Planning, Plans, and People: Professional Expertise, Local Knowledge, and Governmental Action in Post-Hurricane Katrina New Orleans

Marla Nelson
Renia Ehrenfeucht
Shirley Laska
The University of New Orleans

Abstract

In rebuilding after the largest disaster in our nation's history—Hurricane Katrina—New Orleans has faced two key challenges: (1) how to enable all residents, including those with the fewest resources, to return to the city without recreating pre-Hurricane Katrina vulnerabilities and the inequities they represent; and (2) how to prioritize limited redevelopment resources. A citywide recovery strategy was necessary to address these challenges.

The purpose of this article is to examine the planning processes and the difficulties the city has faced in developing its recovery blueprint. Two interrelated, yet distinct, tensions played out through these processes: (1) tension between the need for "speed and deliberation" (Olshansky, 2006) in formulating a recovery blueprint and (2) tension between the relative weight afforded professional and resident assessments and priorities in setting recovery agendas. These tensions, accompanied by unanticipated resident distrust of government and professionals and the failure of city officials to designate quickly a single agency with the authority to guide a comprehensive recovery planning process, slowed the development of a citywide rebuilding strategy.

Section 1. Introduction

On August 29, 2005, Hurricane Katrina made landfall in Plaquemines Parish, Louisiana, southeast of New Orleans. Sections of the levees protecting New Orleans breached from storm surges, flooding 80 percent of the city. In many areas, the water stood for up to 6 weeks and, in some places, the flooding was as deep as 10 to 15 feet. Most of the streets were inundated (UNOP, 2006), and more than 100,000 residential structures were flooded; of those structures, more than 78,000 were severely damaged or completely destroyed (HUD, 2006). Damage to infrastructure and public facilities was equally catastrophic; for example, of 126 public schools, only 7 had no damage and more than half had damage that exceeded 25 percent of their replacement value (UNOP, 2006). The schools, like much of the city's infrastructure and public facilities, had also suffered from years of deferred maintenance. Although the Federal Emergency Management Agency (FEMA) is providing resources to repair infrastructure and public facilities to pre-Hurricane Katrina levels, the resources are not, in many cases, adequate to bring those facilities to levels that approach current standards.

With such extensive damage, rebuilding any city would be difficult. The situation was more complex in New Orleans, however, because of its trenchant pre-Hurricane Katrina problems. With a July 2005 population of a little more than 452,000 (U.S. Census Bureau, 2007), New Orleans had been losing population since 1960. Population decline was accompanied by an increasingly polarized, slow-growing economy and extreme poverty. Although the flooding impacted 77 percent of the city's population (UNOP, 2006), affecting people and neighborhoods across sociodemographic lines, Hurricane Katrina disproportionately affected African Americans, renters, people with low incomes, and the elderly, exacerbating many pre-Hurricane Katrina inequities (Hartman and Squires, 2006; Laska and Morrow, 2006; Logan, n.d.).

Because New Orleans faced so many pre-Hurricane Katrina problems, rebuilding the city as it had been was impossible. Many people hoped that New Orleans could be rebuilt better. New Orleans could have good schools, less violence, higher paying jobs, and better city services and could be less susceptible to damage from future flood events. Some observers outside New Orleans, however, questioned whether New Orleans should be rebuilt at all, given its vulnerable location, declining population, and relative poverty. If the latter argument had any merit, it quickly became moot as residents and business owners, relying on savings, insurance money, and other resources, returned to New Orleans and began to rebuild. In July 2007, nearly 2 years after Hurricane Katrina made landfall, the city had an estimated 300,000 residents, two-thirds of its pre-Hurricane Katrina total, and redevelopment was occurring throughout the city (Eggler, 2007).

In rebuilding after the largest disaster in our nation's history, New Orleans has faced two key challenges: (1) how to enable all residents, including those with the fewest resources, to return to the city without recreating pre-Hurricane Katrina vulnerabilities and the inequities they represent and (2) how to prioritize limited redevelopment resources.

In addition, rebuilding has had to occur at three, interrelated scales: (1) the individual/household level, (2) the neighborhood level, and (3) the citywide level. Each rebuilding level involves corresponding decisions and actions.

1. People have been making individual and family decisions about returning and rebuilding their properties and acting on these decisions.
2. Individual decisions both depend on and affect neighborhood recovery. Residents who have decided to return are committed to rebuilding their neighborhoods and thus work with neighbors to (a) make sure property adjacent to theirs is not abandoned, (b) clean the streets, (c) advocate for those who need help, and (d) encourage nearby institutions and businesses to rebuild.
3. Decisions about infrastructure, public building repairs, and city service priorities must be made at a citywide scale.

Inevitable, but necessary, tension exists among these scales of decisionmaking. Although individual and neighborhood actions can and should influence citywide rebuilding strategies, simply allowing neighborhood efforts to filter up to the municipal level will not always enable city officials to make difficult decisions. Not all facilities can be rebuilt at once, and, after a disaster has occurred, enough money is never available for every project (Olshansky, 2006). Scarce resources will inevitably benefit some neighborhoods more than others, and the situation in New Orleans begged for a citywide plan to reduce future flood risks and prioritize rebuilding in the most equitable way possible.

To address these challenges, New Orleans Mayor C. Ray Nagin initiated a citywide recovery planning process in September 2005. Almost 2 years and two planning processes later, the city has adopted multiple plans with differing priorities as its official recovery document. A citywide reconstruction framework is just taking shape through the designation of 17 damaged business zones targeted for investment.

The purpose of this article is to examine the planning processes and the difficulties the city of New Orleans has faced in developing its recovery blueprint. We identify two significant sources of conflict or tensions that played out through the recovery process: (1) tension between the desire to rebuild quickly and the deliberation necessary to craft credible programs and policies to ensure safe and equitable rebuilding (Kates et al., 2006; Olshansky, 2006) and (2) tension in striking a balance between professional and resident guidance in the planning processes and establishing citywide rebuilding priorities. We demonstrate how residents are critical in rebuilding efforts but also how neighborhood efforts are not enough. The failure of local officials to designate a single, accountable agency to oversee recovery planning hindered the development of a clear, citywide rebuilding strategy. Furthermore, in failing to anticipate and comprehend resident distrust, local government missed an opportunity to engage residents early on in a constructive dialogue about the difficult decisions the city had to make to reduce risk and facilitate an equitable and efficient recovery.

In the following sections, we discuss the tensions and local government missteps that impeded the development of a citywide recovery strategy. In Section 2, we detail three (of four) post-Hurricane Katrina citywide planning processes and the city of New Orleans Office of Recovery Management's (ORM's) recovery strategy, discussing how the tensions between "speed and deliberation" (Olshansky, 2006) and between resident and professional guidance played out in each of them. Each process approached planning and participation differently, and we discuss the consequences of using differing approaches as well as how the processes built on one another. In Section 3, using risk as an example, we discuss the differences in professional and resident knowledge and how these differences have resulted in conflicting recovery priorities and strategies. In Section 4, we focus on neighborhood

rebuilding efforts and provide an example of a rebuilding policy negotiated between residents and professionals. Finally, in Section 5, we highlight lessons from New Orleans for other cities that are strategizing disaster recovery plans.

Section 2. Multiple Processes in Search of a Plan: The Planning and the Participants

Planning in a postdisaster environment poses both opportunities and challenges. New Orleans experienced an unprecedented level of neighborhood activism as residents returned and began rebuilding. Residents were attentive to activities at all three scales of rebuilding and were ready to participate, an ideal situation for participatory planning. Additional participants add complexity to planning processes, however, and residents were also wary that some proposals might impede their rebuilding efforts. The two tensions that we mentioned in the introduction—(1) tension between the need for speed and the need for deliberation in formulating a recovery blueprint and (2) tension between the relative weight afforded professional and resident assessments and priorities in setting recovery agendas—also played out through these processes.

In the 2 years following Hurricane Katrina, New Orleans has had five citywide recovery planning schemes. The mayor appointed the Bring New Orleans Back (BNOB) Commission in the fall of 2005. In the spring of 2006, the city council implemented a neighborhood planning process, the New Orleans Neighborhoods Rebuilding Plan (NONRP), more colloquially called the Lambert plans. The Louisiana Recovery Authority (LRA), the state agency charged with planning and coordinating rebuilding efforts and serving as a conduit for federal aid to the city, initiated a districtwide and citywide planning process funded by a consortium of local and national philanthropies in the summer of 2006. In January 2007, the mayor established the Office of Recovery Management to coordinate the overall recovery process. The Federal Emergency Management Agency (FEMA) also led a planning process that resulted in plans issued in August 2006; the plans have had little influence within Orleans Parish, so we will not discuss the FEMA process further here. In this section, we examine the first four of these distinct recovery planning efforts to explain what they accomplished, what differences exist among them, and what accounts for the approaches each scheme took.

1. **BNOB.** The BNOB Commission's planning effort, a top-down process driven by professional planners and designers, resulted in a citywide plan that focused on urban design and land use solutions to reduce risk from future flooding, prioritize redevelopment resources, and sustain key services for a smaller projected population.

2. **NONRP.** In contrast, the city council's NONRP planning process, drawing from a community development and organizing framework that developed neighborhood plans for all flooded areas, identified resident-generated priorities and policies concerning what each neighborhood needed to rebuild. Unlike the BNOB Commission's process, the NONRP process was based on the assumption that all areas of the city would be rebuilt.

3. **UNOP.** The Unified New Orleans Plan, the subsequent philanthropic-funded process, worked on two spatial scales: the districtwide level and the citywide level. Planning teams produced 13 district rebuilding plans and 1 citywide plan. The district plans offered primarily urban design and land use solutions that drew on previous neighborhood planning efforts and on information from a series of UNOP-sponsored district and neighborhood meetings. The citywide plan proposed policy-oriented or regulatory mechanisms to prioritize rebuilding and promote safer development.
4. **ORM.** After these three planning processes, ORM was charged with developing a recovery *strategy*, a difficult task given the lack of coordination from plan to plan.[1]

Although all four recovery planning approaches have merit, given high levels of both community activism and resident mistrust, not all were equally effective. The mayor, when designing the BNOB Commission, did not fully acknowledge the need for a participatory process to both build residents' trust and foster dialogue among all stakeholders about rebuilding strategies and concerns. The city faced a significant conflict between needing to act quickly to get the city up and running and developing an inclusive, deliberative recovery process. This problem was compounded by the fact that most residents, particularly those hardest hit by flooding, were (and many remain) scattered throughout the country. Those residents who have returned have done so at uneven rates and often only temporarily to inspect their destroyed houses and belongings.

