Bring New Orleans Back Commission (BNOB) to create a plan for rebuilding the city. Though BNOB's Urban Planning Committee assured New Orleans residents that they would have representatives on the Committee, the driving paradigm was clear: redevelopment of the city could not rest in the hands of private citizens. Instead, the Crescent City Recovery Corporation (CCRC) would orchestrate it through a comprehensive plan. CCRC would have “the powers to receive and expend redevelopment funds, to implement the redevelopment plan, to buy and sell property including use, as a last resort, of the power of eminent domain.”¹⁵

¹⁵ See <http://www.bringneworleansback.org> for more details about this planning process.

The wisdom of putting government “in charge” of the redevelopment effort and the assumption that it would take billions of federal dollars to do it were never questioned. The task before the BNOB was simply to figure out what and how to plan and what powers state and local policy makers must grant to the CCRC.¹⁶

The recommendations that came out of the process included reducing the city’s “footprint” and transforming some neighborhoods into green space and industrial centers.¹⁷ In its \$18 billion plan, the Commission carved the city into thirteen planning districts. A committee would create a redevelopment plan for each district and determine the future viability of neighborhoods within the district. It was not clear that the planners even knew how to define a neighborhood, much less plan one, and residents frequently found the committee’s definition of their neighborhood at odds with their own.

In order to be considered a “viable neighborhood,” the planning committee had to demonstrate that fifty percent of the residents in a neighborhood had returned or were committed to returning. Neighborhoods that failed to meet the threshold of viability were candidates for forced

buyouts. During the four month planning period, the Commission recommended a moratorium on rebuilding permits in neighborhoods that had at least two feet of flooding—approximately 80 percent of the city. Though the public outcry led Nagin to reject the building moratorium, the underlying paradigm of centralized redevelopment planning was not and still has not been rejected. In fact, in May 2006, Nagin announced that the basic blueprint that the BNOB devised would set the agenda for his second term.

Despite the best intentions of the BNOB Commission and elected officials, the shifting rules of the game created signal noise that proved deafening to the average New Orleanian. In New Orleans East, for instance, some communities were well into rebuilding when Nagin suggested that the city might not provide any municipal services, only to rescind that suggestion later. Nagin’s remarks were extremely serious to the homeowner rebuilding her greatest investment or to the business owner deciding whether to remain in New Orleans or relocate. The only way to truly discover whether a neighborhood is a viable candidate for rebound is to make the rules of the game as clear as possible and let people try to rebuild. If they are unwilling to do so, at least

¹⁶ In order to ensure that the CCRC had the authority it required to carry out the redevelopment planning effort, the BNOB recommended “tak[ing] away from the City Council the ability to reverse decisions by the city Planning Commission and let appeals be handled by the court. Both moves would need voters to amend the city charter.” Staff Reports, *New Orleans Times-Picayune*, January 12, 2006.

¹⁷ Martha Carr, “Rebuilding Should Begin on High Ground, Group Says,” *New Orleans Times-Picayune*, November 19, 2005.

with flood maps in hand, property rights assured, and ideally a credible commitment to whatever level of flood protection will (or will not) be provided, property owners have the option of selling to those who are willing to try. Absent those stable rules of the game, any viability study will fail—and it will waste precious time in the process.

After the failure of the BNOB Committee, the Greater New Orleans Foundation (GNOF) launched a rebuilding planning process that makes greater use of local knowledge and empowers communities more than the previous planning process did. It remains to be seen whether this process will work. But the costs of the first failed process have been massive: nine wasted months, millions of wasted dollars, and unquantifiable but significant distortions to the local market as citizens navigate not just the damages of the storm, but also the vagaries of the political process.

Questions about the strength of the levees being rebuilt—and the failure of the government to give

a clear, consistent answer on this question—have further stymied rebuilding. Elected officials and bureaucrats have made contradictory and frequently uninformed statements about how, where, and when the U.S. Army Corps of Engineers would rebuild the levees, leaving residents in limbo when making decisions about rebuilding. The unknown future of the Mississippi River Gulf Outlet (MRGO or “Mister Go”) similarly exacerbates this uncertainty. Without knowledge about whether their homes and businesses will receive Category 2 or Category 5 levee protection, residents have been unable to make informed choices. The government’s previous failure to build levees that performed to their advertised standards has exacerbated this uncertainty. In short, government action has created and is continuing to create a noisy decision-making environment, leaving many businesspeople and residents in a state of indecision and slowing the pace of post-disaster recovery.

The signal noise that the rebuilding planning efforts generate is a key reason that rebuilding in

“I want to know that the levees are strong enough to withstand the next category five or three or four—whatever comes through—and I want to feel confident. I’m annoyed, but you’re hearing all these different stories. The Corps, they say one thing, and then other people say, ‘Oh, that’s not true’—you know it is all confusing. You’re really nervous because you don’t know who to believe and who is telling the truth. . . . I’d like to hear from the engineers. I don’t want to hear from politicians.”

—Elementary school principal, Mid-City, New Orleans.

New Orleans has been so sluggish, especially compared with neighboring parishes and Mississippi counties that did not institute a forced political planning process. Rather, these communities generally allowed markets to re-emerge and permitted knowledge about the rebuilding process to flow from individual decisions.

Regulation

Government disaster relief is by its very nature bureaucratic and regulated. The sheer amount of money and number of people involved make it virtually impossible for policy makers to design it any other way; the alternative would be massive and widespread fraud and even fewer resources flowing to those who need them most. This regimented structure can stifle or, at the very least, frustrate local leadership driving community redevelopment, generating signal noise that hampers a community's ability to recover quickly.

The case of schools is particularly illustrative. Schools are a key resource for a community and their reopening—a “build it and they will come” strategy (see Section B)—sends a vital signal about the future of a community. Parents are unlikely to see their communities as viable places to rebuild in the absence of schools. Unfortunately, when social entrepreneurs and school administrators try to reopen schools after a disaster, they often face high bureaucratic hurdles, which retard the speed of recovery as parents await clear signals about the future of education.

Doris Voitier, superintendent of the St. Bernard

Parish Unified School District, pledged to reopen a school just eleven weeks after the storm. Initially, Voitier assumed that FEMA's newly created task force on education would lend support to her effort to redevelop the school district, but she soon learned that FEMA's role was not so much to lend support as it was to regulate the decisions coming out of her office, generating noise and uncertainty for Voitier and St. Bernard Parish parents. FEMA officials came to enforce requirements on historic preservation, environmental protection, and section 404 and 406 hazard mitigation. But none had any advice for how to reopen her schools.

Voitier reports, for example, that she has had to become an expert on the Stafford Act, the primary act detailing federal response to natural disasters, as it defines the narrow field within which she can act. Or as one Mississippi hospital administrator put it after describing the differences between Category B, Category E, and Category H restoration and mitigation, “that's why administrators keep our jobs is because we are supposed to try and figure out the regulations [sic].”

Voitier's efforts to operate within the guidelines of the Stafford Act were not enough to keep her in FEMA's good graces. After registering many more students than she initially anticipated, Voitier ordered two additional trailers to use for classroom space. The trailers that were eventually delivered were deemed unsuitable for student use because two doors in each trailer were too close together to meet local fire code. While she went

through several layers of bureaucracy to have the door openings widened, she received permission from a FEMA official to put washers and dryers in one of the unused trailers so that the teachers living in the school's parking lot would have a place to wash their clothes. Soon after, FEMA rotated that representative out of the area. The new representative subsequently placed Voitier under investigation for "misuse of federal property."

The signal noise caused by bureaucratic rules that Voitier encountered—an effect of the wavering rules of the game—slowed her ability to expand the school's capacity to meet the needs of all returning children, which generated further signal noise to parents deciding whether to return to St. Bernard Parish, who needed to know whether they could enroll their children in school. In this way, the signal noise generated in the regulatory environment fed upon itself, multiplying exponentially and slowing recovery.

Similar to the bureaucratic rigidities embedded within federal relief agencies, state and local regulations can also have a stifling effect on civil society's ability to respond in the months following a crisis. After the storm, many parents faced the daunting task of navigating the system of relief services and beginning the demolition process while caring for young children. The temperatures

were high, stress levels were higher, and the lines were long. But professional childcare was in short supply. Some daycare providers did what they could to open their doors to disaster victims in the weeks and months that followed, but state regulators fined them for failure to comply with child-teacher ratios and other requirements.

The parents sent a clear signal—a demand for much needed, safe, and affordable childcare. Childcare professionals easily and correctly read their signal. But the regulatory environment, which was not crafted for a post-disaster context, caused signal noise that prevented childcare professionals from meeting this need.

Most regulations in a society are adopted in times of relative calm. Even under the calmest circumstances, it is often difficult to assess the benefits and costs of a regulation.¹⁸ But in the aftermath of a disaster, however, the calculus of regulation changes dramatically, and assessments conducted during calmer times may be completely inappropriate guides for establishing sound regulatory policy. Rigid adherence to a regulatory code that applies under normal operating conditions can strangle the organic, grassroots recovery efforts that local leadership, voluntary organizations, and businesses undertake. For instance, a limit on the number of children that one childcare worker can

¹⁸ For more on regulation, see Susan Dudley, *Primer on Regulation*, Mercatus Policy Series, Policy Resource No. 1 (Arlington, VA: Mercatus Center at George Mason University, 2005), http://www.mercatus.org/Publications/pubID.2331,cfilter.0/pub_detail.asp.

supervise may be sensible under normal conditions, but after a disaster, the demand for safe and affordable childcare can change dramatically. It may make sense, then, to change or temporarily suspend some regulations in order to speed recovery and a return to more normal conditions.

B.2 NOISE THROUGH THE “FEMA ECONOMY”

Throughout most of American history, local governments and private charitable associations provided care for victims of disaster.¹⁹ Indeed, it was not until 1950 that Congress passed its first law dealing with federal disaster response, and response remained very limited (and mostly focused on responding to a nuclear war) until Congress created the Federal Disaster Assistance Administration in 1974 and then FEMA in 1979. The past thirty years have seen the federal government take an increasingly active role in providing emergency relief supplies to victims of disasters. Simultaneously, the amount of assistance—and critically, the length for which it is provided—has likewise increased.

In the wake of disaster, the government has a key role to play in re-establishing and enforcing the rules of the game that minimize signal noise and allow a robust response to the disaster by civil and commercial society. By ensuring private property rights and enforcing contracts, for example, the process by which property owners discover the

new value of their homes and businesses can unfold swiftly. To this end, it is important for governments to provide police protection and courts that help to enforce these rules of the game. But when the government gets in the business of providing the goods and services ordinarily provided through markets—such as trailers and direct sources of income through extended unemployment compensation to storm victims—well-intentioned policy interventions can create significant signal noise and thereby slow recovery. In this lies a paradox: government policies designed to help by providing recovery assistance may actually harm the intended beneficiaries.

The government’s provision of goods and services long after immediate needs have passed creates what one New Orleanian referred to as a “FEMA economy,” the expansive and distortionary effects of federal disaster relief on the local economy, including the labor and housing markets.

For example, many businesses trying to reopen have found it difficult to attract employees. In part, this is due to the fact that many people simply haven’t returned to the affected region. But the repeated extension of unemployment benefits has exacerbated this problem: despite the availability of jobs and the need for employees, the federal government continues to pay people not to work. Further, the premium wage that government relief agencies pay

¹⁹ Rutherford H. Platt, *Disasters and Democracy: The Politics of Extreme Natural Events* (Washington, DC: Island Press, 1999).

low-skilled workers crowds out private employers from the labor market, stunting the speed of recovery. Service-based companies find the labor shortages particularly daunting as they attempt to bring operations back on line. As one business owner noted, “You’re competing with FEMA; you’re competing with everybody. The contractors that are doing debris pick up and stuff, they are paying big bucks. They are paying \$12 [to \$15] an hour to stand behind a truck with a little [“stop”] sign.”

According to a study released in February 2006, two thirds of firms in the affected region had trouble recruiting workers, and media accounts affirm the recruitment woes of employers.²⁰ And yet in March 2006, Congress extended unemployment benefits for another 13 weeks beyond the 26 weeks of unemployment benefits authorized by the Stafford Act.

The FEMA economy also exacerbates the lack of affordable housing. FEMA workers allotted \$1,200 per month for housing effectively crowd out many low-income residents who receive \$550-\$650 in FEMA rental assistance. Rents in many affected areas of New Orleans have almost

doubled since before the storm.²¹ This is due largely to the decrease in the supply of housing—50.8 percent of rental housing in Orleans Parish suffered severe flood damage or total destruction²²—but the thousands of federal and state relief employees in the city have exacerbated the problem and kept low-income New Orleanians out of their hometown.

To some extent, these consequences may be unavoidable. To the extent that swift debris removal and other key public services are deemed top priorities, wage premiums will certainly facilitate the process. But the longer FEMA workers stay, and the more relief work is treated as a public works project rather than the short-term provision of an essential service, the longer these distortions will persist. As one Mississippi resident observed,

There’s no reason for a business to open up that provides any kind of food service if right down the street you get food [for free] It was necessary for [government] help to be scaled down so our businesses could come back in, start giving us a tax base, start giving these people an incentive to get a job, to work, to get back to normal. That was essential.

²⁰ Ellen Wulforth, “US Hurricane-Area Firms Face Labor Shortage,” *Reuters*, April 5, 2006; “Survey of Compensation Practices in Area Affected by Hurricanes Dennis, Katrina, Rita, and Wilma,” *Salary.com*, February 28, 2006; Brett Anderson, “Feast or Famine? Katrina takes a big bite out of business, but New Orleans restaurants are fighting back,” *New Orleans Times-Picayune*, June 11, 2006.

²¹ Jeffrey Meitrodt, “Rising Rent,” *New Orleans Times-Picayune*, October 15, 2006.

²² Authors’ calculations based on data from U.S. Department of Housing and Urban Development, *Current Housing Unit Damage Estimates: Hurricanes Katrina, Rita, and Wilma*, February 12, 2006, as revised April 7, 2006, p. 23, http://www.huduser.org/publications/destech/GulfCoast_HsngDmgEst.html

“We couldn’t hire social workers because [FEMA] was using them all. We couldn’t hire people, or our people would go to work for FEMA. But it’s these ridiculous prices that weren’t the going rate on the local level. But why they didn’t come to us and say, ‘Okay, you’ve been here for 40 years, you know all these people’? But, no, they didn’t.”

—State government official, Harrison County, Mississippi.

The sooner federal agencies scale back their operations, the sooner local markets and civil society will step in. And the sooner this occurs, the more effectively a sustainable rebuilding process can begin. The longer policy makers extend unemployment benefits, the more difficulty communities will have attracting residents back to work in local businesses—and the longer the recovery process will take.

Large government rebuilding packages also create signal noise because of the length of time it takes to distribute funds and the haphazard manner in which distribution occurs. In its first four months, the Louisiana Road Home Program has awarded fewer than 1,400 grants, and officials are struggling with a backlog of about 79,000

applications.²³ And as of November 11, only 22 awardees have actually received cash.²⁴ Mississippi’s rebuilding program, fully funded by Congress in December 2005, had issued only 41 checks as of the end of August 2006 to a pool of over 17,000 applicants; that is, less than 0.25% of claimants have received relief.²⁵ One Mississippi official explains, “Of course it’s been eight months since Congress approved this money, but we haven’t developed the systems and plans . . . to actually administer the program.”²⁶

Large aid packages invite corruption and incompetent management by public officials, which makes it more difficult still for civil society and market institutions to read accurate signals.²⁷ The inconsistent implementation of such programs

²³ Bruce Nolan, “Blanco Tries to Light Fire Under Road Home Plan,” *New Orleans Times-Picayune*, November 7, 2006.

²⁴ Leslie Eaton, “Slow Home Grants Stall Progress in New Orleans,” *New York Times*, November 11, 2006.

²⁵ John Ydstie, “Federal Money Trickles to Katrina Homeowners,” *National Public Radio Morning Edition*, August 30, 2006.

²⁶ Ibid. Scott Hamilton was the state official speaking.

²⁷ Peter Leeson and Russell Sobel, “Weathering Corruption,” (working paper, Mercatus Center at George Mason University, Arlington, VA, 2006).

only adds more noise to a situation already steeped in uncertainty. For many residents, the initial announcement of large scale assistance signaled to them that they should hold off on their rebuilding plans until they received payment, continuing their state of limbo.

Once the immediate crisis point of a disaster has passed and charities, markets, and governments have ensured that basic human needs such as food and shelter are met, government provision of goods normally provided privately creates distortions that inhibit recovery.

In contrast to governments, markets are highly effective mechanisms for coordinating the provision of goods and services; market signals share information about what people need, want, know, have, like, and value. Through these signals people learn how to efficiently produce a variety of goods and services that others need or want. It is for this reason that markets provide the vast majority of goods and services that people want or need. Additionally, the rapid ability of markets to address changing circumstances helps make communities resilient, a key feature of recovery with which signal noise interferes. From daily needs, like food and childcare services, to large purchases, like cars or houses, market signals effectively share information and enable us to fill a variety of needs without any government plan. Markets are a vital part of daily life, and in the aftermath of a storm, their re-emergence is critical to community redevelopment. Indeed, no meaningful recovery can occur without them.

The signals emerging from commercial society provide two key indications to people engaged in the rebuilding effort: they demonstrate what goods and services will be available to returning residents, and more importantly, they serve as a barometer of the long-run prospects of the community. People may trust these signals more than the signals emanating from the political sphere because commercial signals emerge from actual reopenings and commercial transactions rather than from hints or promises from elected officials that may be reneged upon or take months or years to materialize. Concrete, material steps instill confidence, while vague suggestions and about-faces destroy it.

One Mississippi resident spoke of the importance the reopening of national retail stores and fast food restaurants had for community morale:

It was Wal-Mart under a tent. We were all thrilled. Oh, we can go buy pop, or we can get, you know, our essentials. So we were really happy about that. That was a forward motion. And then Sonic opened. We had the busiest Sonic in . . . the whole United States. It made more money in a shorter period of time than any Sonic did for a year in the United States. Amazing. It was like fine dining. Ooh, this is wonderful, you know, 'coz there was nothing else then. There was [sic] no stores. There was nothing that was even halfway resembling normal. I guess when businesses open up and they start being fully operational, it reminds us what normalcy used to be like. . . . Like Rite Aid [opened]

and it was a one hundred percent Rite Aid. . . I didn't go in to buy anything. I just went to walk around and be normal.

Normality is a crucial concept—without the sense that the community is returning to normal, meaning that the basic conveniences of life are provided for in customary ways, rebuilding becomes a much more costly and risky proposition. One retail manager further explains this concept:

If you don't do something to help this community and give them a place to buy groceries and give them a place to buy the necessities of life to rebuild their lives . . . it probably would not be worth your while to [rebuild]. . . . Granted, you know, our customer base probably was cut more than in half. But it probably would be decreasing today had our store and other businesses not decided, you know, just take a stance and come home, you know, and build this thing, and get it back up and running as fast as they can. . . . You have to take a stance, because you have a vested interest in the community. You have a home.

The recovery of commercial and the recovery of civil institutions go hand-in-hand; employers are

lost without employees, and customers are in need of commercial services. Without stores, factories, services—and the jobs and products that they provide—no community can truly recover.

Because of the centrality of markets to meaningful recovery and functioning communities, it is vital that after a disaster, policy makers respect and enforce private property rights and the contracts that were in place before the disaster. If, in response to the disaster, governments deem it necessary to change building codes, elevation guidelines, or other regulations that impact how, where, and when rebuilding can take place, such changes must be made in ways that do not violate the basic freedoms of private property and the rule of law. Further, to the extent that they are necessary, such changes must be made clearly, quickly, and credibly.²⁸ Consistency and credibility of rebuilding codes are crucial. Start-and-stop decisions create signal noise, so it is vital that policy makers avoid changing the rules midstream. Finally, well-meaning government policies that attempt to substitute for the market economy and civil society create signal noise that confuses returning residents and business owners, thereby reducing the speed and increasing the cost of the recovery effort.

²⁸In the context of post-Katrina New Orleans, the lack of either local leaders or the U.S. Army Corps of Engineers to state clearly and credibly how, when, and where levees will be rebuilt has been a major roadblock to rebuilding. This has been further compounded by the failure of the Corps of Engineers before the hurricane to provide accurate estimates of the quality of the levees and FEMA's reliance on incorrect information from the Corps in crafting flood insurance rate maps (FIRMs) that failed to appropriately assess the risk of flooding in many parts of Orleans and St. Bernard Parishes. Because of the history of incompetence and a general distrust of FEMA and the Corps of Engineers, a radical rethinking of flood protection programs may be in order over the coming years.

C. POLICY IMPLICATIONS

C.1 PROVIDE QUICK, CLEAR, AND CREDIBLE COMMITMENTS ABOUT WHAT THE GOVERNMENT WILL PROVIDE AND WHEN.

The best thing that policy makers can do to help communities respond to disaster is to ensure that policy makers respect property rights and the rule of law to allow individuals, communities, and civil society organizations to manage the rebuilding themselves. To the extent that the government deems it necessary to adjust rules pertinent to the rebuilding process, such rules must first respect the basic freedoms that private property and the rule of law provide. Further, such rule changes must be made quickly, clearly, and credibly. Government can support the rules of the game necessary for individuals and communities to recover by acting as an umpire—providing police for protection and courts of law for dispute settlement and, most importantly, not changing the rules in the middle of the game.

To be sure, some rules of the game, such as “should the government provide levee protection?” will be

fraught with controversy. The questions of whether the levees ought to be rebuilt, what level of protection ought to be provided if they are, and whether property owners ought to pay the full costs of insuring their homes and businesses deserve serious deliberation that we cannot render here. However, as long as government manages these systems, its failure to decide clearly and expeditiously what it will do and to carry through on its commitments will perpetuate the limbo in which so many storm victims find themselves.

With the rules of the game in place and property rights assured, the recovery process can begin in earnest as residents and business owners judge how and when to rebuild. If policy makers draw out the decision making process about key rules and policies, the signals generated by civil and commercial society are likely to become noisy and hence less clear and useful to those engaged in the rebuilding process. Rebuilding must be organic, stemming from the grassroots, in order to be sustainable, and only dispersed decision makers reading the signals generated by those around them can manage this process.

“They should have a decision from Congress as to what level of protection they’re going to authorize. . . . What do people have to do if they’re going to rebuild? You know, to what elevations and to what . . . because if there’s no flood protection, the levees aren’t going to be rebuilt, and you can’t get affordable insurance on your house, they’re not going to come back.”

—School administrator, St. Bernard Parish, Louisiana.

C.2 CREATE IN ADVANCE AN ALTERNATIVE REGULATORY REGIME SPECIFIC FOR POST-DISASTER ENVIRONMENTS, AND DEVOLVE POWER OVER THE REBUILDING EFFORT.

One way to facilitate the production and execution of clear rules of the game is to have disaster-appropriate rules and regulations written before the onset of crisis with a clear trigger for execution. Such “regulatory preparedness” would reduce the uncertainty that stems from the slow-moving political process and would establish alternative regulations for the post-disaster context when, for instance, child-to-adult ratios in day care centers, normal debris disposal procedures, and pollution control gasoline formulations may not be appropriate.²⁹ Ideally, these rules would include a clause for automatic execution after, for instance, a presidential or gubernatorial declaration of a major disaster. In many cases, bureaucrats in the Gulf Coast have had to bend or break the rules in order to make progress in recovery efforts. An alternative regulatory structure recognizing the different costs-benefit calculations in the post-disaster context would reduce non-compliance and help ease some of the bottlenecks that slow recovery. Most importantly, it would make it easier to provide the quick and clear signals that communities need to recover and reduce the signal noise associated with changing regulations on the fly or selective and unstable enforcement on the ground.

An automatic trigger for such a regime reduces the ability of special interests to attempt to alter the process or change individual rules. Implementing the alternative set of regulations automatically and as a complete package speeds enactment of the alternative regulatory regime and ensures that people know before a disaster what to expect in its aftermath. An automatic trigger would also be in line with existing policies; a presidential disaster declaration already triggers dozens of automatic responses under the Stafford Act and other legislation.

Local ownership of the rebuilding process is critical. Federal response should not erect roadblocks to competent local leadership, but should instead support and inform effective decision making on the ground. To the maximum extent possible, recovery efforts should be managed as locally as is feasible—as close to those with the needs and relevant knowledge as possible.

Congress should shift the primary responsibility of relief agencies from one of regulatory oversight to one of support and advice. The provisions articulated in the Stafford Act, and the narrowness with which FEMA representatives frequently interpret these provisions, unnecessarily tie the hands of local leadership. While policy makers may deem it necessary to enforce some general guidelines for safety and accountability, local

²⁹ For more on gasoline regulations and the federal government’s successful response, see Alastair Walling, “The Katrina Success Story You Didn’t Hear,” *Regulation*, Spring 2006.

leadership also needs the flexibility and discretion to make marginal choices about how relief funds are spent.

C.3 AVOID POLICIES THAT DISTORT LOCAL ECONOMIES AND HAMPER CIVIL SOCIETY REBUILDING.

After a disaster, elected officials should not respond by attempting to make whole the victims of the storm through targeted and bureaucratic initiatives. The sentiment is noble, but the action is impossible. Because they lack the ability to discover knowledge of what people need, when they need it, and how it is best delivered, governments simply cannot provide the goods and services that are vital for rebuilding. When governments do try to intervene to provide these goods, they end up creating signal noise that slows the recovery process. Additionally, they introduce an element of uncertainty that makes it more difficult for individuals, families, and communities to rebuild.

Social capital and the signals provided by civil and commercial society, supported by property rights, freedom of contract, and the rule of law, are crucial to rapid and sustainable recovery efforts, so policy makers must evaluate policy interventions to ensure that they do as little harm as possible to organic response efforts. For this reason, providing any relief that policy makers deem necessary through quick and unrestrictive

means is vital. The more restrictions and tests placed on relief, the slower it will arrive and the more signal noise and economic distortion it will cause. In this vein, one-time cash payments are preferable to means-tested continual assistance.

Further, housing vouchers are preferable to FEMA trailers. Recipients could use voucher funds to rent an apartment, renovate a damaged property, serve as a down payment on a new home, or purchase a small modular home that they can later expand such as a “Katrina Cottage.”³⁰ Such a policy would be vastly more efficient and humane than temporarily providing everyone with a FEMA trailer and would inspire a wide range of market responses to meet the housing needs of disaster victims. To further minimize bureaucracy, policy makers should not means-test vouchers. It should distribute them using simple and straightforward criteria—the fewer criteria the better.

Policy makers must recognize that it is not just atomistic individuals, but entire organic social structures, that recover after a disaster. Markets and civil society institutions are vital aspects of a functioning society, and policies must allow their expedient and thorough recovery. Communities are not sustainable without the recovery of retailers, factories, service providers, and the jobs that these businesses create. Policy makers should avoid the temptation to implement targeted pro-

³⁰ For more on Katrina Cottages, see Witold Rybczynski, *Slate*, March 31, 2006, <http://www.slate.com/id/2138981/>

grams designed to spur such redevelopment. By far the best course of action is simply to establish quickly rules of the game that will allow social structures to rebuild internally.

It is vital that elected officials avoid signaling any policy changes that have not been deliberately considered, particularly for their unintended negative consequences. If they bear even a hint of government sanction, cavalier proposals that suggest that policy makers may not honor individual property rights will create unnecessary and catastrophic uncertainty, not just among those most directly affected, but also among neighboring communities and potential investors. Just as an ill-considered comment from the Chairman of the Federal Reserve Bank can have massive effects on the stock market, a poorly considered utterance from a mayor or governor can cause people to radically rethink their plans in the wake of a disaster.

Finally, planning authorities must stay out of the business of picking winners and losers in the post-disaster economy and instead restrict their involvement in economic redevelopment to that of the neutral umpire. To the extent that local, state, and federal authorities are engaged in redevelopment planning (an engagement that should be minimal, clear, and credible), their plans should aim to produce as little signal distortion as

possible by offering, for example, general tax credits for all business, rather than targeting particular industries or businesses that existed before the disaster.

CONCLUSION

After a disaster, it is natural for people to clamor for quick action. Because elected officials respond to political pressure, they tend to do what is easiest: promise large sums of money to help fix the problem and develop radical new plans for affected areas. But while these policies may appeal to voters and to elected officials who want to “do something,” they are not ultimately conducive to helping communities rebuild. Well-intentioned policies that appear at first glance to be helpful to those in need may have unseen costs that can have significant negative effects on recovery.