The planning process needed to be designed to foster participation. Governmental entities often include residents because doing so leads to more effective programs and policies. Participatory processes can be a way to share information, both for the government to convey information and for agencies to obtain information from residents about local areas and priorities; build trust and knowledge about a process or project; and lead to better, substantive decisions through discussion and information sharing (Beierle and Cayford, 2002).

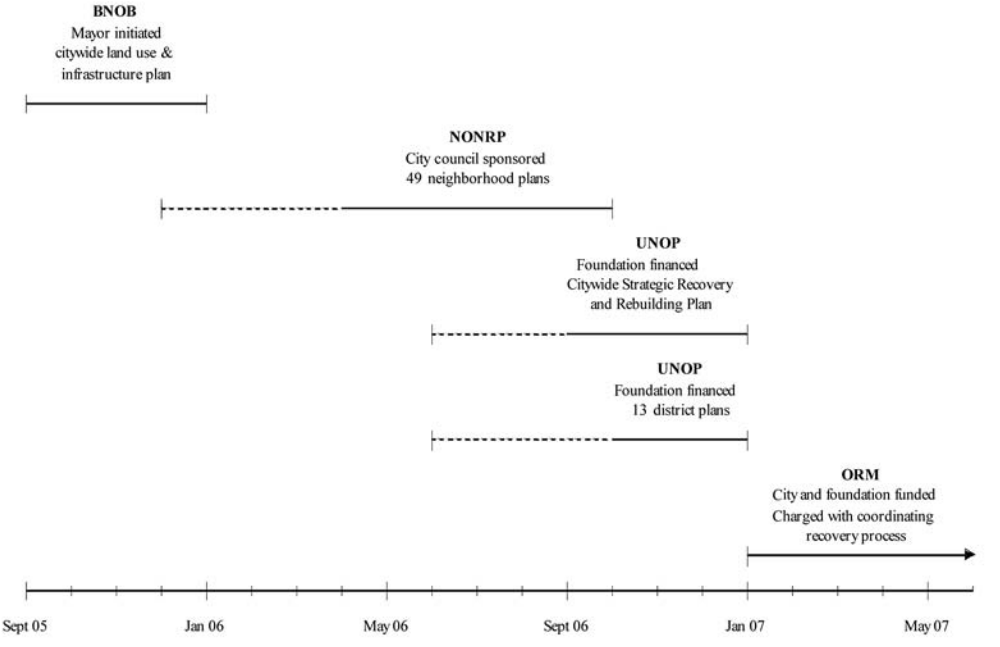
During the first process of the BNOB Commission, meetings were open to the public, but they were not designed to include nonprofessional residents. Out of perceived necessity, they occurred before most people returned, residents had to seek them out, and engaging residents as participants was not a priority. Subsequently, many residents opposed the BNOB Commission's proposals. The processes that followed emphasized more deliberation with residents. They were still designed to be quick and took between 4 and 7 months (exhibit 1).[2] Nonetheless, the longer the planning took, the more it was viewed as a roadblock to recovery. Both public officials and residents involved in planning processes want action and can become tired of endless streams of planning meetings without clear outcomes (Helling, 1998). Residents continued to attend meetings throughout each process; they feared not attending might hurt their neighborhoods, but they were ready to stop planning and start implementing. They were also exhausted by their individual rebuilding efforts and struggle to create a normal life for themselves and their families.

[1] Many stakeholders viewed the emergence of multiple processes as a power struggle among elite groups in the city to guide the direction of the development. The stressful situation and competition for scarce resources in postdisaster environments can also exacerbate existing divisions (Olshansky, n.d.).

[2] All three processes did their best given impossibly short timeframes.

Exhibit 1

Post-Katrina Planning Process Timeline



BNOB = Bring New Orleans Back. NONRP = New Orleans Neighborhoods Rebuilding Plan. ORM = Office of Recovery Management. UNOP = Unified New Orleans Plan.

Notes: The solid lines indicate approximate start and finish dates for the planning processes; the dotted lines indicate periods when the processes became public but had not yet begun.

The Bring New Orleans Back Commission: Resistance to a Top-Down Process

In the aftermath of Hurricane Katrina, New Orleans Mayor C. Ray Nagin appointed the BNOB Commission in September 2005. The commission, a group of 17 business and community leaders selected to assist and advise local officials with rebuilding the city, created seven committees (Culture, Economic Development, Education, Government Effectiveness, Health and Social Services, Land Use, and Infrastructure) to develop rebuilding plans for their respective sectors by the end of 2005. The commission's Land Use Committee, led by Joseph Canizaro, a local developer with strong ties to the White House, drew heavily on a rebuilding strategy proposed by the Urban Land Institute, a national land use and real estate think tank. The Land Use Committee hired Philadelphia-based planning firm Wallace Roberts & Todd to advise the committee and assimilate its discussions into a coherent plan. The committee's preliminary recommendations, announced in January 2006, included shrinking the city's footprint to sustain key services for a smaller projected population, imposing a 4-month moratorium on building permits in flood-affected areas, and implementing a 4-month neighborhood planning process in which residents of the city's 13 planning districts would be able to prove the viability of their neighborhoods by demonstrating that a significant proportion of the residents wanted to return. The recommendations also included the conversion of some properties in badly flooded areas to parks with water management systems.

The public outcry was immediate. The BNOB planning process and the commission's heavy representation from the business community fueled citizen distrust of the commission and its recommendations. Although the mayor was careful to appoint eight African-American, one Latino, and eight White commissioners, many residents, particularly African Americans, did not view the commission as representative of their interests. As Barbara Major, an African American and the only community activist on the BNOB Commission, noted, "I think some people don't understand that an equal number of black and white isn't the same as equity" (Rivlin, 2005: 11). The BNOB Commission likewise exacerbated long-standing tensions between the mayor and the city council. While the mayor put together the BNOB Commission, the city council assembled a rival, although short-lived, advisory committee on hurricane recovery. The mayor appointed then New Orleans City Council President Oliver Thomas to the BNOB Commission only after receiving significant pressure from the council (Burns and Thomas, 2006).

A smaller city footprint suggested that some residents would be prohibited from returning, and New Orleans would become more White and more affluent. Shrinking the city's footprint was particularly unpopular among African Americans, who made up nearly 70 percent of the city's pre-Hurricane Katrina population and were much more likely than White residents to live in flood-devastated areas of the city (Donze and Russell, 2006). No policies, other than some very general statements about mixed-income housing, were proposed to facilitate residents' return to other parts of the city. In the absence of such alternatives, shrinking the footprint was ultimately viewed as a means to keep many African Americans from returning.

Residents across the city demanded the right to return to their houses in their original neighborhoods, prompting the mayor and the city council to reject proposals for a smaller footprint and, instead, allow redevelopment in all areas of the city, even those most vulnerable to future storm damage. Those residents most exposed to flood risk, and those most severely affected by Hurricane Katrina, were the least trusting of the BNOB rebuilding process and the professionals involved in assessing risk. They did not believe their interests were adequately represented among BNOB Commission members and the BNOB planning process, nor did they think that the political leadership and business community had served them well historically. Distrust, which should have been anticipated, had far-reaching consequences because, in the face of strong opposition, the city's administration pulled back from the BNOB's suggestions without further discussing or refining them.

The structure and timing of the BNOB planning process contributed to residents' fears that their interests would not be reflected in the rebuilding plans. As noted at the beginning of this section, although the BNOB meetings had been open to the public, they occurred when most residents, particularly those hardest hit by the flooding, had not yet returned to the city. As a result, the meetings were attended primarily by professionals and residents who had been able to quickly return to the city and were not a representative cross-section of the city's pre-Hurricane Katrina residents. No attempts were made to ensure that more people participated in the BNOB meetings.

It was not solely the ideas generated by the BNOB Land Use Committee that engendered fear; it was the way the information was conveyed. The local newspaper, *The Times-Picayune,* ran a front-page article on the Land Use Committee's plan the morning it was presented to the public (Donze and Russell, 2006). The article contained a map with large green dots over areas at higher risk to flooding, visually suggesting that those areas should be converted into park space or green space.

Although the reporters attempted to convey that the green dots were not finalized decisions, a newspaper article was inadequate for explaining the complexity of the proposals and it was unable to engage in a discussion with a city of people still mourning their losses and trying desperately to decide how to move forward. Many residents understood that all green areas were slated for green space, and the green dot became a threat to neighborhood residents. Rather than be "green spaced," residents organized to prove the viability of their neighborhoods.

The New Orleans Neighborhoods Rebuilding Plan: Formalizing Neighborhood Planning

The BNOB Land Use Committee proposed a neighborhood planning initiative, which was to be led by local architect Ray Manning and former dean of the Tulane School of Architecture Reed Kroloff, to help neighborhoods establish their viability. It stalled, however, because FEMA was unwilling to fund a multimillion dollar planning process and the commission failed to secure funding from other sources for Manning and Kroloff's work. Despite the absence of a formalized process, neighborhoods, acting on their own, continued to organize and plan.

In December 2005, the city council passed a motion (Motion M-05-2005) to establish a neighborhood planning process. In contrast to the proposed BNOB process, the city council intended to facilitate recovery of all flooded neighborhoods. In the spring of 2006, the city council hired Miami-based Lambert Advisory and New Orleans-based SHEDO, LLC, to offer assistance to neighborhoods and develop plans for 49 of the 73 neighborhoods that experienced flooding depths of 2 feet or more. The purpose of the New Orleans Neighborhoods Rebuilding Plan, more colloquially called the Lambert plans, was twofold. The city council wanted to focus the disparate efforts of all the neighborhood groups and to provide technical assistance to develop project lists for procuring funding to facilitate the rebuilding of neighborhoods citywide. Although some residents and planners criticized this approach, research on city recovery from disasters has found that cities generally rebuild with similar urban form and that residents resist relocation efforts (Kates et al., 2006; Olshansky, n.d.).