Individuals rebuild around one another. For this reason, it is vital that policy interventions free individuals to deploy their social capital as an asset in rebuilding.³¹ Indeed, social capital functions best in a market setting backed by the rule of law and respect for property rights, as it allows civil society actors (including individuals, non-profits, churches and religious groups, community associations, and businesses) to generate the signals needed for recovery—signals that respond quickly to new information and oppor-

³¹ Emily Chamlee-Wright, “After the Storm: Social Capital Regrouping in the Wake of Hurricane Katrina,” (working paper, Mercatus Center at George Mason University, Arlington, VA, 2006).

tunities and that result in superior outcomes to top-down plans. Because of the importance of social capital in reconstruction efforts, governments must resist calls to impose order on the decentralized process of community, economic, and philanthropic discovery. Signal noise created when governments consistently shift the rules of the game impacts the ability of communities to utilize their social capital, which affects the sustainability of rebuilding.

After a disaster, public outcry places tremendous pressure on governments to act, but if policy mak-

ers authorize large expenditures and new programs without consideration of negative unintended consequences of their decisions, the effects may cause serious harm. After immediate human needs are met, governments must stand back and allow the rebuilding process to unfold organically. Communities are highly resilient in the face of disaster, and social capital is a vital asset to recovery. Success depends on the ability of individuals, families, and communities to read the appropriate signals about how to respond to best fit their particular needs. Cities are built organically. They must rebuild that way as well.

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POLICY COMMENT No. 19

**THE ROAD HOME:
Helping Homeowners in
the Gulf After Katrina**

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MAY 2008

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**THE ROAD HOME:
Helping Homeowners in the Gulf After Katrina**

EILEEN NORCROSS
ANTHONY SKRIBA

EXECUTIVE SUMMARY

Following the destruction wrought by the 2005 Gulf Coast Hurricanes, Louisiana and Mississippi instituted disaster recovery programs for homeowners. Louisiana's disaster recovery program, the Road Home program, is "the largest single housing recovery project in U.S. history." It is also mired in controversy with a record of slow payouts, confusing and conflicting policies and goals, and extremely frustrated applicants.

This comment explores Road Home's policy goals and design, placing them in the context of the destruction wrought by the hurricanes and the role of insurance and government before and after a disaster. It then contrasts Road Home's goals and design with the policy goals and design of Mississippi's Homeowner Assistance Program.

Mississippi's clearer eligibility criteria and the prioritization of applicants allowed for faster progress than in Louisiana. Louisiana's decision to distribute funds widely (both geographically and temporally) and without regard to the severity of damage has contributed to a slower recovery in neighborhoods that experienced the full force of flooding. Furthermore, Louisiana's decision to use Road Home as a community development program by assigning exit penalties to those who do not return to their former homes has limited the personal autonomy of those most affected by the storms and may lock them into highly detrimental situations.

Clearly defining culpability and determining eligibility is vital in structuring disaster assistance. Road Home's failure to do this could be catastrophic for the long-term recovery of both Louisiana and the evacuees.

THE ROAD HOME: Helping Homeowners in the Gulf After Katrina

INTRODUCTION

THE 2005 GULF Hurricanes destroyed or damaged more than 300,000 homes in five states.¹ Entire communities were abandoned, and the storms left many homes unsalvageable. Because damage in Louisiana was particularly acute, helping homeowners became an early recovery policy goal. Acting through the newly established Louisiana Recovery Authority (LRA),² the Office of the Governor directed \$6.9 of \$10.4 billion in federal Community Development Block Grant (CDBG) funds to create the Road Home program, “the largest single housing recovery program in U.S. history.”³

After the Department of Housing and Urban Development (HUD) and the Louisiana legislature approved Road Home, LRA awarded a private firm ICF International a \$756 million contract to manage the Road Home program. Road Home began accepting applications in August 2006, one year after Hurricane Katrina hit Louisiana.⁴ This amount was later increased to \$912 million in the final weeks of Governor Kathleen Blanco’s administration.⁵

Road Home was designed to serve as more than a disaster compensation program; it was designed to function as both planning and housing policy. The program aimed to simultaneously compensate victims, re-create existing neighborhoods by awarding larger sums to those choosing to stay in Louisiana, and develop affordable housing options. The program targeted a broad population, extending eligibility to those who suffered wind damage (an event typically covered by homeowners insurance).⁶

The program’s efficacy has been widely criticized. By August 2007, only 23 percent of applicants had received grants. Applicants have expressed frustration at the program’s complex application process, inequitable design, confusing policies, erroneous calculations, and slow payout rates. Recovery authorities and state legislators blame overly rigid federal regulations, insufficient congressional allocations, mismanagement by ICF International, and miscommunication with the federal government.

1. U.S. Government Accountability Office, *Preliminary Information on Gulf Coast Rebuilding*, GAO-07-809R (Washington, D.C.: GAO, June 29, 2007), <http://www.gao.gov/new.items/d07809r.pdf>.

2. The LRA comprises 33 state and national leaders appointed by Governor Kathleen Blanco.

3. The Road Home program, “About Us,” <http://www.road2la.org/about-us/default.htm> (accessed December 2007).

4. Though the Road Home program operates through the LRA, the Office of Community Development—located in the Office of the Governor—is officially responsible for Road Home’s performance.

5. David Hammer, “Blanco Administration Quietly Gave Raise to Road Home Operator,” *The Times-Picayune*, March 13, 2008.

6. This Policy Comment focuses on the homeowner’s portion of the Road Home program. Of the \$10.4 billion in CDBG monies allocated to Louisiana, \$6.9 billion was put into the homeowner’s grant portion. The remainder of the grant was put into code enforcement (\$11 million), land assembly (\$2 million), Small Rental Property Repair grants (\$866 million), low-income housing development incentives (\$581 million), and other planning and small grant programs.

The 2005 Gulf Coast Hurricanes and Their Consequences

IN THE EARLY morning of August 29, 2005, Hurricane Katrina made landfall in Buras-Triumph, Louisiana. As it moved over southeastern Louisiana, the eye of the storm headed directly for New Orleans, bringing with it record winds of 120 miles per hour and dropping as much as 13.6 inches of rain within 24 hours.⁷ These events alone were enough to bring property destruction and death to the communities in the path of the storm. However, it was not Katrina's wind or rain that delivered the most devastating consequences to New Orleans. The worst damage was wrought by Katrina's powerful storm surges, some of which rose as high as 12 feet above sea level in the canal entrances of Lake Pontchartrain.⁸ Storm surges coursed through New Orleans' low-lying parish neighborhoods of St. Bernard, St. Tammany, Jefferson, and Plaquemines, and in more than 50 locations water breached and overtopped the levees and floodwalls built to protect residents around Lake Pontchartrain and Lake Borgne.⁹ (See Map 1). The multiple levee failures during the day resulted in 80 percent of New Orleans being submerged in up to 10 feet of water. Storm surges pushed floodwaters into neighborhoods in surrounding parishes throughout the day. Pumping stations designed to remove rising waters failed to work, leaving communities submerged for days.¹⁰ It is estimated that the flood caused by levee and pumping station failures killed 800 of the 1,300 people who died during Hurricane Katrina.¹¹

Southeastern Louisiana was not the only region to sustain severe hurricane damage. Katrina's effects along Mississippi's Gulf Coast were total and devastating. The hurricane shoved barges, boats, and debris into neighborhoods, killing 236 people. Entire communities were leveled. Hancock, Harrison, and Jackson counties were those most affected.

However, Katrina was only one of two major hurricanes to hit the Gulf Coast in fall 2005. On September 24, Hurricane Rita hit southwestern Louisiana and Texas, producing rainfall that breached Katrina-damaged levees in New Orleans; flooding Gentilly and the Lower Ninth Ward a second time; and destroying several communities in Cameron, Calcasieu, and Beauregard parishes. Indeed, Cameron Parish was nearly obliterated.

Who Pays?

TOTAL DAMAGE FROM Hurricane Katrina is estimated at over \$100 billion, making it the costliest Atlantic hurricane in history. Approximately 65 percent of the area's 147,000 residential properties were flooded, with 50 percent sustaining severe damage.¹²

When Katrina hit, many residents in Louisiana's hardest-hit areas were either uninsured or underinsured against flooding. The disastrous consequences brought to the fore of public discourse the argument that people should not settle in areas located below sea level.¹³ Furthermore, should they choose to settle in these higher-risk areas and fail to insure, or to insure adequately, they should bear the cost of the decision to live in high-risk areas. However prevalent this argument may have been in the weeks and months following Katrina and Rita, a closer look at the situation indicates that incentives and information underlying residents' decisions—such as where to locate and whether or not to insure—were distorted not only by decades of federal intervention, but also by state and local policies. Thus many residents made location and insurance decisions using incomplete or inaccurate information. To the extent that such information provided the basis for decision-making, government—

7. Christine F. Anderson, Jurjen A. Battjes, David E. Daniel et al., *The New Orleans Hurricane Protection System: What Went Wrong and Why* (Reston, VA: American Society of Civil Engineers, 2007), <http://www.asce.org/files/pdf/ERPreport.pdf>.

8. *Ibid.*, 16.

9. *Ibid.*, 25.

10. *Ibid.*, 60. Anderson et al. report that nearly all the pump stations in Jefferson and St. Bernard parishes were evacuated because they couldn't withstand hurricane forces and "without operators the pump stations lay idle." The loss of electricity rendered the pumps useless. The stations themselves flooded, causing damage and failure. Even if the stations had worked, they "would not have been able to pump the huge amount of water that flooded into New Orleans because of overtopping and breaching."

11. Patricia Grossi and Robert Muir-Wood, *Flood Risk in New Orleans: Implications for Future Management and Insurability* (Newark, CA: Risk Management Solutions, 2006), 9, http://www.rms.com/Publications/NO_FloodRisk.pdf.

12. Grossi and Muir-Wood, *Flood Risk in New Orleans*, 9. According to one estimate, the damage to residential structures is between \$8 and \$10 billion, with the National Flood Insurance Program providing between \$4 and \$5 billion. The remainder of the damage is uninsured.

13. Jack Shafer, "Don't Refloat: The Case Against Rebuilding the Sunken City of New Orleans," *Slate.com*, September 7, 2005, <http://www.slate.com/?id=2125810&nav=tap1/>.

THE NEW ORLEANS LEVEES

The federal government assumed responsibility for levee and flood-wall construction with the Flood Act of 1936 and the Flood Control Act of 1965. In partnership with state and local governments, the U.S. Army Corps of Engineers (USACE) designed and built most of the levees in New Orleans between the 1920s and the present day.¹ Local levee boards own and operate the levees, retaining responsibility for maintenance.

In 1965, the effects of Hurricane Betsy prompted enhancements to the New Orleans levees. The enhancements were eventually abandoned, following a court ruling against USACE.² In the mid-1980s another levee improvement project, the High Level Plan, was started. However, execution of the plan was incomplete and, some argue, the plan itself was still inadequately designed at the time that Hurricane Katrina hit.³ In addition to protection offered by floodwalls and levees, New Orleans relied on a series of pumping stations located throughout the city. Installation of this system began in the early twentieth century as a means of removing floodwaters and reclaiming marshland. The development of flood protection systems and draining of marshlands encouraged developers to build near the levees. Paradoxically, those systems designed to prevent disaster also encouraged development in areas of high flood risk, a trend that invited disaster.

According to the American Society of Civil Engineers (ASCE), nearly 169 of 284 miles of federal levees and floodwalls were damaged as a result of Katrina.⁴ In some places, levees collapsed due to their design. Engineers had failed to account for the soft soil or the existence of a water-filled gap that developed behind the concrete I-walls. In other areas, levees were overtopped. They were not protected against soil erosion, "an engineering choice of catastrophic consequence,"⁵ which allowed soil to be scoured and water to pour into the city. In hindsight, it is evident that New Orleans' hurricane protection system was piecemeal in design and relied on incorrect elevation data that neglected to take into account the fact that New Orleans is sinking as much as one inch per year. Government management decisions, congressional pork-barrel spending politics that plagued USACE funds,⁶ and local levee boards' diversion of millions of tax dollars from public infrastructure improvements toward "bloated contracts and political patronage" magnified poor engineering choices.⁷

not residents—bears responsibility for at least some of the storm-related damage.

In hindsight, it is clear that communities flooded by Katrina were located in floodplains and that residents there should have insured against flooding. Yet only 40 percent of residents in Orleans Parish, and 57.7 of those in St. Bernard Parish, for example, carried flood insurance.¹⁴ Several factors contributed to the relatively low

flooding in New Orleans was not inevitable, but rather the result of extensive infrastructure failure.⁸ This catastrophic failure of man-made systems—levees, floodwalls, and pumping stations—designed to protect the city actually contributed to two-thirds of its death toll and damage.⁹ The ASCE estimated that less than half the actual property losses in New Orleans would have occurred had the levees and pumping stations not failed.

No single entity is responsible for the engineering-related failures. The USACE began construction of New Orleans' levee system in the late 1800s; but four levee district boards, which included state and local appointees, maintained and operated the levees. The city's water and sewer boards operated the pumping stations. Many of the levee fractures "resulted from unclear lines of authority and insufficient coordination amongst the various agencies having jurisdiction over the levee system."¹⁰ In this sense, Hurricane Katrina's impact on New Orleans was both an act of God (rains, high winds) and an act of man (failure of infrastructure designed to protect against such an event).

1. The three main USACE units are Lake Pontchartrain, Louisiana and Vicinity Protection project; West Bank and Vicinity New Orleans, Louisiana, Hurricane Protection project; and New Orleans to Venice, Louisiana, Hurricane Protection project.
2. Grossi and Muir-Wood, *Flood Risk in New Orleans*, 6. The Flood Control Act of 1965 authorized improvements to the Lake Pontchartrain and Vicinity project. Over the course of the 13 year project, arguments over design and environmental concerns led to a 1977 federal court decision that barred the USACE from constructing improved barriers.
3. *Ibid.*, 5–6. These projects did not use risk analysis to design these new defenses. Instead they were based on Hurricane Betsy's impact. The "standard hurricane project" was chosen to represent the most severe meteorological conditions characteristic to the region. "In other words, the design was based on an engineer's judgment as to a "reasonable" level of protection, instead of being designed to provide protection to some assigned level of probability."
4. Anderson et al., *The New Orleans Hurricane Protection System*, v–vi.
5. *Ibid.*
6. William F. Shughart II, "Katrinanomics: The Politics and Economics of Disaster Relief," *Public Choice* 127 (2006): 10.
7. *Ibid.*, 10.
8. Anderson et al., *The New Orleans Hurricane Protection System*, 16.
9. *Ibid.*, 39.
10. Shughart, *Public Choice*, 35.

rate of residents carrying flood insurance in the Gulf—particularly in southeastern Louisiana.