Lambert Advisory and SHEDO contracted with numerous New Orleans-, Boston-, and Miami-based firms; held more than 100 formal meetings in the neighborhoods; attended additional meetings with organized neighborhood groups and helped groups form in other areas; met with individual residents; and produced plans that incorporated all flooded neighborhoods. The plans identified needed repairs to infrastructure and public facilities and included proposals to rebuild neighborhood and regional commercial centers. With estimated costs at $4.4 billion, the projects were divided into early-action (critical), mid-term (needed), and long-term (desired) categories (NONRP, 2006).

The city council, responding to the pushback from city residents, opposed several of the BNOB Commission's recommendations, and the assumptions underlying the NONRP reflected these concerns. Three assumptions addressed risk from future storm events: (1) with the help of the federal government, the storm protection system would be designed to withstand a 100-year storm; (2) stringent building codes would be enacted to limit wind (but not flood) damage from future storm events; and (3) the city would develop an effective evacuation plan to ensure that loss of life in future storms would be averted. A fourth assumption focused on what parts of the city would be rebuilt; NONRP respected the existing street grid and urban structure and planned for the recovery

of every neighborhood (NONRP, 2006). The final NONRP plan emphasized the need for adequate storm protection for the entire city, including areas considered higher risk, instead of emphasizing safe rebuilding practices to reduce relative risk within the city. This plan contrasted with the initial BNOB proposal to shrink the city's footprint or create an internal water management system that would convert some residential land to open space. The NONRP approach was consistent with the city council members' charge to represent their constituents, many of whom wanted their pre-Hurricane Katrina neighborhoods rebuilt and protected.

NONRP proposed four citywide policies to address key impediments to recovery that residents articulated. To partially combat the "jack-o'-lantern effect"—an unplanned mix of occupied and vacant houses throughout areas of the city devastated by Hurricane Katrina—the planners proposed a "lot-next-door" program that gave property owners the first opportunity to buy the lot adjacent to them, a program the city subsequently enacted. The planners highlighted a need for new, safer housing for seniors and outlined a strategy to facilitate its development. They also outlined a method for the city to direct money that would eventually be available from reselling property the state acquired through The Road Home Program, Louisiana's Community Development Block Grant-funded housing recovery program, to low-income neighborhoods that needed investment before Hurricane Katrina and needed additional reinvestment.[3] Finally, in response to an overwhelming desire for revamped neighborhood and regional commercial centers, while acknowledging that city governments have relatively less influence on this area of development, NONRP suggested an incentive program to encourage commercial revitalization (NONRP, 2006). By focusing on all flooded neighborhoods, the process also reassured residents that their neighborhoods would not be designated "unviable."

All four policies reflected neighborhood-scale concerns that would have a citywide impact. Professional and nonprofessional participants bring different types of information and thinking to the conversation (Fischer, 2000). When considering their own neighborhood, residents will more likely focus on detailed knowledge and systematic concerns about the neighborhood and examine the specificity of the situation. Professionals bring their disciplines' priorities and systematic thinking to rebuilding challenges. They will be less knowledgeable, however, about a particular neighborhood. Although the planners proposed policies to address major issues across the city, three of the four policies were within-neighborhood instead of between-neighborhood strategies, even though the actions were needed throughout the city. The fourth policy was citywide in scale, but it was a longer term strategy to direct resources to economically distressed neighborhoods. None of these was a strategy for prioritizing among neighborhoods in the short term.

A motion (Motion M-06-460) to accept the NONRP plans policies was unanimously passed by the city council on October 27, 2006. The motion directed that the plans be sent, along with select BNOB and Sewerage and Water Board of New Orleans projects, to the LRA.

[3] The Road Home Program entitles property owners to rebuilding funds (based on a formula that takes into consideration property value and damage minus insurance proceeds) and alternatively gives property owners the opportunity to sell their houses. The program includes a smaller, competitive component for rental buildings with one to four units that makes funds available for larger developments that provide affordable housing. The rental programs have an explicit criterion to choose neighborhoods that do not have high levels of "concentrated poverty." Because some neighborhoods have very low homeownership rates and high poverty rates, these areas will receive little benefit from either the owner-occupied or rental housing recovery programs.

The Unified New Orleans Plan: Integrating Participation in Difficult Decisionmaking

As the NONRP process was winding down, a third planning process, UNOP, got off the ground. The explicit thrust behind the new process reportedly was that the LRA would accept only a citywide plan that addressed both the flooded and unflooded neighborhoods. After FEMA decided not to fund the BNOB's neighborhood planning initiatives, representatives from the LRA approached the Rockefeller Foundation for financial support (Nee and Horne, 2007). The foundation contributed $3.5 million to the UNOP planning process. UNOP secured an additional $1 million from the Greater New Orleans Foundation and the same amount from the Bush-Clinton Katrina Fund.

UNOP became public in June 2006 with the issuance of a request for proposal (RFP) for planning teams. Representatives of Concordia Architecture & Planning, a local firm that acted as project manager, began attending community meetings to explain the process. UNOP's emergence caused confusion among residents about the legitimacy of the city council planning process that had been well under way when UNOP was announced. Although initial proposals for the UNOP process called for shutting down the city council planning efforts, the council's opposition to the idea prompted the decision that the UNOP process would integrate previous planning efforts into a single, citywide rebuilding plan (Warner, 2006) that would be used to guide the investment of public rebuilding funds and secure additional resources from federal, state, private, and philanthropic sources.

The Community Support Organization, a nonprofit association, and a nine-member advisory committee, composed of representatives from the Mayor's Office, New Orleans City Council, City Planning Commission (CPC) of New Orleans, and Greater New Orleans Foundation and five citizens (each representing one of the five city council districts), acted as the UNOP fiduciary and advisory agent. UNOP held public meetings in August 2006 to enable community members to provide input to the teams of local and national planners to which they would be assigned, and the planning teams officially held their first neighborhood meetings in October 2006. The planners produced plans for each of the city's 13 planning districts, and a separate team produced a single plan known as the Citywide Strategic Recovery and Rebuilding Plan (or the citywide plan).[4] The result was a 5- to 10-year blueprint for recovery that identified 95 capital and infrastructure projects totaling more than $14 billion in federal, state, and private funding. The plan was completed in January 2007 and approved by the CPC in May 2007.

Among the UNOP citywide plan's core principles was the decision to rebuild New Orleans as a "safer, stronger, and smarter" city through a number of voluntary programs designed to protect those residents most vulnerable to future flood events and enable all areas of the city to be rebuilt. Specifically, the plan proposed financial incentives for elevating homes to the FEMA Advisory Base Flood Elevation, rebuilding slab-on-grade homes on piers or with first-floor basements, and "clustering" households and businesses in areas that could support higher population and had less flood risk or could be made safer through flood-resistant designs.

[4] Planning district boundaries were determined during the completion of the 1999 Land Use Plan by the New Orleans City Planning Commission.

The concept of clustering represents a compromise between forcibly shrinking the city's footprint to restrict redevelopment in the most flood-prone areas and permitting redevelopment to continue throughout the city in a haphazard or unplanned manner. Although clustering has received praise from some local officials, the concept remains vaguely articulated. Because clustering is an abstract idea, not a well-defined policy or program, it has yet to gain traction among residents and, concomitantly, has faced no strong resistance from the public. It remains unclear where the financial incentives to encourage clustering would come from, how local officials would administer clustering programs, if encouraging relocation on a voluntary basis would produce substantial clustering, and, finally, what clustering would look like.

Although UNOP brought explicit discussions of risk back into the rhetoric concerning rebuilding, it was criticized from different sides. The Bureau of Governmental Research (BGR), a local watchdog organization, derided the citywide plan for failing to include any long-term, comprehensive flood protection projects (BGR, 2007a; BGR, 2007b). Moreover, BGR argued that, although the plan identified the vulnerability of specific areas to future flooding, it did not address location-based vulnerabilities in its proposed programs. Furthermore, because the plan's programs were vague and relied on voluntary actions instead of government mandates, critics have questioned the plan's usefulness as a guide for the city's future development (BGR, 2007a; BGR, 2007b). The plan's lack of clarity was heightened by the absence of maps showing where its various recommendations might apply.

For UNOP planners fearful of a public backlash, a certain level of abstraction was necessary; greenspacing of neighborhoods was not an option, and place-specific recommendations threatened to derail the process. The emphasis on individual decisionmaking reflects residents' uneasiness about mandates despite their desire for the creation of standards for reducing flood risk (America*Speaks*, 2006). Mandates not only threaten the sanctity of individual property rights, but many low-income and minority residents view them as mechanisms to keep them from returning to the city. As one ORM official described public perception, "recommendations to reduce flood risk equal 'ethnic cleansing'" (Nance, 2007).

In June 2007, the city council passed a motion adopting the BNOB, NONRP, and UNOP plans along with two community plans: (1) a plan developed by residents of the city's Broadmoor neighborhood and (2) the People's Plan for Rebuilding the 9th Ward (also known as the People's Plan), developed by the Association of Community Organizations for Reform Now (ACORN)—as the Citywide Strategic Recovery and Redevelopment Plan. The LRA accepted this plan later that same month.

The city's recovery plan needed to fulfill both communicative and substantive objectives. It had to convey to the LRA and to potential developers, philanthropic organizations, and federal agencies that the city had a credible rebuilding strategy. To rebuild effectively, the plan also should have included a strategy to focus infrastructure repairs and target funds given that not all improvements would occur at once and resources would be limited. Although the adoption of the citywide recovery document communicates to a national audience that city officials and residents have agreed on and adopted a roadmap for rebuilding, it is uncertain at this juncture as to what degree it will be able to guide rebuilding because it incorporated multiple plans with differing approaches and priorities.

In hindsight, instead of designing a new planning process, UNOP organizers should have added a citywide infrastructure recovery strategy to the ongoing process and, if necessary, expanded

NONRP's scope to include unflooded neighborhoods. These efforts would have been a more efficient use of time and resources, and they would also have lessened confusion about the planning efforts. The possibility of doing this, nonetheless, was hampered by too little time to come up with a workable collaboration and differing perspectives represented by NONRP and UNOP. On one hand, BGR and some LRA representatives were concerned that the NONRP planning process was viewed as "business-as-usual Louisiana politics" (that is, corrupt or potentially corruptible). On the other hand, many residents thought that UNOP was not only circumventing the democratically elected city council but also representing White, elite interests and would shift resources from flooded to unflooded areas.