Ideally, it is individuals who insure against disaster. Standard homeowners insurance covers wind-related damage, but generally excludes water-related damage that results from flooding.¹⁵ Because private insurance companies seldom offer flood insurance, the federal government developed the National Flood Insurance

14. Howard Kunreuther and Mark Pauly, "Rules Rather than Discretion: Lessons from Hurricane Katrina," *Journal of Risk and Uncertainty* 33 (2006): 103.

15. Rawle O. King, *Post-Katrina Insurance Issues Surrounding Water Damage Exclusions in Homeowners Insurance Policies*, Order Code RL33892 (Washington, D.C.: Congressional Research Service, 2007), 4, <http://www.cnie.org/NLE/CRSreports/07March/RL33892.pdf>. A 1983 court decision forced insurance companies to pay flood-related claims for which they believed themselves not responsible. As a result the industry revised policy language to include water-damage exclusions. Today almost all homeowners policies contain a water-damage exclusion, with language making it clear that insurance companies are not responsible for damage related to the failure of dams or levees.

Program (NFIP),¹⁶ which subsidizes flood insurance to homeowners located in special flood areas.¹⁷

The NFIP uses Flood Insurance Rate Maps (FIRMs) produced by the Federal Emergency Management Agency (FEMA) to price premiums. The coverage is then sold to eligible homeowners through private insurance companies in a policy separate from homeowners insurance. The 100-year flood, or a 1 percent annual chance that flooding will occur, is the standard used to map and manage flood hazards. (See “The National Flood Insurance Program.”)¹⁸ FEMA’s maps are based on the assumption that the levees could withstand the 1 percent chance of severe annual flood.

Neither the NFIP nor Louisiana’s state and local policy makers distinguish between 100-year flood protection provided by an artificial levee and 100-year flood protection offered by natural topography. In fact, NFIP is structured around the implicit assumption that levees will hold. This assumption, one also held by many New Orleans residents, resulted in fewer homeowners purchasing flood insurance.¹⁹ Approximately 35,000 of the flooded homes in New Orleans were not covered by flood insurance,²⁰ often because lenders told owners that they did not need it.²¹ In particular, residents of the Lower Ninth Ward and St. Bernard Parish were told they were not located in a special flood hazard zone. However, the presence of levees does not eliminate risk; levees are always at risk of breaching.

The scope of flooding in these areas indicates that FEMA’s flood maps did not correctly capture the actual chance of a flood occurring. This is true in Mississippi as well. Residents in both states were living in areas not designated as 100-year floodplains. Many in these areas decided not to insure based on inaccurate advice derived from government-generated maps, and thus they were

uninsured or underinsured against water-related damage caused by flooding.

Some floodplain residents, however, carried maximum coverage—homeowners policies through private insurers and flood insurance through NFIP. Though these individuals took every possible measure available to insure against hurricane-related damage, they were, in effect, not fully insured against levee failure because NFIP did not price this residual risk (i.e., the risk associated with the levees breaking). This oversight rendered the NFIP flood insurance policy an incomplete one.

Some who lived in designated flood plains were advised to carry flood insurance, but they chose not to. Those living in hazard-prone areas may have elected not to insure against flood because they erroneously believed that homeowners insurance would suffice, because they failed to fully appreciate the risk associated with their location, or because they believed that, should a disaster occur, government disaster relief would compensate them after the fact.²²

3 Program Intent and Design

AFTER KATRINA AND Rita hit the Gulf Coast, both Mississippi and Louisiana grappled with the question of how government should compensate homeowners for property losses in cases where the cost of repair exceeded what insurance would provide. Each state experienced unique recovery problems stemming from the different types of storm damage done to each state.

In Louisiana, much of the damage (in terms of population concentration) occurred in the southeastern portion

16. The NFIP is the only source of insurance that residents in the Gulf Coast can obtain for policies under property coverage of \$250,000 and contents coverage of \$125,000. In instances where coverage exceeds these amounts, insurance companies may write their own policies.

17. A homeowner may purchase an NFIP policy through FEMA or through a private insurance company. Part of the premium collected is retained by the private insurer to pay for administering the policy. The remainder is deposited in the U.S. Treasury. Claims paid by the insurance company are reimbursed by the federal government. When insurance is sold this way, it is routine for the insurance agent (acting as an agent of the federal government) who markets NFIP to inform homeowners that they do not need flood protection because they live outside the flood plain.

18. Nicole T. Carter, *Flood Risk Management: Federal Role in Infrastructure*, Order Code RL33129 (Washington, D.C.: Congressional Research Service, 2005), 4, <http://fpc.state.gov/documents/organization/56095.pdf>.

19. *Ibid.*, 5.

20. Grossi and Muir-Wood, *Flood Risk in New Orleans*, 9.

21. Peter Whoriskey, “Risk Estimate Led to Few Flood Policies,” *Washington Post*, October 17, 2005, A01.

22. Howard Kunreuther, “Has the Time Come for Comprehensive Natural Disaster Insurance?” in *On Risk and Disaster: Lessons from Hurricane Katrina*, eds. Roland J. Daniels and Donald F. Kettl (Philadelphia, PA: University of Pennsylvania Press, 2006), 175.

THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

In the mid-twentieth century, private insurance companies ceased to offer flood insurance in the United States, claiming they could not provide profitable coverage at an affordable price.¹ The companies cited the inability to accurately calculate risk and a lack of adequate financial tools (e.g., portfolio diversification) to help replenish capital.² Their reluctance to offer flood policies was also prompted by the high correlation of losses that follow a disaster. That is, damage suffered during natural disasters is generally geographically concentrated and results in a high number of claims, making it difficult to pool risk. Insurers face a greater risk of financial insolvency in disasters if that year's premiums are not sufficient to cover a sudden spike in claims.³

After Hurricane Betsy flooded New Orleans in 1965, Congress created the National Flood Insurance Program (NFIP), administered by FEMA. To participate, a community must agree to undertake flood mitigation measures based, at minimum, on federal flood construction standards. As part of the program, FEMA developed Flood Insurance Rate Maps (FIRMs) that established the boundaries of floodplains. To encourage communities to participate, NFIP initially offered subsidized rates to those who had established residence in floodplains prior to the issuance of the flood maps. In the intervening years, the number of subsidized residents has declined to 26 percent.⁴

Several criticisms of NFIP have been raised, among them the accuracy of FIRMs used to define "Special Flood Hazard Areas." These hazard areas are places that have a 1 percent chance of being flooded each year (known as the 100-year flood). The 100-year flood test is the standard used to determine whether a resident needs flood insurance. It is based on a judgment made by experts in the 1960s about what represented "a reasonable probability of [flood] occurrence and loss worth protecting against."⁵ In this sense, the 100-year flood is a vulnerability, not a risk standard. When Katrina hit in 2005, the maps had not incorporated the latest information on regional risk, which included the finding that sea levels were rising; New Orleans was sinking—a process known as subsidence—at a rate of up to one inch a year; and hurricane activity in the 1990s was increasing.⁶ Because this information had not been incorporated into the FIRMs, the 2005 hurricanes destroyed areas of the Gulf extending "well beyond" areas that the maps indicated were 100-year flood plains and that required residents to carry flood insurance.

In addition to relying on outdated FIRMs and assuming inaccurate levels of risk, NFIP did not account for the residual risk associated with possible infrastructure failure. NFIP implicitly assumed that levees would provide sufficient protection to those residing near them. This assumption led lenders to advise residents near the levees to not purchase flood coverage.

of the state. In greater New Orleans, damage was variable. Flood waters had washed away some units and left others intact. For example, in Central City New Orleans some buildings experienced ten feet or more of flooding, while several blocks away very little flooding occurred. This "jack-o-lantern" effect made designing a rebuilding policy based on traditional boundaries much more difficult and required Louisiana to establish policies for rebuilding "what was not totally destroyed."²³ In Mis-

Others criticize NFIP because the premiums it charges to insure homes in high-risk areas are kept low by subsidies and by a congressionally mandated annual limit on premium increases. Subsidized rates convey inaccurate information to policyholders about the real level of risk they face. Moreover, subsidies contribute to NFIP's insufficient cash reserves that preclude it from paying claims. Due to this shortage, it must borrow from the U.S. Treasury to pay claims and repay the borrowed amount with interest. In fact, the borrowing limit for NFIP, set at \$1 billion and unchanged since 1968, was raised to \$20.8 billion after Hurricane Katrina.⁷

Observers also point out that repetitive loss properties, those repaired multiple times with insurance dollars, account for almost 30 percent of NFIP claims. That is, the federal government subsidizes homeowners, through NFIP, to rebuild in high-risk areas. These homeowners, however, do not bear the true expense of their decision to do so, because insurance premiums remain artificially low.

From an actuarial standpoint, advances in risk analysis that permit more accurate pricing of policies, as well as progress in financial markets that allows insurers to quickly restock capital reserves have transformed floods and other catastrophes into insurable events.⁸ Policy recommendations to improve NFIP include pricing policies at an actuarially fair level (based on the best available risk information) and ensuring the program has sufficient reserves. These recommendations imply "a well-designed public catastrophe insurance program mimics as far as possible the procedures of an equivalent competitive private market."⁹ In other words, if risks can be priced to yield a profit, and financial markets can provide sufficient capital to fund losses, "there is no obvious reason why private insurance markets should not be able to provide catastrophe insurance."¹⁰

1. Carter, *Flood Risk Management*, 3.
2. Grossi and Muir-Wood, *Flood Risk in New Orleans*, 22.
3. Daniel Sutter, *Ensuring Disaster: State Insurance Regulation, Coastal Development, and Hurricanes*, Mercatus Policy Series, Policy Comment No. 14 (Arlington, VA: Mercatus Center, 2007): 3, http://mercatus.org/publications/pubid.4329/pub_detail.asp.
4. *Ibid.*, 22. These subsidized residents are charged 40 percent of the technical rate.
5. Carter, *Flood Risk Management*, 4.
6. Grossi and Muir-Wood, *Flood Risk in New Orleans*, 16; Carter, *Flood Risk Management*, 4.
7. Grossi and Muir-Wood, *Flood Risk in New Orleans*, 23.
8. Dwight Jaffee and Thomas Russell, "Should Governments Provide Catastrophe Insurance?" (Working Paper 296, Fisher Center Working Paper, Fisher Center for Real Estate & Urban Economics, University of California, Berkeley, 2005), 2.
9. *Ibid.*, 5.
10. *Ibid.*, 3.

issippi, damage caused by the storm surge was total, completely erasing many houses along the coast. The homogeneity of destruction provided a clearer starting point for identifying damage and structuring subsequent compensation policy.

Both states directed the majority of early allocations to programs designed to assist homeowners, and both received approval for their plans from the Department

23. Michael Chriszt (Director of International and Regional Analysis, Federal Reserve Bank of Atlanta) speaking in the Southeastern Economic Perspective Podcast, "The Gulf Coast: Two Years After Katrina," July 2007, transcript available at http://www.frbatlanta.org/invoke.cfm?objectid=1CCABC77-5056-9F12-1227BFA0415EF017&method=display_body.

of Housing and Urban Development.²⁴ However, Louisiana has experienced ongoing conflict with the federal government regarding the design of Road Home and the state's planned use of FEMA Hazard Mitigation dollars. Figure 2 shows how each state used its allocation.

Mississippi's Homeowner Assistance program was designed by the Mississippi Development Authority, located in the governor's office, to award compensation grants of up to \$150,000 to homeowners located outside the 100-year flood plain who experienced damage due to hurricane-related floods.

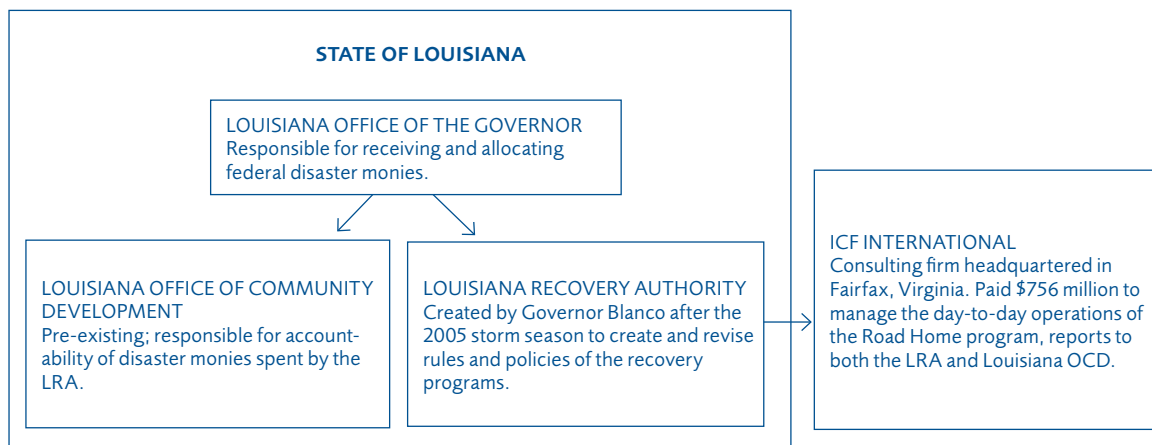
Louisiana's Road Home program was more ambitious in terms of eligibility and goals than was Mississippi's Homeowner Assistance program. After Katrina, more than 300,000 people evacuated to areas other than Louisiana cities. Alarmed by the rate of out-migration, the state wanted as many residents as possible to return, in order to "restore Louisiana's impacted communities." Program designers and federal officials feared that "devastated communities [would] be blighted by abandoned homes, clouded land titles, and disinvestments if a large portion of the financial assistance [was] not provided to homeowners as compensation for their losses and as incentive for homeowners to remain in affected areas."²⁵

Road Home was designed with two interrelated goals in mind. First, it would help residents return to Louisiana. Second, it would encourage them to repair their properties. Designers hoped that this approach would prompt the rebuilding of pre-existing communities and salvage damaged housing stock. In these ambitious aims, Road Home departed from Mississippi's more concrete compensation-for-losses approach.

While Mississippi's Homeowner Assistance program covered only flood-related damage, Louisiana's Road Home program extended eligibility to residents sustaining wind damage, an event typically covered by homeowners insurance. (As discussed earlier, residents subscribed at a much higher rate to homeowners insurance than to NFIP-provided flood insurance.) This decision contributed to a higher than anticipated number of Road Home applicants and the program's ensuing budget shortfall of \$3 to \$6 billion.

Why did the framers of Road Home choose such broad eligibility criteria? Difficulties in determining the exact source of damage (wind vs. water) have been cited. However, limiting eligibility based upon levee failures and previous flood maps would have greatly simplified and better targeted the program. The broad criteria might

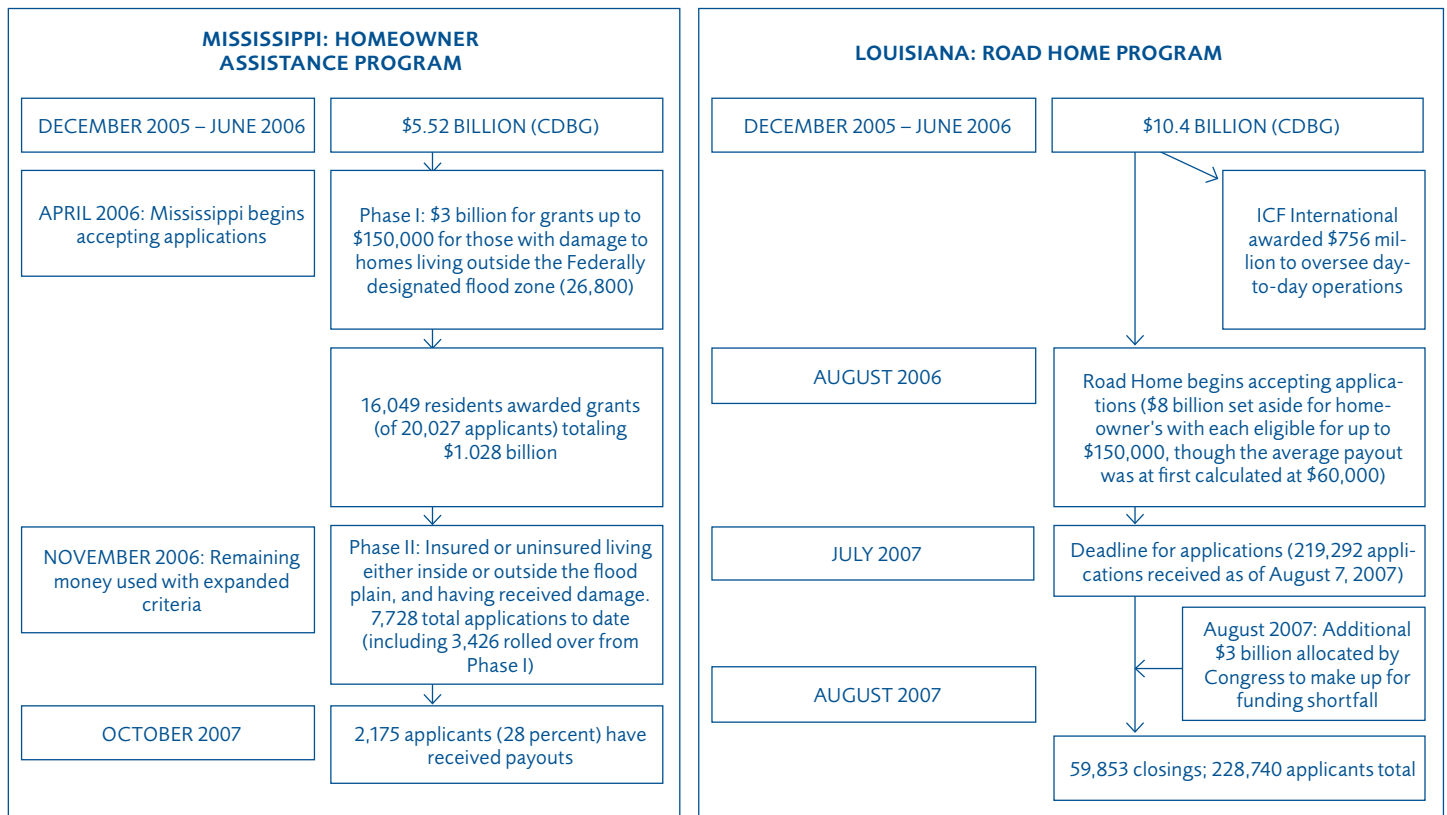
FIGURE 1: THE STATE OF LOUISIANA'S GOVERNANCE AND MANAGEMENT STRUCTURES FOR THE ADMINISTRATION OF THE ROAD HOME PROGRAM



24. The federal government provided assistance to Louisiana and Mississippi through the Community Development Block Grant (CDBG) under the Department of Housing and Urban Development (HUD) and through FEMA's Hazard Mitigation Grant Program (HMGP). These programs operate under different pieces of legislation, follow different funding models, and are governed by different regulations.

25. U.S. Department of Housing and Urban Development Disaster Recovery Initiative, *Proposed Action Plan Amendment 14 (First Allocation)—Road Home Homeowner's Compensation Plan*, Docket No. FR-5051-N-01, *Federal Register* Volume 71, Number 29 (Washington, D.C.: U.S. Department of Housing and Urban Development, April 16, 2007), 2, http://www.doa.louisiana.gov/cdbg/dr/plans/Amend14-Homeowner-Compensation_HUD-version_07-05-14.pdf.

FIGURE 2: ROAD HOME'S DESIGN COMPARED TO THAT OF MISSISSIPPI'S HOMEOWNER ASSISTANCE PROGRAM



also be attributed to the best of intentions—helping as many people as possible. It is also possible that state and local policy makers may have acted to deflect responsibility from the state and local government infrastructure policies contributing to levee failure and onto “external events” (i.e., the overwhelming effects of an historic weather event). Had eligibility criteria been more tightly defined, the program may have drawn attention to the inadequacy of federal flood insurance.

Some of Road Home’s policies were designed to serve a larger development goal of rebuilding destroyed neighborhoods. However, on the program’s first anniversary, two years post-Katrina, only 23 percent of eligible grantees had received funds, delaying reconstruction plans and frustrating those residents who had based their decisions to stay in Louisiana on the expectation of timely Road Home payouts. Some of these individuals found themselves waiting up to a year for the first responses from the program.²⁶

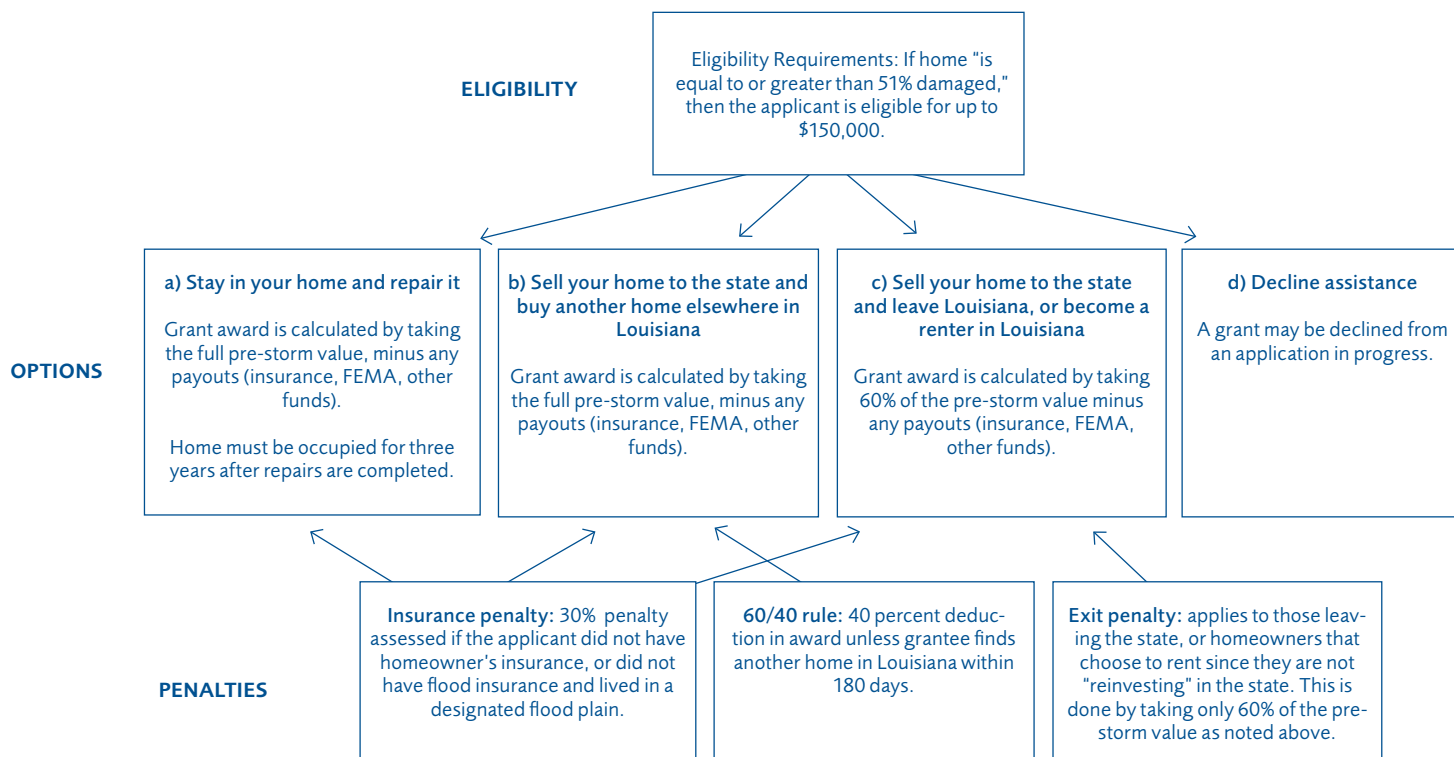
4 The Road Home: Design and Policy Features

ROAD HOME GENERATES an applicant’s preliminary grant figure by calculating the dollar value of damage incurred to the pre-storm value of the home. From this, Road Home subtracts any insurance payouts that the applicant has already received to yield the total. The grantee must then make one of four choices, detailed in figure 3, all of which affect the final amount of the Road Home grant.

The numerous penalties and adjustments to which the grant calculation may be subject make it difficult for an applicant to forecast the final payout. For example, though insurance payouts were subtracted from the initial calculation, an applicant without homeowner’s insurance (or flood insurance if located in a flood plain) is assessed a 30 percent penalty against the final award.

26. Residents interviewed by the authors observed that wait periods of nearly a year before receiving the first acceptance letter were not uncommon and that most applications required more than two years to complete the process.

FIGURE 3: CHOICES AVAILABLE TO ROAD HOME GRANTEES



This formula adheres to the program framers' intent to avoid awarding a Road Home grant on top of insurance payouts. It also avoids the moral hazard that may stem from "bailing out" property owners who choose not carry insurance but live in high-risk areas.²⁷

Applicant difficulty in forecasting the payout amount has been compounded by many of Road Home's other features, including broad eligibility criteria, an exit penalty applied to those leaving the state, and frequent administrative changes. We analyze below the program's most significant policy features for their potential impact on resident choices and rebuilding.

4.A: Broad Eligibility

EARLY IN NEGOTIATIONS the federal government advised Louisiana and all hurricane-affected states to compensate for water-related damage only. The Louisiana Recovery Authority ignored this advice and permitted Road Home to cover wind damage and to extend eligibility to residents who carried homeowners insurance as well as those who did not. (Program planners cited the difficulty of distin-

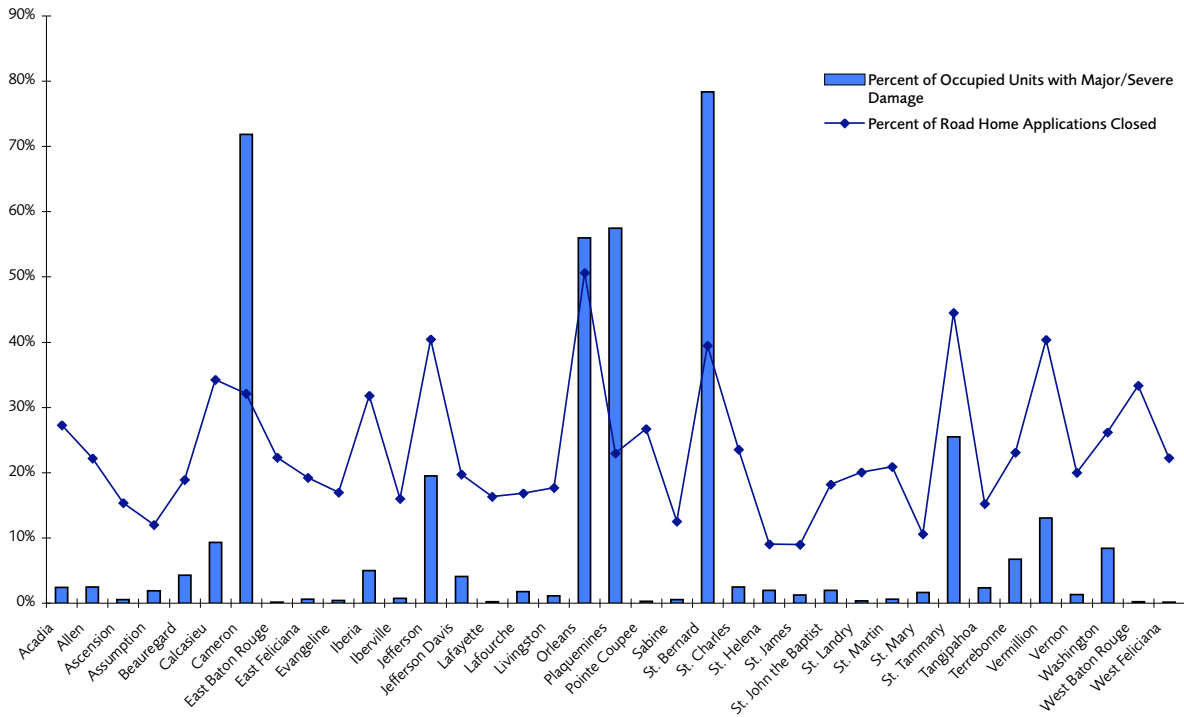
guishing between different types of home damage as the reason for broad eligibility criteria). As a consequence, grant eligibility was extended to residents in areas where flood damage was sporadic and minimal. It may be that policy makers and politicians, overwhelmed by the extent of the damage in New Orleans, acted impulsively, promising compensation to everyone affected. Andy Kopplin, the Louisiana Recovery Authority's executive director, defended the state's choice noting that, "When President Bush said he would do what it takes he didn't say, 'except if you had wind damage.'"²⁸

This decision to extend eligibility added approximately 43,000 homes to the list of those eligible for assistance and added \$2.6 billion to Road Home's budget and ensuing shortfall. It also created three other problems. First, it offered *ex-post* assistance to homeowners suffering wind-related damage regardless of the homeowner responsibility to insure against such a possibility. This provides residents an incentive to underinsure against future disaster and sends a signal to insurers that the state's generosity will pick up the tab for other wind-related claims. Additionally, this decision cast a wide geographic net, offering grants to residents located all

27. Moral hazard is the incentive an individual has to assume more risk because he is insured. In this case the presumption that a bailout will arrive may cause individuals not to insure against disaster.