The Office of Recovery Management: Developing a Citywide Strategy

As UNOP was finishing the city's last planning process, Mayor Nagin established the Office of Recovery Management to coordinate the overall recovery process. In December 2006, the mayor appointed Edward Blakely, an internationally recognized disaster recovery expert, to head the office. Blakely began working at ORM in January 2007, and, in February, he announced the names of five key ORM staff members, including a planner, lawyer, developer, business owner, and environmental planner. Four of the five staff members had lived in New Orleans before Hurricane Katrina occurred. The city gave ORM an annual budget of $500,000, which was supplemented with $1.54 million from the Rockefeller Foundation, Ford Foundation, and Bill & Melinda Gates Foundation (Donze, 2007; Hammer and Donze, 2007).

Blakely and his office were greeted with enthusiasm. In what many perceived as a leadership void, someone who confidently offered direction was greatly welcomed (Howell, 2007). Blakely's belief in his primacy, however, at times caused difficulty. In February 2007, *The Times-Picayune* reported that Blakely threatened to quit if his office was not in control of $117 million that the LRA designated for recovery projects in Orleans Parish. The LRA thought the newly restructured New Orleans Redevelopment Authority would receive the money. This was not the first time that Blakely had insisted on absolute control, having previously stated that FEMA recognized him as the only authority setting priorities for the city of New Orleans. FEMA had suggested that ORM be the coordinator of recovery efforts using federal disaster funds (Hammer and Donze, 2007).

On March 29, 2007, ORM announced its preliminary rebuilding strategy. From the start, Blakely expressed a need to identify trigger projects that would spark further development, stating that he hoped to have "cranes in the sky" by September (Bourbon, 2007), and ORM designated 17 target areas to receive a first round of funding. Blakely asserted that the target areas were chosen based on science, not politics (Krupa and Russell, 2007). The areas were, nonetheless, distributed throughout the storm-damaged areas, and the largest projects were in areas that had suffered the most damage. The two target areas slated to receive the most investment, the 80-acre Lake Forest Plaza Mall in New Orleans East and an area in the Lower 9th Ward, were also locations that, according to the UNOP assessment and the latest U.S. Army Corps of Engineers risk maps, were in drainage basins with less storm protection infrastructure and, therefore, were at greater continued risk.

The target areas were designated as "rebuild," "redevelop," or "renew" zones based on the amount of damage they had sustained (Krupa and Russell, 2007). The projects, drawn from the NONRP neighborhood and UNOP district plans, range in size from a farmer's market to a town center on

the Lake Forest Plaza site. Because two areas designated as renewal zones were located in New Orleans East and the Lower 9th Ward and other heavily damaged areas such as Gentilly and Lakeview have designated target zones, a columnist for *The Times-Picayune* speculated that the plan would lift the "curse of the green dot" (Grace, 2007).

ORM staff have suggested that the larger zones will encourage clustering, a UNOP policy recommendation. In this case, clustering refers to a process of targeting improvements so that residents and businesses would have incentive to concentrate in that area. Blakely's view of the purpose of clustering differed from that of the UNOP planners. The UNOP planners promoted clustering to reduce flood risk and allow for efficient service provision; when asked if he supported turning areas into green space or retention ponds, Blakely responded that economic development was his goal and that he would like to see "spaces that produce green dollars in the recovery areas. It's a lot better to have a small factory knocking down a (storm) surge than a blade of grass" (Hammer and Donze, 2007). In the former case, the city would have to acquire and maintain greenspace. In the latter, the property would be privately held and generate tax revenues.

Even though many residents welcome an established strategy, those living outside the target areas are concerned about whether their areas will receive needed infrastructure improvements, according to opinions expressed at the June 13, 2007, meeting of the Recovery Committee. ORM identified funding sources totaling approximately $1.1 billion from federal grants and bonds, but, at the time of this writing, the funding sources had not yet been secured.[5] ORM also has not provided details about what incentives, if any, other than rebuilt infrastructure, the city eventually hopes to offer developers in the target areas or how funds will be distributed among the areas.

Section 3. Government Efforts To Promote Safer Rebuilding **Strategies: Disagreements Between Experts and Residents**

After experiencing catastrophic events such as Hurricanes Katrina and Rita, many people might expect that rebuilding safely would be the city's foremost priority. In New Orleans, however, the issue continues to be one priority among many. In New Orleans and elsewhere, local governments are often unwilling to take action to manage development in a manner that reduces natural hazards despite the losses suffered by residents as a result of disasters. Burby (2006) attributes the failure of local government to mandate safe rebuilding practices to uninformed decisionmaking about urban development. To characterize local government action as merely uninformed, however, fails to explain the complexity of postdisaster planning and decisionmaking and the role politics plays in determining how recovery takes shape (Laska and Morrow, 2006; Wisner, 2004).

After a disaster occurs, city officials must make decisions quickly to guide all individual decisions that will be made and reduce uncertainty for individual decisionmakers (Haas, Kates, and Bowden,

[5] Proposed revenue sources include $260 million in general obligation bonds approved by New Orleans voters 10 months before Hurricane Katrina occurred; $300 million in "blight bonds," which would use city-owned blighted property as collateral; $117 million in Community Development Block Grant funds; $324 million from monies that the state of Louisiana put aside to cover the local match on Federal Emergency Management Agency (FEMA)-financed projects; and $57.4 million from FEMA hazard mitigation money.

1977b, discussed in Olshansky, n.d.). The time immediately following the disaster is also the window of opportunity that cities have to initiate any significant changes (Johnson, 1999, discussed in Olshansky, n.d.). In New Orleans, the city gave precedence to the residents' desire to return to their homes over policies that would reduce risk from natural hazards. Acting on the advice of outside and local professionals, the mayor initially supported citywide solutions to rebuild a safer New Orleans. A key misstep of the mayor and the BNOB Commission was not anticipating the level of skepticism and hostility to rebuilding proposals and underestimating the commitment residents had to rebuilding their neighborhoods. The BNOB Commission members also failed to acknowledge that residents had a plan in mind—the same city, only better (Haas, Kates, and Bowden, 1977a)—and had not had sufficient time to come to terms with their loss and contemplate a new landscape. Facing fierce public opposition to the BNOB proposals, the mayor, in the midst of a reelection run, distanced himself from his commission's recommendations in favor of a "free market" approach that enabled residents to rebuild anywhere.[6] Strategies for reducing and managing risk from future flood events fell away from the discussion about how the city should rebuild.

In dropping the risk factor from the rebuilding discussion in the first few months after the flooding occurred instead of attempting to mediate between conflicting priorities, local leaders missed an opportunity to empower residents to address risk. Fearing another policy reversal on the city's part and the release of FEMA flood maps that would require home elevation and thus make redevelopment in the most heavily flooded areas more costly, thousands of residents rushed city hall in the first months of 2006 to obtain building permits before the maps were released. The city encouraged homeowners in the hardest hit areas to have their official damage assessments reduced to less than 50-percent damaged to enable them to rebuild their homes without having to elevate them (Meitrodt, 2006). Although the city's hands-off position toward rebuilding in flooded areas satisfied residents' desire to return to their homes quickly and at the lowest cost, it did so at the expense of measures that could reduce risk and limit future losses. The fear and anger caused by initial announcements of a building moratorium and a smaller city footprint intensified the speed and determination with which residents sought to return to their homes despite the risks associated with rebuilding.

The decision to develop community-generated solutions directed the subsequent NONRP planning process, and the city council explicitly prioritized every neighborhood's return. It turned to professional planners to guide the process and offer technical assistance, and NONRP planners offered policies to address the most pressing concerns that arose in the neighborhood meetings. The priority concerns that the professionals addressed shifted from citywide risk reduction, the prioritization of limited recovery resources, and the efficient delivery of services in the BNOB plan to housing and neighborhood recovery. Although the UNOP citywide plan brought risk reduction back into the rebuilding discussion, in the absence of the political will to implement and enforce government mandates to ensure a "safer, stronger, and smarter" New Orleans, UNOP planners proposed a number of voluntary programs to increase resident safety. The impact of these programs, which have yet to be fleshed out and funded, is questionable, particularly in light of the fact that they have come too late for residents who have already returned and rebuilt their homes.

[6] The uncertainty that has permeated rebuilding efforts has prevented markets from operating efficiently.

Understanding Risk

The challenges that local officials and planners in New Orleans face highlight the conundrum that the appropriate actions to take in recovering from disaster are highly contested and not always clear. Disagreements between experts and residents on how to rebuild have led to inconsistent policy prescriptions, prolonged the planning processes, and enabled unsafe redevelopment. These disagreements may reflect a lack of residents' understanding of or concern about hazards, differences in how individuals and groups perceive risk and make decisions, and/or distrust of government officials and experts (Fischhoff, 2006; Laska and Morrow, 2006; Pelling, 2003). They also likely reflect the differential ability to pay for steps needed to reduce personal risk.

Local government inaction often is reinforced by lack of citizen concern about hazards (Burby, 2006; May, 1991). Failure to understand risk can result in the absence of residents' support for government standards to reduce risk or can cause noncompliance with such regulations (Laska and Morrow, 2006). Despite residents' resistance to early recommendations that would limit the city's vulnerability to future flood events, evidence indicates that concerns about future flooding and hazard mitigation are foremost on the minds of New Orleans' residents. In a survey of two planning districts hit hard by Hurricane Katrina, residents ranked concerns about the levees and future flooding among the top concerns influencing their decisions about whether to return to or stay in New Orleans (Laska, Gremillion, and Nelson, 2007; Laska et al., 2006). In March 2007, nearly all (93 percent) respondents polled by Louisiana Speaks stated that funding and implementing the coastal recovery plan was important; 80 percent of respondents found it very important. These results were consistent between African-American and White respondents (Louisiana Speaks, 2007). During Community Congress II, one of the large-scale community meetings that was part of the UNOP process, more than 2,500 residents of New Orleans weighed in on rebuilding issues, including hazard mitigation. When asked what should be done to reduce flood risk, 71 percent of participants expressed a high level or very high level of support for the creation and enforcement of mitigation standards (America*Speaks*, 2006).[7]

The apparent contradiction between residents' desire to return to their neighborhoods regardless of the environmental and economic risks of rebuilding and their concern for reducing their flood vulnerability reflects the fact that decisionmaking in postdisaster environments occurs in conditions of information scarcity and uncertainty and tremendous complexity. As a result, Pelling (2003: 70) notes, "decisions therefore take place within the context of bounded rationality. In this way, individuals who may otherwise have been perceived as acting irrationally in failing to reduce environmental risk in living environments can now be seen to have acted rationally in uncertain and possibly hostile informational and political environments, and to have been risk-averse in a world of multiple-layered risks." To residents faced with rebuilding their lives and communities, protection from future hurricanes and flood events is one of many concerns. Equally as worrisome

[7] Hazard mitigation happens at multiple scales, including individual, neighborhood, citywide, and regional levels. Support for citywide or regional efforts, such as building safer levees or investing in coastal restoration, does not necessarily mean support for local standards. Likewise, the enforcement of local standards does not ensure that the city of New Orleans will be safe from future flooding. New Orleans will not be safe without regional protection, and regional measures have gained almost unanimous support. Resident support for citywide or regional measures is likely due to the fact that residents have little direct responsibility for them.

is the loss of social ties and support systems, livelihoods, local culture, and the ability to make their own decisions about how and where to rebuild. Moreover, in the absence of any mechanisms that would enable residents of the most flood-prone parts of the city to move to safer areas, residents returning to New Orleans have been left with no other viable alternative than to rebuild in place.

Distrust

Residents' fundamental distrust of government and experts also blocked local government officials from addressing risk. The response to the BNOB process and recommendations highlights the initial distrust many residents felt for both local and national professionals and the government.[8] Although residents responded to specific proposals, the very fact that the initial response was resistance indicates that, instead of assuming governmental agencies and their representatives were looking out for city residents, many felt they had to protect themselves *from* the planners and decisionmakers.

The distrust of government officials and expert opinions was deeper than skepticism about the BNOB proposals and must be considered within the context of a history of discrimination and mistreatment. Development patterns that place some people at more risk than others reflect social disparities associated with race and income (Hurley, 1995; Laska and Morrow, 2006). The uneven distribution of environmental hazards has been well documented (Bullard, 1994, 1990; Hurley, 1995; Pastor, Sadd, and Hipp, 2001; United Church of Christ, 1987), and efforts to draw attention to and end these patterns have been termed "environmental justice."

Many residents, particularly African Americans, believed that their concerns and neighborhoods were neglected before the storm occurred. New Orleans East and the Lower 9th Ward, the two flooded areas that had weaker levee protection, are predominantly African American. Many residents of these areas articulated this injustice and suggested that their need for flood protection had gone unattended before Hurricane Katrina occurred.

Federal redevelopment policies such as urban renewal and highway development have repeatedly hurt African-American and low-income neighborhoods and residents nationwide, and New Orleans has been no exception. In the 1960s, when Interstate 10 was constructed along Claiborne Avenue, it cut through an African-American neighborhood and destroyed a vital retail corridor, and the recent HOPE VI redevelopment of the St. Thomas public housing development (now called River Garden) resulted in a net loss of affordable units to townhouses constructed for middle-income residents (Bagert, 2002).

In addition, in New Orleans, residents have not forgotten the 1927 Mississippi River flood. Other cities' attempts to raise their levees benefited White residents at the expense of African-American residents. In Greenville, Mississippi, for example, the police department forced African-American men into service shoring up the levees; if someone refused, he was beaten, jailed, or, on occasion, killed (Barry, 1997). On April 29, 1927, New Orleans officials dynamited a stretch of levee south of the city to protect New Orleans at the expense of the residents in downriver parishes. The decision

[8] Residents distrusted all levels of government and governmental agencies, but we discuss those aspects that had the greatest effect on the planning processes.

to flood downriver parishes was particularly heinous given that victims were promised compensation that they never received and officials had the option of dynamiting an upriver stretch of the levee that would not have affected any residents. The officials, however, wanted to inspire confidence that New Orleans was ready for business and, for that purpose, the upriver cut would have not have given the same sense that New Orleans was safe from disaster (Barry, 1997; Kelman, 2003; Powers, 2006).

In the context of these historical precedents—systematic federal policy failures, the experience of African Americans during the 1927 flood, and the city's proven willingness to breach the levees to protect one part of the region at the expense of another—many residents in New Orleans believe, or at least find it probable, that the breaches along the New Orleans Industrial Canal that flooded the Lower 9th Ward when Hurricane Katrina struck were intentional. Although this belief might appear irrational to outsiders and government officials, it highlights a powerful distrust regarding government protection of African Americans' interests.

Poor response to a disaster can further weaken belief in government (Ganapati, 2006). In New Orleans, the levee failures and the disastrous response to Hurricane Katrina reinforced residents' distrust of the federal government. Distrust permeated the planning processes because many people had no confidence that the proposals were in their best interest. When Mayor Nagin appointed the BNOB Commission, he failed to recognize that many visible BNOB Land Use Committee members would fuel suspicion because it was precisely developers such as Land Use Committee co-chair Joseph Canizaro who might benefit at the expense of ordinary residents.

Many African Americans viewed BNOB proposals as a means to keep them from returning to the city. This fear has been particularly acute (and hardly unreasonable) in light of the lack of viable policies or programs proposed by planners or local officials to help residents in the most flood-prone areas consider means of successfully returning and rebuilding safely. Instead of developing such programs, city officials responded to pressure from residents in unflooded areas who resisted temporary housing and increased density. In the fall of 2005, as the mayor's office and FEMA staff developed a list of trailer sites, they were met with resistance, and areas that exhibited more propensity toward collective action (as measured by voting rates before Hurricane Katrina occurred) were more successful in preventing trailer parks from being placed in their neighborhoods (Aldrich and Crook, 2006). When UNOP planners raised the possibility of proposing infill housing in unflooded neighborhoods in District 3, a planning district with significant income disparities, the response from residents in the district's wealthier, unflooded neighborhoods was negative, according to opinions expressed at the October 11, 2006, UNOP informational meeting for District 3.

Even when residents and experts agreed on the facts—which areas were less safe, who was disproportionately affected, who would be in danger—these factors alone did not result in fair policies that ensured that residents could return. The concern that some people will comparatively lose out is supported by research on previous disasters. Not all groups recover at the same rates, and those with more resources rebuild sooner and better (Haas, Kates, and Bowden, 1977b; Olshansky, n.d.). Following Hurricane Andrew in South Florida, recovery assistance was not distributed evenly, even among those with similar needs (Peacock, Morrow, and Gladwin, 1997), and after the 1994 Northridge earthquake in Los Angeles, areas with higher numbers of socially disadvantaged residents received less federal residential assistance than other affected areas (Kamel and Loukaitou-Sideris, 2004).

Despite the degree to which residents were wary of governmental actions, UNOP, a foundation-funded process operating outside of government, invoked equal or more suspicion. Although UNOP proponents hailed the effort as a resident-driven process, many New Orleans residents perceived the effort as one that would benefit White, wealthy residents; divert scarce rebuilding resources from flooded to unflooded neighborhoods; circumvent the city council planning process and independent, grassroots planning efforts; and create a public process to justify the BNOB Commission's earlier findings.[9] Furthermore, although the concept of clustering introduced in the UNOP citywide plan offers a middle-ground alternative between unplanned rebuilding throughout the city and proposals that prohibit rebuilding in the most flood-prone sections, some residents have suggested that clustering is just another attempt to deny them the right to return to their neighborhoods (Green, 2007).

The scientific rationale behind the planning proposals—assessments of storm patterns, safety in elevation, growing coastal erosion and the need to stem it, limited safety from levees, and the fear of increased frequency and intensity of storms due to changing weather patterns and global warming—did not engender the support that many professionals expected. Accompanying the distrust of government was skepticism toward scientific and technological knowledge and professional expertise (Fischer, 2000).

Despite the political and social context in which communities and city officials make planning decisions, many professionals continued to present—and even believe in—scientific and technological information as the sole determinant of future action instead of using it as a basis for deliberating over potential responses (Klosterman, in press). In New Orleans, the planners initially presented the citywide risk reduction proposals as a rational path to recovery instead of outlining the trade-offs present among various approaches. In many circumstances nationwide, community groups have developed enough knowledge about hazards to challenge industry experts with opposing interpretations, further undermining expert claims about scientific objectivity (Fischer, 2000).

Although New Orleans residents were quick to pick up the facts from the experts, they worked toward different outcomes. As planners proposed restricting the redevelopment of predominantly African-American parts of the city on the grounds that they were too unsafe to rebuild, many residents of those neighborhoods viewed such proposals as a means to keep them from returning to the city and the language of risk as something that could be used against them. In some instances, residents of neighborhoods hit hard by Hurricane Katrina attempted to shift the focus away from the relative risks associated with particular neighborhoods and adopted a "we're all at risk" rhetoric that instead emphasized the risks the entire city faced.

Information Scarcity

Distrust was exacerbated by the lack of information about the city's recovery strategy and how much power would be vested in the plans created. Overwhelmed with the sheer scale of Hurricane Katrina's devastation and with being severely understaffed, city agencies too often failed to convey the basic information residents needed. For residents returning to New Orleans, the most impor-

[9] Although the mayor and city council have accepted the UNOP plans, from their initial perspective, UNOP represented interference from the state and an unnecessary duplication of ongoing planning efforts (Williamson, 2007).

tant first steps in rebuilding their lives were not immediately obvious. Some people, especially those with personal financial resources, immediately began rebuilding their houses, while others waited—for guidance from the city, for the revised FEMA flood elevation maps, to see if their neighbors would return, for insurance money, and, later, for Road Home checks. Residents' lives were in disarray because of the flood, evacuation, and temporary living quarters. In addition, they were returning to a city where information was hard to come by.

When residents began to return in the fall of 2005 and the winter of 2006, they needed information about how to get services, whether their neighborhoods were safe to occupy, if they would have police and fire protection, and what the city's plans were. If their homes had been damaged, they needed to understand the damage assessment and decide whether their homes should be demolished. If they decided to rebuild, they needed to understand available mitigation options. Compounding these various issues, they were absorbing all this information while in a true clinical state of shock, which is typical in postdisaster environments (Olshansky, n.d.).

Although decisions were being made, residents were unclear about who the decisionmakers were. In addition, with the absence of adequate communication, many residents were unconvinced that the decisionmakers' priorities supported their own. Local officials did not have all the answers residents needed. City agencies did not know, for example, when a given street would be fixed or when the revised FEMA flood maps would be released. An understanding of what was known and what was yet to be determined was nevertheless important for residents. In addition to furthering the disbelief that the city was functioning effectively, the ongoing confusion advanced the sense that if anything was going to be accomplished, residents had to do it themselves. At times, engaged residents felt as if they were working against the city. The most visible officials—the city council members—bore the brunt of all rebuilding questions from their constituents, which taxed their busy offices and supported the perception that answers were hard to come by. Now, 2 years after the storm, this condition still fundamentally exists.