28. Terry O'Connor, "Commentary: Andy Kopplin Emerges as Unsung Recovery Champion," *New Orleans City Business*, June 8, 2007.

GRAPH 1: PERCENTAGE OF UNITS WITH SEVERE OR MAJOR DAMAGE COMPARED TO PERCENTAGE OF ROAD HOME CLOSINGS, BY PARISH



over the state, rather than concentrating dollars in the areas hit by the failure of infrastructure or in the inaccuracy of federal flood maps. Finally, the program’s broad eligibility criteria also resulted in a subsequent increase in applicants may have diverted resources toward application processing and slowed the payout rate. It is also possible that those suffering only wind-related damage may have received funds more quickly because key documentation was not destroyed in the flood, making their program application much easier.²⁹

Graph 1 shows the percent of housing units that experienced major-to-severe damage by parish, and the percent of Road Home applicants in those parishes who had received an award by November 2007. For example, in St. Bernard Parish, 78 percent of homes (a total of 19,686 houses) experienced major or severe damage from the floods produced by the breaching of the Mississippi River–Gulf Outlet Canal (MR-GO) and the Industrial Canal. As of January 2008, 39 percent of St. Bernard Parish applicants have received a Road Home award, but the remainder of applicants are still waiting. In East Baton Rouge Parish, on the other hand, Road Home payouts exceed the number of homes suffering severe damage. By covering wind damage, Louisiana dispersed funds to a

much wider area, awarding payouts without establishing the underlying reason for improper protection. The areas that were the hardest hit suffered as a result of infrastructure failure and erroneous government advice. Thus, there are clear reasons to compensate many residents in the communities closest to the levees. Had Road Home concentrated funds in this manner, the program would likely have promoted efficient rebuilding in the areas that suffered the most severe damage. However, covering wind damage has scattered program funds, diluted the impact of compensation dollars, and rewarded those who neglected to carry appropriate insurance.

Road Home’s decision to implement broad eligibility requirements has slowed recovery considerably in the neighborhoods hit with the full force of the storm and the government’s failures in insurance policy and levee design and maintenance. A resident of Gentilly, New Orleans who suffered 10 feet of flooding in his home and the destruction of its contents, describes this disparity in payout speeds:

We didn’t get a response back from Road Home one-and-a-half years later. I know a guy who lives on the North Shore. He had wind damage. He

29. Important documents included verification of ownership and occupancy, most easily accomplished by producing a previously filed state tax exemption and acceptable form of identification.

applied a year later [than I did]. I applied a year ahead. In six months, he got \$70,000 in damage that he thought cost about \$15,000 . . . he added on a room to his house, remodeled his house, with the extra money. They were giving out money on the outer outskirts. . . . You give it out here to people who had minor damage. . . . What about the people in the center who lost everything—the epicenter or whatever you want to call it . . . why aren't they getting any money to rebuild . . . that's why a lot of people were frustrated.³⁰

4.B: The Exit Penalty

ROAD HOME WAS designed to function as more than simply a compensation program. “It’s not just about helping people—it’s about restoring neighborhoods and cultures through the redevelopment of housing . . . entire parishes, entire cultures were devastated.”³¹

Because one of Road Home’s inherent goals is the restoration of preexisting communities, only those residents who return to their damaged homes and rebuild (or buy elsewhere in Louisiana) are eligible to receive a full Road Home grant. Program creators argue that assessing a penalty for out-migration rewards those “who make the effort and take the risks to move back and reoccupy housing in Louisiana.”³² Those who opt to leave Louisiana or to move from owning to renting within the state are subject to a 40 percent reduction in grant amount.

This provision is critical to the rebirth of Louisiana. And since we provide all Road Home participants with a choice of all options—including ones that do provide full market value if they return home—we believe there is no inequity in the program. People can make choices on an equal basis.³³

Does the exit penalty provide the intended incentive? After Katrina, a high percentage of Louisianans expressed

a desire to rebuild their properties and neighborhoods. This is unsurprising, given the high nativity rates in Louisiana (80 percent) and particularly in New Orleans (77 percent).³⁴ It is possible that the bulk of returnees would have opted to return even without Road Home’s incentives. It is also possible that a faster payout would have encouraged more residents to return to their homes or relocate within Louisiana. But faced with uncertainty, many may have committed to a job and invested in housing outside Louisiana. A much larger analysis is required to demonstrate the latter effect, a task that will be possible only when more data become available.

TABLE 1: OPTION SELECTIONS (AS OF DECEMBER 2007)³⁵

Option	Count	Percentage
Keep your home	109,511	84.3
Sell, but stay in Louisiana	9,733	7.4
Sell, and move out of Louisiana	2,679	2.1
Decline benefits	1,356	1.1
Delay benefits	4,511	3.5
Unable to determine selection	490	<0.1
Total	129,918	100

Table 1 summarizes the statewide totals of Road Home applicants who have selected one of the four options the program offers as detailed in Figure 3. Those electing to sell their properties are concentrated in St. Bernard, Orleans, Jefferson, and St. Tammany parishes. Buyouts are particularly acute in St. Bernard Parish, where nearly 40 percent of applicants have decided to sell and another 21 percent remain undecided. In addition to the flooding caused by levee failures, St. Bernard was hit with a hurricane-related oil spill during the flooding, caused by a dislodged above-ground storage tank belonging to the Murphy Oil Company and affecting about 1,700 homes in Chalmette and Meraux.³⁶ A class action lawsuit with Murphy Oil was settled in September 2006 for \$330 million to be distributed among residents and homeowners whose properties were damaged.

30. Interview conducted in New Orleans, LA, November 28th, 2007. Name withheld to protect confidentiality.

31. Walter C. Leger, Testimony, Subcommittee on Response and Recovery, 110th Cong., 1st sess, January 29, 2007, 9–10.

32. HUD Disaster Recovery Initiative, *Proposed Action Plan Amendment 14 (First Allocation)—Road Home Homeowner’s Compensation Plan, 2*.

33. Walter C. Leger, Testimony, 9–10.

34. U.S. Census Bureau, Geographical Mobility/Migration Web site, <http://www.census.gov/population/www/socdemo/migrate.html>, (accessed December 7, 2007).

35. Road Home Program, *The Road Home Week 77 Situation and Pipeline Report* (New Orleans, LA: December 2007), 3, http://www.road2la.org/Docs/pipeline/Week_77_Combined_Report.pdf. Counts are cumulative totals as of December 26, 2007.

36. U.S. Environmental Protection Agency, “Response to 2005 Hurricanes: Murphy Oil Spill,” <http://www.epa.gov/katrina/testresults/murphy>.

At 74 percent, Orleans Parish has the highest percentage of Road Home applicants who are avoiding the exit penalty by choosing to rebuild in pre-storm locations. Many of these homeowners are located near levees in areas that suffered significant levee-related flooding. Thus, Road Home's goal of encouraging people to return to their pre-storm neighborhoods may succeed, but it may also place residents of Orleans Parish and similar locations in harm's way, absent improved mitigation measures or accurately priced and mandatory flood insurance policies. While Road Home attempts to communicate the risk of living in a flood zone by conditioning grant approval on the purchase of flood insurance, the NFIP premiums remain subsidized and do not accurately reflect the level of risk.

Road Home, a disaster compensation program, endeavors to operate as a community development program even though new flood maps have not yet been generated nor public infrastructure improved. At the same time, the program precludes individuals from making community development choices by penalizing their Road Home payout should they choose to leave the state.

The program may function more efficiently, and thus encourage more applicants to choose to stay in the state, if it simply compensated individuals for losses suffered as a result of inaccurate government information or a dereliction of responsibility on the part of the government for maintaining flood protection systems.

Though the Road Home exit penalty aims to encourage community development, it fails to acknowledge that some people might be better off if they do not rebuild in their pre-storm locations, but instead pursue opportunities elsewhere. By penalizing applicants for choosing to leave the state, Road Home limits personal autonomy. Indeed, it may compel applicants to choose to stay in order to receive a higher payout, thereby locking them into a situation that is ultimately harder to change once their savings have been sunk into housing repairs in areas with dubious protection against future storms. The long-term consequences of this path are still unknown and will only become clear once a detailed analysis of recovery in the region is possible.

4.C: The Promise of Additional Money for Elevation and Mitigation

IN ADDITION TO the CDBG allocations to cover Road Home rebuilding grants, Louisiana was allocated \$1.2 billion in FEMA Hazard Mitigation Grant Program (HMGP) funds. Governments may use HMGP funds to purchase repetitive loss properties—properties that are repeatedly flooded—and convert them into green space. Alternately, local governments can use these funds for homeowner grants that will help homeowners elevate their properties or undertake measures to protect against future storm damage. In October 2006, shortly after the Road Home program began, Louisiana, through Road Home, offered eligible homeowners up to \$30,000 to undertake elevation work and up to \$7,500 for mitigation projects (such as installing storm windows).

In March 2007, FEMA informed Louisiana that its plan for HMGP funds conflicted with federal regulations—the most serious being FEMA's requirement for cost-benefit, environmental, engineering, and historical analyses before elevation or mitigation work commences.³⁷ Consequently, Road Home placed a hold on HMGP funds in April 2007. At that time, about 22 percent of Road Home grantees had accepted—and were anticipating—elevation grants.

In October 2007, FEMA agreed to release funds to homeowners who had not yet elevated their homes, but the agency could not guarantee awards for nearly 29,000 Road Home grantees who had already begun or completed elevation work. After several weeks of negotiation, FEMA agreed to release elevation money to these “rebuilding pioneers” after an inspection of completed work. The conflict between state and federal government over the appropriate use of HMGP funds was ultimately resolved nearly six months after the controversy halted disbursement of funds. In February 2008, FEMA agreed to change the rules of its program, permitting those who began elevating their homes to be eligible for HMGP dollars as long as work was undertaken after the disaster declaration date of August 29, 2005 and before March 16, 2008.³⁸ Work that commences after March 16, 2008 is subject to approval by FEMA inspectors. In addition to

37. FEMA asserted that Road Home did not treat all applicants equally since it waived the 40 percent exit penalty for the elderly but applied a 30 percent penalty for failure to carry insurance. Moreover in capping awards at \$150,000, Road Home operated under different criteria than the HMGP, which funds projects under a test of cost-effectiveness, not a strict cap. FEMA also said that it instructed Louisiana to identify properties it intended to convert into green space before buying them.

38. Federal Emergency Management Agency, “Hazard Mitigation Grant Program Exception: Work in Progress Guidelines,” http://www.fema.gov/media/fact_sheets/wip_guidelines.shtm.

the release of HMGP funds, Louisiana, through the Road Home program, is supporting elevation grants with its extra allocation of CDBG funds.

Though ultimately resolved, the months of red tape regarding appropriate use of HMGP funds penalized early rebuilders and, perhaps, discouraged other residents from undertaking mitigation and elevation work. The lingering conflict points to at least two possible systemic problems. Either the complex regulations associated with the HMGP program make it an unsuitable form of relief in certain types of disasters, or Louisiana's intent for HMGP funds indicates that the state made incorrect assumptions about how it could apply the funds. Regardless of the cause of the controversy, it resulted in confusion among homeowners attempting to decide whether and how to rebuild their homes. A better understanding of how and when to apply HGMP dollars on the part of policy makers, or regulatory reform of the program itself, should be considered before it is deployed in future disaster-relief settings.

4.D: Administrative Uncertainty

SOME VIEW THE rapid policy and rule changes within the Road Home program—only a few of which are detailed in this Policy Comment—as a sign of responsiveness and willingness to improve performance on the part of Road Home administration. However, frequent rule changes have also added to the massive confusion and uncertainty already facing program applicants. For example, The Louisiana State Auditor reviewed 83 of 124 recommended policy changes made since May 2007 and was unable to determine exactly which had been implemented.³⁹ Many such recommendations and administrative revisions stemmed from the program's complex design and broad scope.

One prevalent criticism among applicants was the difficulty of obtaining valid pre-storm home values. The nuances of New Orleans' real estate market prevented

typical appraisal systems from estimating pre-storm values, as home prices varied considerably—not only from neighborhood to neighborhood, but also from lot to lot—throughout much of the city. By the end of 2006, with disbursement of funds stalled at approximately 100 grant closings, Road Home allowed applicants to use post-storm appraisals and began to accept pre-storm appraisals from a much larger pool of potential sources. Even then, the acceptability of certain kinds of documents remained unclear.⁴⁰

These changes not only affected applicants, but also program administrators and file reviewers who, “do not always have time to check the Road Home portal for policy updates . . . policies change so frequently in the program that it is hard to comprehend and implement a policy before it changes again.”⁴¹ Not only must employees be retrained each time policies change, but changes must also be made to forms and information systems and applicants must resubmit paperwork, further resulting in delays and lost time.⁴²

4.E: The 60/40 rule

Many administrative uncertainties, among them rule and policy changes, were hidden even from the program designers. The most egregious example came when the first grantees came to the closing table in spring 2007, when grantees learned that they had only 90 days to buy a new house or else they would be assessed a 40 percent deduction in their overall grant award.⁴³

The LRA disowned the rule, though the governor's Office of Community Development claimed that the LRA had earlier signed off on it. For now the rule remains, though the deadline to purchase a new house has been extended to 180 days. The exact purpose of the rule is unclear. However, whether intended or not, it penalizes residents who are unable to quickly find and purchase another house in Louisiana.

39. Legislative Auditor State of Louisiana, *Road Home Program: Review of Policy Change Approval Process, Performance Audit* (Baton Rouge, LA: Legislative Auditor State of Louisiana, June 13, 2007), 1, [http://app1.la.state.la.us/PublicReports.nsf/97D7D2F86F9DDAAB862572FA005815F7/\\$FILE/0000117A.pdf](http://app1.la.state.la.us/PublicReports.nsf/97D7D2F86F9DDAAB862572FA005815F7/$FILE/0000117A.pdf).

40. Jennifer Pike, *Spending Federal Disaster Aid: Comparing the Process and Priorities in Louisiana and Mississippi in the Wake of Hurricanes Katrina and Rita*, Gulf Gov Reports (Baton Rouge, LA and Albany, NY: Public Affairs Research Council of Louisiana and The Nelson A. Rockefeller Institute of Government, September 2007), 11–12, http://www.rockinst.org/publications/disaster_homeland/gulfgov/default.aspx?id=342.

41. *Ibid.*

42. *Ibid.*, 2.