Section 4. Post-Hurricane Katrina Engagement: What Neighborhood Activism Can Accomplish

The unprecedented engagement in planning efforts by New Orleans residents has greatly influenced the direction of rebuilding. Fearing they would be prohibited from rebuilding, residents immediately resisted the BNOB Land Use Committee proposals and began proving the viability of their neighborhoods. New organizations sprang up overnight, and established organizations turned their attention to recovery, including searching for their neighbors to determine who would return and evaluating the conditions on every neighborhood block.[10] Soon, however, the residents' discussion shifted from proving neighborhood viability to taking charge of the recovery because they felt less confident that the leadership was in fact leading. News and media stories frequently report ways in which residents continue to perform functions that, before Hurricane Katrina, the city would have done. Examples abound: picking up debris, gardening median strips, getting construction companies to fill potholes, posting makeshift street name signs, and trimming trees on public land.

[10] New Orleans had an active base of neighborhood organizations before Hurricane Katrina. The storm provided a sense of urgency and helped reinvigorate many established organizations.

Neighborhood organizations across the city also began to plan their neighborhoods' recovery. According to the CityWorks Directory of Neighborhood Organizations for Orleans Parish, more than 200 neighborhood-based groups are located throughout the city (CityWorks, 2007). Numerous umbrella organizations have also been established. The Gentilly Civic Improvement Association's board, for instance, is composed of leaders from most of the 23 neighborhood organizations in Planning District 6. Other organizations, such as the Neighborhoods Partnership Network and the Planning Districts Leadership Coalition, act as networks and coalitions with differing degrees of formal structure.

Post-Hurricane Katrina activism was to be expected. Evidence from other cities recovering from disasters suggests that disasters spur activism. Ganapati (2006) found that new social networks developed among affected people after the 1999 earthquake in Golcuk, Turkey, and argues that after such a significant event, people who were affected might increasingly want to determine their fate. The 1985 Mexico City earthquake damaged downtown neighborhoods that housed, employed, and provided basic services for hundreds of thousands of residents. After the earthquake occurred, residents organized to challenge and redirect the city's response priorities (Davis, 2005). In Homer, Alaska, after the 1989 Exxon Valdez oil spill, emergent groups immediately formed to protect fisheries, while others later took on diverse projects such as rehabilitating otters, cleaning beaches, and establishing cleanup priorities (Button, 1993). In all three places, residents responded to immediate needs that the government did not satisfactorily address. New social networks were also necessary for residents as they faced losses, decided how to rebuild their lives and their cities, and procured resources and other assistance.

The evacuation from New Orleans disrupted existing social networks, and new organizations needed to be formed. Long-lasting social and familial networks had been fundamental to residents' attachment to the city and the neighborhoods where they lived. Nonetheless, these social networks did not always translate into structural change in the sense that, despite these connections and a strong faith-based nonprofit sector, significant portions of the pre-Hurricane Katrina population had low incomes, attended inadequate schools, and had few employment opportunities. Ganapati (2006) differentiates between the cognitive components of social capital—trust and reciprocity that create supportive networks—and the structural components—civic networks that achieve structural changes through collective action. In New Orleans, there is a strong consensus that the cognitive elements of social capital before Hurricane Katrina were very strong; however, the structural components may not have been as strong, or at least sufficient, to overcome the economic, social, and political challenges. In this new environment, the focus was on creating organizations to facilitate structural change and, as a result, successful rebuilding.

Engagement took different forms. New community organizing institutions such as the People's Hurricane Relief Fund and Oversight Coalition and Common Ground Collective joined established community organizers such as the Association of Community Organizations for Reform Now. Community organizing institutions differ from other neighborhood- and community-based organizations in their approach. Although many neighborhood organizations focus on specific issues and work within the existing political structure, community organizing institutions also attempt to change the social and political structure that produces inequity (ACORN, n.d.; Common Ground, n.d.; People's Hurricane Relief Fund, n.d.). These distinctions can become blurred in practice

(Saegart, 2006); thus, these organizations focused on both meeting immediate needs, such as gutting houses, cleaning streets, and providing information, and attending to more structural questions of justice, including advocating for the right to return, opposing demolition in low-income neighborhoods, and focusing on the fact that low-income African-American neighborhoods had been hard hit and their residents faced structural obstacles to return. ACORN also initially participated as a planning team in the UNOP process but ultimately carried out an independent planning effort that resulted in the People's Plan that included the 9th Ward (ACORN, 2007).

Neighborhood residents met to share information and determine whether others intended to rebuild; many residents also wanted to develop organizations with formal structures and build their capacity to undertake specific recovery and redevelopment projects. Numerous neighborhood organizations established community development corporations (CDCs) to address redevelopment in their neighborhoods. The Mary Queen of Vietnam Church in New Orleans East established a CDC in June 2006. In the past year, according to information reported at the City Council Recovery Committee Meeting on May 30, 2007, the CDC has distributed $21 million to small businesses, organized to close a landfill near the community, and is working to develop senior housing. The Hollygrove and Broadmoor neighborhoods also have active CDCs. The Lower 9th Ward organization Neighborhood Empowerment Network Association (NENA) applied for and received funding to open a community center and hire staff to help residents work with contractors, negotiate The Road Home Program, and provide other services that returning residents needed.

Community groups have targeted local rebuilding issues and simultaneously taken on citywide or regional problems, including affordable housing, wetland restoration, landfill and storm debris management, historic preservation, levee integrity, and future storm protection. Because much work will be initiated and funded by the federal and Louisiana state governments, groups have advocated for programs and funding and, in the process, have highlighted their priorities, raised awareness of these challenges, and acted as watchdog organizations. As noted earlier, this important grassroots work throughout the city, nevertheless, does not offer a framework for making difficult decisions about how to prioritize limited redevelopment resources. These issues are particularly contentious given that some neighborhoods stand to benefit more from the city's investment decisions, or at least benefit sooner, than others do.

Policymakers and residents also have collaborated to modify mitigation policies. Broadmoor, one of the neighborhoods lowest in elevation, was "green dotted" by the BNOB process. As a result of local activism, Broadmoor residents have pushed FEMA to consider the idea of "buying out" basements; residents can currently use National Flood Insurance Program Increased Cost of Compliance funds to remove all items from their basements if their homes' main floors are above the FEMA Advisory Base Flood Elevation levels. Broadmoor residents are trying to get FEMA to buy out a portion of their mortgages if residents are unable to use their basements. Although mortgage buyout might not happen, it exemplifies the type of solution that a dialogue between residents and professionals can develop. During the planning process, city officials avoided such dialogue, did not encourage or reward mitigation efforts, and lost an opportunity to work with the residents to develop risk reduction strategies.

After a disaster occurs, community involvement should be anticipated because people must rebuild their lives. Demand for participatory democracy emerged in the 1960s and 1970s, when people

nationwide demanded more influence over policies and programs that did not always work in their best interests. Innovations in participatory urban governance have been a quiet revolution in U.S. cities (Sirianni and Friedland, 2001), and New Orleans has many models from which to draw to establish long-lasting networks. Although it is too early to assess the long-term changes associated with post-Hurricane Katrina activism in New Orleans, demand for government access by residents and assurances by the city council provide hope or awareness that open discussion has indeed become an expected priority. In the words of one resident, spoken at the June 13, 2007, City Council Recovery Committee Meeting, "the growing passion we have in this city for participation will accept no less."

Section 5. Conclusion: Lessons From New Orleans

The recovery planning processes in New Orleans highlight important planning lessons that will enable other communities to contemplate the recovery-strategy tensions that inevitably arise in the wake of disasters and to consider the key needs that must be addressed. An understanding of these tensions and needs may help communities alleviate or avoid some of the oversight and missteps that have impeded postdisaster recovery in New Orleans.

Anticipate the Tension of Timing in the Pace of Recovery Planning

The tension between the conflicting needs for speed and deliberation in recovery planning has surfaced in both the development of policies to ensure a safe recovery and the planning processes to create a citywide recovery framework. Although the tension of timing is to be expected in a postdisaster environment (Kates et al., 2006; Olshansky, 2006), it was exacerbated by local government missteps.

In the "rush to rebuild the familiar," (Kates, et al., 2006: 14,656) residents rejected the proposed building moratorium that could have provided sufficient time to engage residents, planners, and officials in a dialogue about the difficult tradeoffs the city faced and could have facilitated the development of policies or guidelines that would have helped residents rebuild their homes and communities more safely. Local government should have anticipated residents' negative reaction and responded to their concerns in a way that would have encouraged conversations about the most contentious issues. Instead, the mayor, seemingly caught off guard by residents' response, distanced himself from BNOB recommendations and skirted those important discussions altogether.

A deliberative, participatory recovery planning process was necessary to ensure that residents would help guide the rebuilding of New Orleans and to foster support for associated policies. A participatory process could also help incorporate residents' and other stakeholders' different knowledge bases and priorities in recovery policies. Although thousands of residents took part in the various processes, many became tired of the endless stream of planning meetings. For some residents and leaders, planning was seen as a roadblock to recovery. Planning fatigue and residents' demand for implementation illustrate important weaknesses of participatory planning: participatory planning is slow, and it can be difficult to sustain energy and confidence during the process.

Such weaknesses are heightened in a postdisaster setting, considering the fragile emotional state of many residents and the numerous demands on their time. The time required for any delibera-

tive process can be taxing. In New Orleans, this fatigue was aggravated by multiple, competing planning processes that heightened the confusion and anxiety common in postdisaster recovery and cast doubt that planning would actually accomplish anything. An organized process would at least convey that the meetings were accomplishing concrete objectives and, even if the amount of time spent on planning seemed endless compared with the need for quick recovery, the time spent would feel purposeful.

Develop a Plan To Plan

Having a "plan to plan" in the aftermath of a disaster can increase the speed and transparency of postdisaster decisionmaking. Such a plan would outline what work needed to be accomplished, how it would be accomplished, and who would accomplish it. Because recovery planning involves stakeholders with competing priorities, it is particularly important to designate an agency or authority to guide and oversee a process with well-defined ground rules and an explicit intent to integrate divergent interests into a coherent and fair recovery blueprint. Designating a single authority to oversee recovery planning and subsequent implementation efforts would also eliminate duplicative efforts by rival agencies or authorities.

The absence of a single authority or agency to oversee post-Hurricane Katrina planning fundamentally compounded the confusion about recovery and rebuilding in New Orleans. The City Planning Commission, the city-chartered body responsible for planning, was largely overlooked by the multiple processes. The CPC, however, was granted the authority to review and recommend the recovery plans and, therefore, would have been an appropriate agency to oversee a comprehensive recovery planning process from the start. A single agency could have streamlined the process and eliminated duplication of efforts, thus saving valuable time, resources, and residents' energies and, potentially, could have quelled tensions between the mayor and the city council and between city and state officials. The designated agency, however, would have to have the capacity to do the work and, depending on the size of the agency before the disaster and the scale of the disaster, this capacity might require augmenting. In New Orleans, the CPC's capacity was decimated. Already understaffed before Hurricane Katrina occurred, the CPC lost two-thirds of its staff in the drastic city employee layoffs that occurred immediately after the storm made landfall (Eggler, 2005). These poststorm cuts reflect a lack of recognition by city officials that such systematic planning was important for the city's successful recovery.

Anticipate Residents' Distrust of Government and Professionals

In New Orleans, a second type of conflict resulted from the differences in how residents and professionals perceive the risks associated with rebuilding and many residents' deep distrust of government and professionals. The residents' fierce resistance to original proposals to rebuild New Orleans safer and smarter, while seemingly irrational to some observers, was not irrational at all. Residents were considering the multiple threats they were facing—the loss of control over where they could live, the loss of tightly knit neighborhoods of extended families and friends, and the fear that political decisions would serve developers before residents and wealthy residents before low-income residents. Safety from future flooding and access to services were only two of their many serious concerns.

Differences in how residents and professionals perceive risk also reflect the great distrust many residents have of government officials, professionals, and subject matter experts. In New Orleans, planners proposed restricting the redevelopment of predominantly African-American parts of the city on grounds that they were too unsafe to rebuild; however, because they offered no viable ways for residents to return to New Orleans, reducing risk would have eliminated African-American neighborhoods. As a result, some residents viewed discussions of risk as a means of exclusion and "shrinking the footprint" as a euphemism for efforts to make New Orleans a more White, more affluent city or as a means for "ethnic cleansing."

Planners and public officials need to anticipate and expect distrust. They need to acknowledge that vulnerabilities to hazards and disasters are products of the social, political, and economic systems (Blaikie et al., 1994), and they must understand the implications of the policies and programs they propose. Gilbert F. White, considered the "father of flood-plain management," wrote in 1942, "Floods are 'acts of God,' but flood losses are largely acts of man" (Bourne, 2007).

Planners must also recognize that existing divisions within a city will also be exacerbated in the stressful postdisaster circumstances. Although public officials or a designated agency must develop a deliberative, participatory planning process to build trust in the process' outcomes and ensure that the plans will, in fact, reflect the interests of multiple stakeholders, these goals are difficult to accomplish because of the significant time pressures and intensification of existing differences. At times, outside experts might be able to facilitate collaboration because they have less invested in specific outcomes. Outside participation does not guarantee neutrality, however, and outside professionals must build relationships and trust and must understand the basis for existing divisions if they intend to bridge them.

Anticipate Engaged Residents

Activism among residents should be anticipated and supported. Activism and the deep commitment to the city it represents are key elements of resiliency. Planning processes need community members to help set priorities and devise projects. To the extent that the planning processes can facilitate building skills and capacity to further neighborhood recovery, they will help with long-term rebuilding and ensure that residents throughout the city develop technical expertise. To build confidence instead of cynicism, however, the participation must result in measurable, visible outcomes benefited by the residents' participation.

In New Orleans, many people hope grassroots energies will grow, the city will develop mechanisms to support and incorporate resident participation, and neighborhood organizations will continue to build their capacity to undertake recovery and redevelopment projects at the neighborhood level and more effectively inform citywide rebuilding policy. The Office of Recovery Management has been tasked with developing such a strategy, and the proposals thus far have indicated that the ORM is mindful of residents' concerns and realistic about the priorities that must be set.

Residents alone cannot do everything, however. Although community energy and efforts and local knowledge can and should shape and direct citywide policy, neighborhood efforts cannot substitute for finalizing that policy. Citywide disasters necessitate hard decisions that will be unpopular with some segments of the population. When such decisions have been identified—for example,

where to direct scarce resources or where to place temporary housing—the process by which those decisions are being made should be transparent and decisions should be made at the city level. To the extent that engagement can be participatory, it should be, but engagement itself cannot replace the fulfillment of substantive objectives, and decisionmaking must continue in the face of opposition. Trust among people and entities is one of the most important factors in communities' resiliency. If a government is to gain and maintain its citizens' trust, it also must act effectively and, in the process, sometimes make difficult and unpopular decisions.

The decisions a city must make after a disaster occurs are complex, and professional expertise will be necessary. Because nonprofessionals will be active, professional experts should contribute their knowledge and technical assistance to ensure that residents not only have the information they seek but also have access to the knowledge they need for making difficult decisions. Outside professionals must participate in the process with a willingness to work with local residents and professionals. Instead of solely offering expertise or assuming that their professional assessments are correct, professionals should acknowledge that few straightforward solutions exist for rebuilding priorities in complex social and political environments. They must engage as knowledgeable participants but be able and willing to adapt their expertise to local circumstances (including cultural and political contexts). They must also recognize what they do not know while contributing what they do know.

Understand What Planning Can and Cannot Do

The New Orleans planning processes have been both important and frustrating for city residents, as is typical in postdisaster circumstances. Despite those challenges, residents participate because their recovery depends on it. Although some degree of frustration must be anticipated, allowing planning to perform many functions can ensure that everyone's time is at least well spent.

Plans were needed to convey to investors, the federal government, and philanthropic organizations that the city had a recovery strategy and to lay out what that strategy was. Both objectives had to be clear to participants, including what specific outcomes could and could not be expected. Although plans are never final or absolutely determinative, they are influential. For example, the target areas that the ORM decided on were identified in the New Orleans Neighborhoods Rebuilding Plan and UNOP processes, and the specific proposals in the plans will guide future development.

Planning can do so much more. Plans are limited and, at best, act as guides for future development. The relationships and visions spawned from planning, however, can inspire and sustain residents throughout a long rebuilding process and help direct efforts to fulfill shared goals. The planning process can and should build relationships and create collaborations among a wide array of stakeholders. In addition, in postdisaster circumstances, if necessary, the process can also be used to disseminate basic information and ensure that all residents have access to accurate information from the city and other involved entities.

Although no planning process can make amends for past injustices or benefit everyone equally, building trust in the city and recovery efforts is something that it can begin to do. To build trust, the process and policies must be fair. Ultimately, some people will comparatively lose out and will be individually dissatisfied—and, although cities will recover, not all individuals in those cities will fare well (Olshansky, n.d.). A worthwhile objective would be to design policies that would neither

be perceived as or have the effect of sacrificing any group's safety or inclusion under the guise of betterment for the city as a whole.

Recovery after a large disaster will be slow, but the passion that people have for their cities ensures that, even facing an arduous path, residents will return and rebuild. Unprecedented resident activism demonstrates both residents' capacity to grow under adverse conditions and the strong attachment residents have to New Orleans. Both are indicators of resilience and ensure that New Orleans will recover. New Orleans residents can never lose sight of the goal: to not only recover but to rebuild better and create a city where all residents, including those with the least resources, have an opportunity to safely return and thrive.

Acknowledgments

The authors thank James Amdal, Paul Lambert, Jeffrey Lowe, Michael Manville, Robert Olshansky, and Daphne Spain for their invaluable comments on an earlier draft of this article. They are especially grateful for Paul Lambert's insight into the processes' differing approaches and Robert Olshansky's insight regarding the importance of a plan's communicative role.

Authors

Marla Nelson is an assistant professor of planning and urban studies at The University of New Orleans.

Renia Ehrenfeucht is an assistant professor of planning and urban studies at The University of New Orleans.

Shirley Laska is professor of sociology at The University of New Orleans.

References

ACORN. 2007. The People's Plan for Overcoming the Hurricane Katrina Blues: A Comprehensive Strategy for Building a More Vibrant, Sustainable, and Equitable 9th Ward. http://www.neworleans.ACORN.org (accessed June 14, 2007).

———. n.d. http://www.neworleans.ACORN.org (accessed June 14, 2007).

Aldrich, Daniel P., and Kevin Crook. 2006. "Strong Civil Society as a Double Edge Sword: Siting Trailers in Post-Katrina New Orleans," Weatherhead Center for International Affairs (Working Paper No. 06-11). Cambridge, MA: Harvard University.

America*Speaks*. 2006. Preliminary Report: Community Congress II, December 2, 2006. http://www.americaspeaks.org/projects/portfolio/current/unop/index.htm (accessed May 12, 2007).

Bagert, Brod, Jr. 2002. Hope VI and St. Thomas: Smoke, Mirrors and Urban Mercantilism. Working paper. London, UK: London School of Economics.

Barry, John M. 1997. *Rising Tide: The Great Mississippi Flood of 1927 and How It Changed America.* New York: Simon & Schuster.

Beierle, Thomas C., and Jerry Cayford. 2002. *Democracy in Practice: Public Participation in Environmental Decisions.* Washington, DC: Resources for the Future.

Blaikie, Piers, Terry Cannon, Ian Davis, and Ben Wisner. 1994. *At Risk: Natural Hazards, People's Vulnerability, and Disasters.* New York: Routledge.

Bourbon, Julie. 2007. "Recovery Czar Rolls through the Wreckage," *The Times-Picayune,* February 11, B1.

Bourne, Joel K., Jr. 2007. "New Orleans: A Perilous Future," *National Geographic,* August 1. (Also available at http://www.nationalgeographic.com/ngm/0708/feature1/.)

Bullard, Robert D. 1994. *Unequal Protection: Environmental Justice and Communities of Color.* San Francisco: Sierra Club Books.

———. 1990. *Dumping in Dixie: Race, Class, and Environmental Quality.* Boulder: Westview Press.

Burby, Raymond J. 2006. "Hurricane Katrina and the Paradoxes of Government Disaster Policy: Bringing About Wise Governmental Decisions for Hazardous Areas," *Annals of the American Academy of Political and Social Science* 604: 171–191.