43. David Hammer, “Road Home Throws a Curveball: Some Lose Chase Unless New Home Bought Fast,” *The Times-Picayune*, May 10, 2007.



4.F: The Escrow Account

INITIALLY, ROAD HOME grants were held in escrow for recipients. The intent was to ensure that grantees spent money on home repairs and to verify that they did not use the money to pay mortgages. Grantees cited the escrow account as the primary reason that repair progress had been so slow. The presence of escrow accounts also prompted HUD to classify Road Home as a “rebuilding” and not a “compensation” program (though the LRA claimed HUD had previously approved inclusion of the escrow policy in the program design). The March 2007 HUD ruling made Road Home subject to review under federal environmental, fair wage, and housing laws. The HUD ruling and its consequences prompted Road Home to eliminate the escrow account and shift the funding mechanism to a lump-sum payment model in April 2007. The switch to lump-sum payment amounts did prompt an increase in the rate of grant closings.

4.G: Funding Shortfalls

ROAD HOME DISCOVERED a budget shortfall of \$3 to \$6 billion soon after it began. This shortfall stemmed from

incorrect damage estimates and the expanded eligibility criteria that allowed more residents to apply than initially projected. The state of Louisiana petitioned Congress, which awarded an additional \$3 billion appropriation in November 2007.

The state and federal governments offer different reasons for Road Home’s funding shortfall. Federal Gulf Coast Administrator Donald Powell claims that, in early negotiations, representatives from the LRA agreed to fund 106,000 homeowners who suffered only flood-related damage. The LRA estimated the average grant at \$72,000, for a total cost of \$7.6 billion. The federal government assumed responsibility for levee-related damage only. The state argued that Road Home’s representatives never agreed to exclude claims that resulted only from wind damage. For its part, the LRA asserts that responsibility for the shortfall lies with FEMA’s inaccurate damage estimates, homeowners’ inadequate insurance coverage, and lower-than-expected insurance payouts.

In addition to detracting from the recovery effort, ongoing news of Road Home’s large funding shortfall alarmed and confused applicants throughout 2007. During one-

on-one interviews with our research team, applicants said that this fear discouraged some from applying.

4.H: Buyouts

AS RECOVERY NEEDS in Louisiana evolve, Road Home faces emerging problems. For example, what should be done with the properties that thousands of homeowners elected to sell to the state rather than repair?⁴⁴ Currently, the Louisiana Land Trust owns 7,000 such properties. Some of the remaining 60,000 Road Home applicants who have not yet selected a Road Home option (see Figure 2) may also sell their homes to the state, so the number of state-owned properties is likely to rise.

The Louisiana Land Trust plans to put 240 units on the market, sell another 240 to affordable housing developers, turn 100 properties into green space, and put 75 lots into the Lot Next Door program (an initiative that allows residents to purchase vacant lots adjacent to their properties). Current estimates suggest that this process of unloading properties will take ten years and cost taxpayers \$15 million per year.⁴⁵

The Times-Picayune reports that the Louisiana Land Trust planning board wishes to avoid flooding the real estate market for fear that it will lead to a decline in property values.⁴⁶ However, one member of the same planning board argues that “soaring construction costs and homeowners insurance premiums have driven the price of housing so high that it has limited demand and hindered affordability.”⁴⁷

As housing costs and rents in New Orleans and across Louisiana rise, it may be wise to increase the supply of housing. Storm-damaged properties could be sold at a low price (e.g., the value of the land, a deeply reduced price, or a special “affordable housing” rate of \$1), leaving the new homeowner with the cost of building or repairing the residence, plus the cost of insuring the property. The precedent for such an option took place recently in December 2007 when New Orleans sponsored its second Internet tax sale of pre-Katrina delinquent properties. At this writing, nearly 2,000 properties had been sold to buyers who agreed to pay overdue taxes, penalties, and interest on the properties.⁴⁸

Placing Road Home buyouts in a similar sale would provide an opportunity for many lower-income individuals to buy a property and contribute significantly to Road Home’s goal of affordable housing development. Rapid implementation of such a process could speed redevelopment and permit housing to be reclaimed by New Orleans’ residents.

5 Mississippi in Contrast

CONGRESS ALLOCATED THE Mississippi Development Authority (MDA), an agency located in the Office of the Governor, \$5 billion in CDBG funds to assist with post-hurricane recovery. The MDA used \$3 billion to create the Homeowner Assistance program, an initiative that assists homeowners who “experienced flooding outside the flood plain, having relied to their detriment on the NFIP guidelines on the need to carry flood insurance.”⁴⁹ In the first phase of the program, the MDA identified roughly 31,000 homeowners living outside the flood zone who maintained property insurance—and in some cases flood insurance—but in insufficient amounts. It offered these homeowners a maximum of \$150,000 based on damage estimates and less insurance payouts or other government funding. In the second phase, the program extended eligibility to all homeowners in Harrison, Hancock, Jackson, or Pearl River counties who suffered Katrina-related flood damage, regardless of whether they carried the appropriate amount of insurance. Second-phase grantees were offered a maximum of \$100,000, based on damage estimates minus payments from insurance or other government programs. Grantees were not required to spend the money on home repairs. But, if choosing to rebuild, owners were required to sign a covenant agreeing to carry the appropriate insurance on the property and adhere to building codes.

Though not without complications, the design of Mississippi’s Homeowner Assistance program differs sharply from that of Road Home. For example, though Mississippi used a similar formula to calculate payouts (ascertain the amount of damage based on pre-storm value and subtract insurance payouts from the grant total), the program’s

44. Road Home created the Louisiana Land Trust to handle the acquisition, maintenance, and management of properties.

45. David Hammer, “N.O. Aims Plans for Road Home Lots: 10-year Strategy May Cost Millions,” *The Times-Picayune*, November 28, 2007.

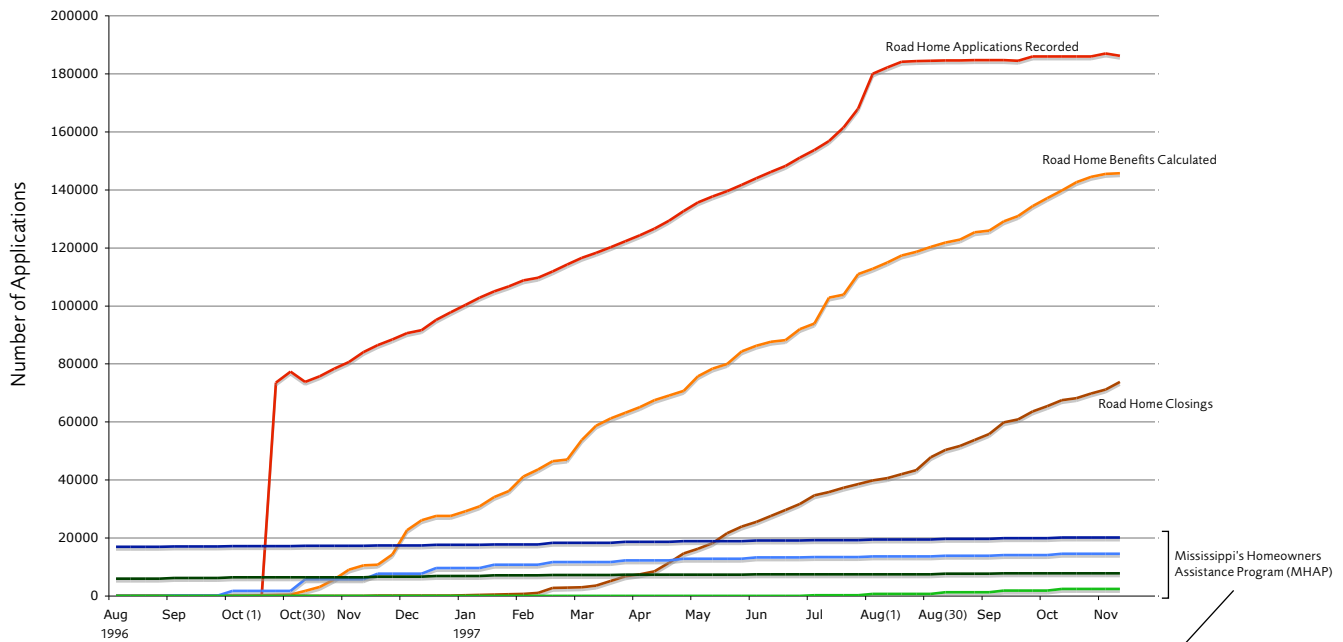
46. *Ibid.*

47. *Ibid.*

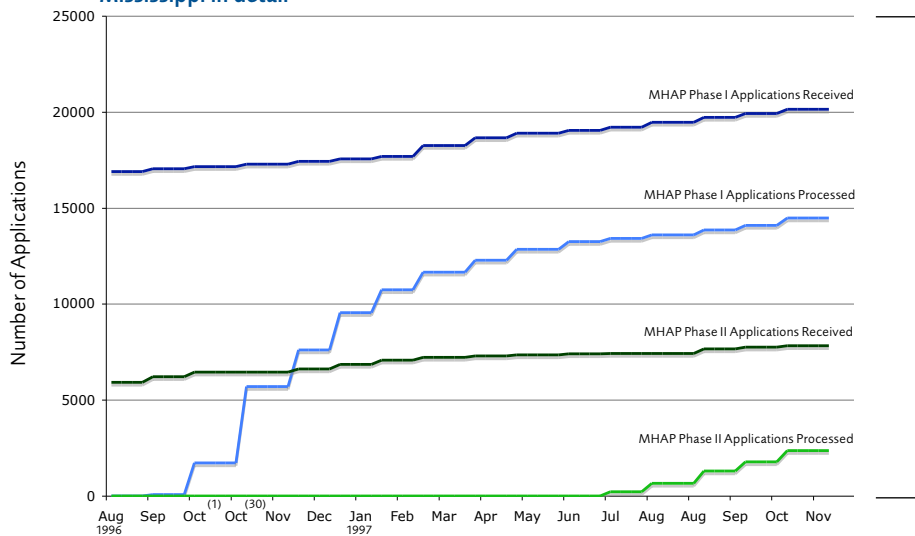
48. *The Times-Picayune* Updates Online, “City’s second Internet tax sale in progress,” *The Times-Picayune*, December 12, 2007.

49. Mississippi Development Authority, *Homeowner Assistance Program Partial Action Plan* (Jackson, MS:MDA, 2006).

GRAPH 2: PROGRAM APPLICATIONS
Comparing Road Home and Mississippi's Homeowner Assistance Program



Mississippi in detail



eligibility requirements were far more stringent. As mentioned earlier, Mississippi initially limited eligibility to residents who experienced only flood damage and lived outside the flood plain, but later expanded eligibility for the program as resources became available.

Mississippi and Louisiana's programs were not only conceptually different; they also faced enormous variances in scale. As graph 2 indicates, Louisiana's Road Home program received nearly six times as many applicants as did Mississippi's Homeowner Assistance program. This was due in part to the broad eligibility criteria established by

Road Home, but also to the fact that densely populated parts of southeastern Louisiana received significant damage. When considering the hurricanes' impact, framers of Louisiana's Road Home program may have felt compelled to implement a broad program design. Regardless of intensity of storm damage, the disparity in program scale could have been avoided had Road Home framers opted for the strict eligibility established in the Mississippi program. This course of action might also have promoted Road Home payouts that matched the speed of the Homeowner Assistance payouts.

Mississippi's Homeowner Assistance program did not penalize applicants electing to leave the state or shift from owning to renting, thus avoiding any attempt to influence homeowners' decisions. (The program does require flood insurance to be held in perpetuity on rebuilt properties.) Mississippi also avoided the problems associated with Road Home's escrow account by awarding grants directly from the outset. Though the grant award practice, together with many other Road Home policies, was later simplified, Road Home's initial complex design nevertheless confused and discouraged early applicants—precisely the people Louisiana needed to return in order to assure effective long-term recovery.

Road Home's initial complex design nevertheless confused and discouraged early applicants—precisely the people Louisiana needed to return in order to assure effective long-term recovery.

To be sure, Mississippi's Homeowner Assistance program has faced its own set of complications. It has come under heavy criticism for awarding contracts to three state legislators. Road Home has been free of corruption allegations and appears to have effectively prevented egregious applicant fraud, though the program has achieved accuracy at the expense of speed, a tradeoff explored later in this Policy Comment.

Like applicants in Louisiana's Road Home program, applicants to Mississippi's Homeowner Assistance program have complained about low home value estimates. These complaints spurred policy changes, implemented in October 2006, that allow more appraisal methods to be used when determining award amounts. However, policy changes in the Mississippi program were neither as frequent nor as comprehensive as those within Road Home. Because Mississippi's intent and scope were concrete and measurable and clarified in the program's design stage, the MDA had less difficulty revising and dealing with vagaries as they arose. We acknowledge that conditions (both pre- and post-storm) were markedly different in Louisiana and Mississippi, but the short-term experi-

ence, at this writing, indicates that the benefits of Road Home's specificity are far outweighed by Mississippi's gains of simplicity and speed.

6 Case Study: Stay or Go

PRIOR TO HURRICANE Katrina, Roger Walker and his family lived in northern Gentilly, a neighborhood of New Orleans.⁵⁰ He worked at a used car dealership 15 minutes from his home. Two days before Katrina made landfall, he and his family evacuated to the home of relatives in Texas, packing only enough clothing and supplies for a weekend stay. In their absence, their home was flooded with nearly 10 feet of water, completely ruining the property and its contents. The Walker family now faces the same decision as thousands of other displaced residents across Louisiana, but especially in New Orleans: Is it more beneficial to return or to resettle? We explore below several factors that influence the deliberations of evacuees.

Thomas Schelling describes post-Katrina resettlement as an acute problem of coordinated expectations, asserting that for one household—such as the Walker family—to find it beneficial to return, other households must also return.⁵¹ The few early returnees bear the burden of rehabilitating the entire city, despite diminished access to everyday public infrastructure that does not yet function at pre-storm capacity.

Road Home framers attempted to address the threat of out-migration by penalizing the decision to leave and incentivizing the decision to return, thus attracting enough returnees to remove the strong disincentives for not returning. While this effort may have succeeded to some extent, the effect was muted by the slow payout rate and applicant confusion, counteracting any possible gains. Rather than attempting to shape evacuee decisions, program framers could have exchanged control for simplicity, a programmatic tradeoff that may have enabled residents to more easily coordinate with one another and perhaps more easily finalize decisions to return or relocate.

For evacuees from New Orleans living temporarily in another state and trying to determine whether to

50. The Walker family is fictional but is based on an interview conducted on November 29, 2007 by the authors in New Orleans with a family that returned to the city in July 2007.