Bureau of Government Research. 2007a (May). *UNOP Revisited: An Analysis of the Revised Citywide Plan.* New Orleans: Bureau of Government Research.

———. 2007b (March). *Not Ready for Prime Time: An Analysis of the UNOP Citywide Plan.* New Orleans: Bureau of Government Research.

Burns, Peter, and Matthew O. Thomas. 2006. "The Failure of the Nonregime: How Katrina Exposed New Orleans as a Regimeless City," *Urban Affairs Review* 41 (4): 517–527.

Button, Gregory Vedder. 1993. "Social Conflict and the Formation of Emergent Groups in a Technological Disaster: The Exxon Valdez Oil Spill and the Response of Residents in the Area of Homer, Alaska." Ph.D. diss. (unpublished), Department of Anthropology, Brandeis University.

CityWorks. 2007. Directory of Neighborhood Organizations for Orleans Parish. Updated April 8, 2007. http://www.city-works.org (accessed June 13, 2007).

Common Ground. n.d. http://www.commongroundrelief.org (accessed June 14, 2007).

Davis, Diane. 2005. "Reverberations: Mexico City's 1985 Earthquake and the Transformations of the Capital." In *The Resilient City: How Modern Cities Recover From Disaster,* edited by Lawrence J. Vale and Thomas J. Campanella. New York: Oxford University Press.

Donze, Frank. 2007. "Grants To Boost Recovery Agency," *The Times-Picayune,* April 25, B1.

Donze, Frank, and Gordon Russell. 2006. "Four Months to Decide," *The Times-Picayune*, January 11, A1.

Eggler, Bruce. 2007. "Mail Delivery Stats Track City's Growth," *The Times-Picayune,* July 26, B1.

———. 2005. "City Planners Want Role in Rebuilding; Some Felt Bypassed by Mayor's Panel," *The Times-Picayune,* October 29, B3.

Fischer, Frank. 2000. *Citizens, Experts, and the Environment: The Politics of Local Knowledge*. Durham, NC: Duke University Press.

Fischhoff, Baruch. 2006. "Behaviorally Realistic Risk Management." In *On Risk and Disaster: Lessons from Hurricane Katrina,* edited by Ronald J. Daniels, Donald F. Kettl, and Howard Kunreuther. Philadelphia: University of Pennsylvania Press.

Ganapati, N. Emel. 2006. "The Resilient 'Victims': Rise of Social Capital in the Rubble." Paper presented at the Associated Collegiate Schools of Planning conference, Dallas, TX, November 9–12.

Grace, Stephanie. 2007. "Will Plan Lift the Curse of Green Dot?" *The Times-Picayune,* April 1, B7.

Green, Rebekah. 2007. "Prospects for Post-Katrina New Orleans." Paper presented at the 37th Annual Meeting of the Urban Affairs Association, Seattle, WA, April 26.

Haas, J. Eugene, Robert W. Kates, and Martyn J. Bowden, eds. 1977a. "Preface." In *Reconstruction Following Disaster*. Cambridge, MA: MIT Press: xv-xxiv.

Haas, J. Eugene, Robert W. Kates, and Martyn J. Bowden, eds. 1977b. *Reconstruction Following Disaster.* Cambridge, MA: MIT Press.

Hammer, David, and Frank Donze. 2007. "Recovery Czar Throws Down the Gauntlet before LRA," *The Times-Picayune,* February 13, A1.

Hartman, Chester W., and Gregory D. Squires. 2006. *There Is No Such Thing as a Natural Disaster: Race, Class, and Hurricane Katrina.* New York: Routledge.

Helling, Amy. 1998. "Collaborative Visioning: Proceed with Caution!" *Journal of the American Planning Association* 64 (3): 335–349.

Howell, Susan. 2007 (May). "Keeping People: The 2007 Quality of Life Survey in Jefferson and Orleans Parishes." University of New Orleans, Survey Research Center.

Hurley, Andrew. 1995. *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945–1980.* Chapel Hill: University of North Carolina Press.

Johnson, Laurie. 1999. "Empowering Local Governments in Disaster Recovery Management: Lessons from Watsonville and Oakland in Recovering from the 1989 Loma Prieta Earthquake and Other Recent Disasters." In *Lessons Learned Over Time,* vol. 1. Oakland, CA: Earthquake Engineering Research Institute.

Kamel, Nabil, and Anastasia Loukaitou-Sideris. 2004. "Residential Assistance and Recovery Following the Northridge Earthquake," *Urban Studies* 41 (3): 533–562.

Kates, Robert W., Craig E. Colten, Shirley Laska, and Stephen P. Leatherman. 2006. "Reconstruction of New Orleans after Hurricane Katrina: A Research Perspective." *Proceedings of the National Academy of Sciences* 103 (40): 14653–14660.

Kelman, Ari. 2003. *A River and Its City: The Nature of Landscape in New Orleans.* Berkeley: University of California Press.

Klosterman, Richard E. In Press. "Deliberating About the Future." In *Engaging the Future: Forecasts, Scenarios, Plans and Projects,* edited by Lewis D. Hopkins and Marisa Zapata. Cambridge, MA: Lincoln Institute of Land Policy.

Krupa, Michelle, and Gordon Russell. 2007. "N.O. Post-K Blueprint Unveiled," *The Times-Picayune,* March 29, A1.

Laska, Shirley, Michelle Gremillion, and Marla Nelson. 2007 (April). Planning District 6 Resident and Neighborhood Recovery Survey. University of New Orleans, Center for Hazards Assessment Response and Technology.

Laska, Shirley, and Betty Hearn Morrow. 2006. "Social Vulnerabilities and Hurricane Katrina: An Unnatural Disaster in New Orleans," *Marine Technology Society Journal* 40 (3): 7–17.

Laska, Shirley, Marla Nelson, Michelle Gremillion, and Alicia Hernandez. 2006. (September). Planning District 5 Resident and Neighborhood Recovery Survey. University of New Orleans, Center for Hazards Assessment Response and Technology.

Logan, John. n.d. The Impact of Katrina: Race and Class in Storm-Damaged Neighborhoods. http://www.s4.brown.edu/Katrina/report.pdf (accessed May 18, 2007).

Louisiana Speaks. 2007. Regional Vision Poll: Summary of Findings. http://www.louisianaspeaks.org (accessed June 13, 2007).

May, Peter J. 1991. "Addressing Public Risks: Federal Earthquake Policy Design," *Journal of Policy Analysis and Management* 10: 263–285.

Meitrodt, Jeffrey. 2006. "Permit Appeals Pay Off for N.O. Residents; FEMA Concerned About City's Leniency," *The Times-Picayune,* January 15, A1.

Nance, Earthea. 2007. Unnamed presentation, Plenary Session One: Mission Mitigation. Annual conference of the Association of State Floodplain Managers, April 10, New Orleans, LA.

Nee, Brendan, and Jed Horne. 2007. Detailed Description of UNOP. NOLAplans website: http://www.nolaplans.com/unop_detail (accessed May 16, 2007).

New Orleans Neighborhoods Rebuilding Plan (NONRP). 2006. City of New Orleans Neighborhoods Rebuilding Plans Summary. http://www.nolanrp.com/Data/Neighborhood//NOLA_NRP_SUMMARY.pdf (accessed May 2, 2007).

Olshansky, Robert B. 2006. "Planning after Hurricane Katrina," *Journal of the American Planning Association* 72 (2): 147–153.

———. n.d. "How Do Communities Recover from Disaster? A Guide for Planners and Issues for Future Research." Presented at the 2005 Associated Collegiate Schools of Planning conference, Kansas City, MO.

Pastor, Manuel, Jim Sadd, and John Hipp. 2001. "Which Came First? Toxic Facilities, Minority Move-In, and Environmental Justice," *Journal of Urban Affairs* 23 (1): 1–21.

Peacock, Walter Gillis, Betty Hearn Morrow, and Hugh Gladwin, eds. 1997. *Hurricane Andrew: Ethnicity, Gender, and the Sociology of Disasters.* London, UK: Routledge.

Pelling, Mark. 2003. *Vulnerability of Cities: Natural Disasters and Social Resilience.* London, UK: Earthscan.

People's Hurricane Relief Fund. n.d. http://www.peopleshurricane.org (accessed June 14, 2007).

Powers, Michael P. 2006. "A Matter of Choice: Historical Lessons for Disaster Recovery." In *There Is No Such Thing as a Natural Disaster: Race, Class, and Hurricane Katrina,* edited by Chester Hartman and Gregory D. Squires. New York: Routledge.

Rivlin, Gary. 2005. "New Orleans Forms a Panel on Renewal," *New York Times,* September 30, A11.

Saegart, Susan. 2006. "Building Civic Capacity in Urban Neighborhoods: An Empirically Grounded Anatomy," *Journal of Urban Affairs* 28 (3): 275–294.

Sirianni, Carmen, and Lewis Friedland. 2001. *Civic Innovation in America: Community Empowerment, Public Policy and the Movement for Civic Renewal.* Berkeley: University of California Press.

Unified New Orleans Plan (UNOP). 2006. "Citywide Recovery Assessment," Working Paper #2. Appendix.

United Church of Christ. 1987. *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-economic Characteristics of Communities with Hazardous Waste Sites.* New York: Public Data Access.

U.S. Census Bureau, Population Division. 2007. Population Estimates Program, table 1, "Annual Estimates of the Population for Incorporated Places Over 100,000, Ranked by July 1, 2006 Population: April 1, 2000 to July 1, 2006." (SUB-EST2006-01)

U.S. Department of Housing and Urban Development (HUD). 2006. Current Housing Unit Damage Estimates. U.S. Department of Housing and Urban Development, Office of Policy Development and Research. http://www.huduser.org/publications/pdf/GulfCoast_HsngDmgEst.pdf. Revised April 7 (accessed April 2, 2007).

Warner, Coleman. 2006. "N.O. Blazes Trail for Grant Money; City and State Agree on Planning Process," *The Times-Picayune*, July 6, A1.

Williamson, Abigail. 2007. Citizen Participation in the Unified New Orleans Plan. http://www.rockfound.org/about_us/news/2007/0328no_harvard.shtml (accessed June 3, 2007).

Wisner, Benjamin. 2004. *At Risk: Natural Hazards, People's Vulnerability, and Disasters.* London, UK: Routledge.