51. Thomas Schelling interviewed in Peter Gosselin, "On Their Own in Battered New Orleans," *Los Angeles Times*, December 4, 2005.

return, the choices available to them can be thought of as an investment whose reward is partially dependent on the choices of others. They must consider many factors simultaneously, among them neighborhood safety and access to quality employment, schools, and public services. Fundamentally, evacuees must use limited information to extrapolate what the neighborhood and city will be like long-term.

Schelling’s assertion that for one household to benefit from returning other households must return as well is corroborated by empirical findings in New Orleans. An examination of block-level return patterns using postal data suggests a strong tendency for neighborhoods to become either clusters of activity or deserted ghost towns.⁵² This is unsurprising, since the sole returnee in an empty neighborhood faces not only the problems described above, but also confronts both the potential depreciation of property values as nearby homes fall into decay and the risk that their homes will be deemed “green-space” and subsequently bulldozed.

The Walkers face a great deal of uncertainty about the exact reward amount if they do return to New Orleans. Mr. Walker reasons that the eventual Road Home payout, the equity in his home, and income from a job comparable to what he had before the storm would all be worth \$50,000 to \$90,000—depending largely on the amount of the Road Home grant and his property’s value (which depends, in part, on how many neighbors return).

If the Walkers return but are the sole family on the block, they risk rapid depreciation of their home as neighborhood blight increases. If this scenario develops, Mr. Walker estimates the monetary value of his property, income stream, and Road Home grant at \$30,000 to \$40,000, with the potential for further decrease over time. If the Walkers remain in Texas, they still risk rapid depreciation, but they are certain of being able to take a buyout from the state—albeit below market value—and of securing a job with an estimated value of \$60,000 a year. These values are constant regardless of what choices their neighbors make. Thus, while the Walkers would rather return to New Orleans, they recognize that leaving is the “safer” option since the neighbors’ choices cannot be foreseen.

It is possible to examine the choices faced by evacuees such as the Walkers through the lens of game theory.

Table 2 describes the choices available to the Walker family, summarizing potential dollar amounts based upon the family’s choices and the choices of their immediate neighbors. Each day that passes without a return-or-relocate decision costs the Walkers missed opportunity, regardless of whether they elect to return to New Orleans or stay in Texas.

TABLE 2: INCENTIVES FACING THE WALKER FAMILY

		Walker Family	
		Return	Leave
Other six families on their block	Return	\$50,000 - \$90,000	\$60,000
	Leave	\$30,000 - \$40,000	\$60,000

Further, the Walkers are not unusual in this regard. Many of their neighbors face approximately the same incentives. Most are unable to make reasonable guesses about the likelihood of more than a few others returning based upon extremely limited information as to the size of the Road Home payout. In the absence of perfect information and complete communication, achieving coordination in such a scenario is extremely difficult.⁵³

The best way to improve coordination in such a situation is to reduce the amount of uncertainty—or provide as much of a commitment to the payout figure as possible—across the entire community. This would allow residents to better extrapolate not only their own incentives, but also those of their neighbors. The main difficulty of achieving coordination arises when evacuees begin guessing—about the Road Home payout amount, the choices of close neighbors, and the long-term viability of the neighborhood. The earlier residents are made aware of the actual value of choices available to them, the less difficulty they will have in making life-altering decisions.

7 Policy Recommendations

LOUISIANA IS NEARLY two-and-a-half years into recovery, and while the state will recover, few people are certain of New Orleans’ future. Drastically revising the Road Home program would be unwise, since many of the city’s former residents have based plans and expectations

52. Amy Liu and Allison Plier, *The New Orleans Index: Tracking Recovery of New Orleans and the Metro Area* (Washington, D.C.: The Brookings Institution, January 15, 2008), <http://www.gnocdc.org/NOLAIndex/ESNOLAIndex.pdf>.

53. See Hans Carlsson and Eric van Damme, “Global Games and Equilibrium Selection,” *Econometrica* 61, no. 5 (1993): 989–1018, for a further discussion of the difficulties of coordination in situations featuring complementarities and noisy payoffs.

upon commitments made by the program. Restructuring might aid long-term recovery, but it would also heighten applicant confusion.

There are, however, small improvements that could be made to existing policies on both federal and state levels without introducing additional confusion.

7.A: Recommendations for Road Home: What Can Be Done Today

1. Release HMGP funding. FEMA should relax the regulatory requirements surrounding elevation grant dollars. Those Road Home grantees who began elevation work based on the promise of future funds should not be denied grants. Instead, regulatory bodies should inspect work to ensure that elevation projects are completed according to code and should suspend requirements for environmental, cost-benefit, engineering, and historical preservation rules governing the traditional HMGP program.

2. Put buyouts on the market. The Louisiana Land Trust should sell some currently held buyout properties on the open real estate market rather than maintaining them for an indeterminate period of time. These homes could be sold at auction or on a first-available basis. Rising home prices and rents in New Orleans are in part due to the reduction in decent housing stock available since Hurricane Katrina.⁵⁴ This upward pressure on home prices could be alleviated by placing selected properties on the market. However, the state may wish to maintain, with the intent of converting to green space, repetitive-loss properties or those located in high-risk areas.

7.B: Recommendations for the Future: Designing Ex-Post Disaster Policies

Ex-post disaster relief is not effective compensation policy. Such policies generally fail to distribute funds accurately and efficiently, and they may contribute to mor-

al hazard if they encourage homeowners not to insure against disaster.⁵⁵ In the case of Road Home, the state contributes to this hazard by subsidizing residents who relocate to high-risk areas before improvements to hurricane protection systems are made. Government at all levels could more efficiently invest in such *ex-ante* policies as mitigation measures (improved engineering, responsible maintenance) that may reduce the scope of disaster and accurately priced insurance policies that convey the risk facing residents choosing to live in a floodplain. Absent accurately priced NFIP premiums, which themselves hinge on accurate federal flood maps, individuals will operate under a clouded picture of risk and may thus fail to protect against future disaster.

The situation facing New Orleans stems from an institutional environment shaped by decades of government policy and social trends, as well as the interplay of federal and state regulations governing disaster relief. Because the institutional environment is not likely to change significantly, any future recovery program on a similar scale will operate in a similar environment. As such, we offer pragmatic recommendations for disaster recovery policy within such a context.

1. Establish a clear rationale for relief. Katrina's worst damage resulted from infrastructure failure. The levees' structural integrity was assumed, both by individuals and by the NFIP. The residual risk of living near these levees was not properly incorporated into insurance policies, which relied on FEMA maps. The U.S. Army Corps of Engineers, in partnership with state and local governments, was responsible for maintaining and assessing the ability of the levees to withstand a category three hurricane. Therefore, government, one can convincingly argue, is liable for the flood damage not adequately covered by insurance. In constructing a homeowner relief policy, policy makers should start from this point. Figure 4 summarizes funding priorities.

a) Award grants to eligible homeowners who lived outside of the designated flood plains and were

54. Another reason for higher home prices in New Orleans is that taxpayer-provided disaster relief eliminates the downward pressure on housing prices by eliminating the risk of living in a dangerous area. Houses should be cheaper in New Orleans because it is a higher-risk location relative to, for example, Memphis, Tennessee. But the government subsidies for housing replacement causes New Orleans' housing prices to rise as the financial risk of living there is eliminated. Memphis residents see their housing prices drop as people are no longer willing to pay a premium to live in a less risky location. The result, as housing prices in both cities approach similar levels, is that consumers become apathetic regarding the difference between the locations. See Steven Landsburg, "No Relief," *Slate.com*, September 7, 2005.

55. James Buchanan, "The Samaritan's Dilemma," in *Altruism, Morality and Economic Theory*, ed. E.S. Phelps (New York, NY: The Russell Sage Foundation, 1975), 71–85. Government-provided disaster relief, while well intended, establishes perverse incentive, because victims expect assistance and do not undertake measures to protect themselves against future disaster.

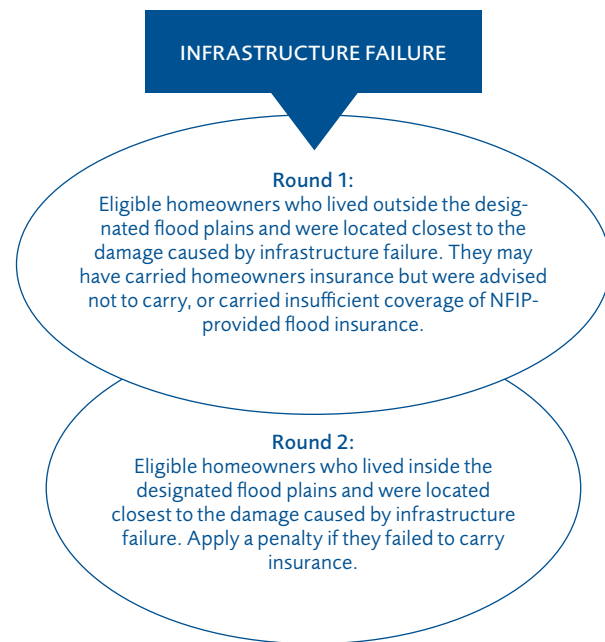
located closest to the damage caused by infrastructure failure. These homeowners may have carried homeowners insurance, but they were advised either to carry no NFIP-provided flood insurance or an insufficient coverage thereof. Apply penalties to those who did not carry homeowners insurance. Award grants to compensate homeowners who were told not to carry flood insurance but rather to rely on the levees as protection.

b) Expand eligibility to those who were located in flood plains, whether insured or uninsured. Apply a penalty if they failed to carry homeowners and/or flood insurance. Exclude wind damage-only claims. Wind damage should be covered by homeowners policies. Penalize those not carrying homeowners insurance by not awarding them grants.

2. Determine whether accuracy or speed is more important. Analysis provided in Sections 5 and 6 of this paper indicates that coordination of plans soon after a disaster is critical to long-term rebuilding. The earlier evacuees are aware of their own circumstances and can plan around the circumstances of others, the faster rebuilding will occur. This process resembles, in some ways, a “tipping point”—as soon as evacuees witness their neighborhood returning to a normal state, they are much more likely to return. Unfortunately, early returnees are faced with very high “first mover” costs. Allowing those who are willing to move back early to do so as soon as possible is extremely important and provides a justification for streamlining the speed of compensation programs, even if this reduces accuracy in awarding funds.

3. Adopt a “Homeowners Know Best” approach. Do not reduce grants based on where residents decide to live or how they intend to use their grants. Road Home’s attempt to engineer lives and recreate neighborhoods is one of the program’s fundamental flaws. Post-disaster, it is an area’s residents who best understand their financial and personal constraints. It may be that some are better off taking an opportunity elsewhere, or they may have planned an out-of-state move prior to the disaster. Such residents are, in effect, penalized for making autonomous decisions. Governments should focus on compensating individuals for property losses suffered as a result of government failure, and not on forcing individuals to repair their homes or return to their pre-disaster city or state.

FIGURE 4: POLICY RECOMMENDATION: PRIORITIZATION OF AVAILABLE FUNDS



4. Keep the policy goals simple. Disaster relief policies should remain policies that offer relief following a disaster. They should not address other issues, such as affordable housing and housing stock redevelopment. While these may be important goals, including them in a disaster relief program dilutes funds and confuses intents.

5. Keep the program simple. Road Home’s complex rules, regulations, and application process were in part intended to minimize fraud. Program designers are to be commended for careful stewardship of federal dollars, though careful stewardship may also have been achieved by restricting program eligibility to a more carefully defined group. Limited eligibility would also reduce the number of applicants, thus freeing resources to police potential fraud.

6. Let markets provide flood insurance. The main justification for the National Flood Insurance Program (NFIP) is that it provides affordable insurance to those otherwise unable to afford it. However, one consequence of government provision of flood insurance is that no market alternatives have developed. This permits NFIP policies to continue relying on outdated flood maps and avoid pricing the residual risk associated with collapse of flood protection systems. Also, by subsidizing premiums, NFIP leaves its policyholders with an inaccurate picture of risk, which may encourage people to live in more risk-prone areas or fail to undertake flood mitigation measures.

Because advances in risk modeling enable insurers to more accurately price risk and financial instruments help restock post-disaster capital reserves, private provision of insurance is both feasible and profitable. Policy makers should eliminate public provision of insurance altogether or, failing that, price risk as accurately as possible by requiring state insurance programs to purchase reinsurance at actuarially sound rates.⁵⁶

8 Conclusion

ROAD HOME HAS failed to promote rapid reconstruction of New Orleans neighborhoods because its goals exceed the scope of a disaster compensation program. The 2005 hurricanes caused as much damage as they did in part because government at all levels failed to accurately inform homeowners of the risk they faced and failed to properly manage levee infrastructure. In crafting a disaster compensation policy, the Louisiana Recovery Authority should have restricted program eligibility to those homeowners who suffered as a result of government failure. Expanding the program scope to include those who suffered wind-related damage and offering compensation to the entire state contributed to a fiscal shortfall and moral hazard.

Road Home's exit penalty has also proven extremely damaging to Louisiana's long-term recovery. A disaster compensation policy should not penalize residents for choosing to leave the state or become renters, options that may actually be in their best interests. In effect,

the exit penalty undermines autonomy and predates receipt of aid on choices that may worsen residents' financial and personal situations.

The deepest irony of Road Home is that its policies have created multiple layers of uncertainty, precluding informed action. Program creators acknowledge that they are uncertain about how neighborhoods will recover. This inability to predict residents' actions hampers the state's ability to identify green space. The LRA's proposed ten-year process for unloading property buy-outs continues to distort the real estate market. This uncertainty makes it difficult for residents to make decisions about housing repairs and investments.

Road Home policies, which attempt to engineer lives and re-create the past, have been a primary cause of the uncertainty and instability that continues in Louisiana, particularly in New Orleans. Rather than launching the biggest housing recovery program in U.S. history, policy makers should work within the role and limits of government in disaster recovery, clearly identifying liability for losses; compensating individuals quickly without trying to influence choices; and establishing and enforcing ex-ante disaster prevention mechanisms—including mandatory flood insurance and homeowners insurance, elevation and mitigation measures, and adherence to building codes.

Road Home's broad goals of neighborhood recovery and affordable housing development dilute ex-post disaster assistance, confuse intents, and distort housing markets—all consequences that weaken and stall the recovery of Louisiana.

56. Sutter, *Ensuring Disaster*, 3.





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**THE ROAD HOME:
Helping Homeowners in
the Gulf After Katrina**

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MAY 2008

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