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CAN DECENTRALIZED BOTTOM-UP POST-DISASTER RECOVERY BE EFFECTIVE?

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Can decentralized bottom-up post-disaster recovery be effective?*

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Abstract

Hurricane Katrina hit the Gulf Coast on August 29, 2005, leaving a great deal of destruction, pain, and uncertainty in its wake. Significant and centralized government involvement is often viewed as the necessary solution to the collective action problem that occurs after a major crisis. Given the government's poor performance post Katrina, it is fortunate that a government-coordinated recovery effort is not a necessary solution to the challenges of disaster recovery. Using data from interviews with affected residents and community leaders in New Orleans after Katrina, this article explores the effectiveness of private disaster-recovery efforts and whether or not there are reasons to believe that a decentralized rather than a centralized response to disasters could be more effective.

Keywords: post-disaster recovery, Hurricane Katrina, New Orleans

* The standard disclaimer applies.

Introduction

Hurricane Katrina hit the Gulf Coast on August 29, 2005, leaving a great deal of destruction, pain and uncertainty in its wake. In New Orleans and the surrounding Gulf Coast area, the storm and the floods which followed damaged and destroyed homes and businesses, uprooted and displaced families, and resulted in over $81.2 billion in damage and 1,353 directly linked fatalities (U.S. Department of Commerce, 2006). Adding to the confusion and uncertainty regarding the prospects of immediate and long-term recovery, in the months following Katrina, municipal, state, and federal government officials made conflicting statements about how government would respond to the disaster (Chamlee-Wright, 2007; Chamlee-Wright and Storr, forthcoming).

Perhaps not surprisingly, post-Katrina recovery in New Orleans has been slow and uneven. While some New Orleans communities have almost completely recovered, others have not rebounded.[1] Such variation, ranging from the quick recovery of some communities to slow and impeded efforts in others, reflects the different abilities and resources that the various affected residents can draw on as well as the different constraints that they face as they try to recover from the storm (Green et al., 2007). The decision to rebuild a home or business after a disaster is difficult and potentially very expensive. Moreover, post-disaster community rebound is a "collective action problem" (Chamlee-Wright and Storr, 2009a). Individuals looking to come back and rebuild do not want to be alone in their effort. Additionally, individuals are understandably reluctant to return and rebuild in a neighborhood whose character may change dramatically if their neighbors do not return. Consequently, it makes sense for displaced residents to wait until they see others returning before committing to the task. If no one is willing to move first, this situation could make community recovery impossible. Indeed, if return is delayed as displaced residents wait to see what other displaced residents will do, individuals might settle down in new locations, abandoning all hopes of returning to their previous communities.

Significant government involvement is often viewed as the necessary solution to the collective action problem that occurs after a major crisis (see, for instance, Birch and Wachter, 2006). Unfortunately, the government's immediate response to Katrina and their efforts during the recovery process have been roundly criticized. Schneider (2005), Eikenberry et al. (2007), and Farazmand (2007), for instance, have highlighted the administrative breakdowns within the federal bureaucracy which hampered the government's response to Katrina. Similarly, Olshansky et al. (2008), has argued that the early proposed plans (especially the BNOB plan) were hastily developed and that the various planning bodies involved did not effectively communicate the goals and expected outcomes of their plans to displaced residents. Moreover, Bosman et al. (2007, p. 21) argue that redevelopment planning initiatives continue a historical pattern in which "African-Americans have been pushed out of their homes, or forced off the land they once occupied."[2] And, Shugart (2006), Congleton (2006), Gordon and Ikeda (2007), Norcross and Skriba (2008), Horwitz (2008; 2009a; 2009b), Sobel and Leeson (2007), and Leeson and Sobel (2008) have sought to challenge and explain the government's inability to respond effectively to Katrina.

Fortunately, in light of the government's poor performance post-Katrina, a government-led recovery effort is not a necessary solution to the challenges of disaster recovery. Charities, non-governmental organizations, and neighborhood associations, for instance, can help individuals overcome the collective action problem they face after a disaster. Indeed, several of the communities that rebounded quickly from Katrina did so without significant government aid or even government approval. For example, by the summer of 2007, 90 percent of the Vietnamese-American community in New Orleans East had returned to New Orleans even though that area experienced some of the city's most severe flooding and early recommendations in the redevelopment planning process had suggested that the area become open space (Chamlee-Wright and Storr, 2009d).

Using data from interviews with affected residents and community leaders in New Orleans after Katrina, this article explores the effectiveness of decentralized bottom-up disaster recovery efforts and whether there are reasons to believe that a decentralized, rather than a centralized, response to disasters is likely to be more effective. Given the well-documented government failures post-Katrina, it is not surprising that, where recovery has been successful in New Orleans, private actors or organizations acting in a decentralized fashion have proved critical. By focusing on the challenges that governments necessarily face in post-disaster situations as they attempt to promote top-down centralized recovery as well as the successes of non-governmental actors and organizations in promoting decentralized bottom-up post-disaster recovery, our study suggests that communities affected by disaster can rely on decentralized responses.

The section below describes the difficulties that government must overcome if it is to bring about successful recovery and the capacity of decentralized efforts to spur community rebound. The next section then briefly describes the research methods employed. This is followed by a description of how businesses, community organizations, and nonprofits, in particular the Broadmoor Improvement Association and Habitat for Humanity, stepped in to promote recovery in spite of or in the absence of government action. The final section offers concluding remarks.

Decentralized versus centralized responses to disasters

Governments hoping to centrally plan the recovery of a community following a major disaster must overcome a "knowledge problem" where information is dispersed among the individuals within the society and must be somehow gleaned and integrated in order to develop a successful post-disaster redevelopment plan. This problem, identified and articulated by Nobel Laureate F.A. Hayek in "The Use of Knowledge in Society"(1945), is a key insight to understanding the mechanisms which allow

individuals (both as consumers and producers) to tap into the dispersed information and knowledge of society and lead to economic and social growth. Hayek argued that markets, through the use of prices and the profit-and-loss system, direct resources to their highest valued use without the need for a central planning agency. Central planners, he argued, cannot gain access to and use the knowledge of society like individuals and organizations can within markets. As Hayek stated, central planners face "a problem of the utilization of knowledge not given to anyone in its totality" (Hayek, 1945, p. 520).

In "The Use of Knowledge in Natural-Disaster Relief Management," Sobel and Leeson (2007) argue that, if disaster management is to be effective, government agencies must be able to (a) recognize that a crisis has occurred, (b) determine what needs must be met and how supplies and resources will be allocated to best serve those needs, and (c) evaluate and modify the relief effort as circumstances change. Looking at immediate post-Katrina relief efforts, specifically those of the Federal Emergency Management Agency (FEMA), they concluded that the government agencies tasked with disaster management failed at multiple key levels. First, the Department of Homeland Security was late in declaring Hurricane Katrina a disaster (Sobel and Leeson, 2007). Second, FEMA misallocated and often failed to allocate labor and resources that could and should have been used in the relief effort (Sobel and Leeson, 2007). And, finally, even though government actions were widely criticized, FEMA received a larger budget and more responsibility for the federal government's post-Katrina response (Sobel and Leeson, 2007).

While the government agencies tasked with disaster relief in the immediate aftermath of Katrina performed poorly, individuals and private organizations who participated in relief performed relatively well (Sobel and Leeson, 2007; Horwitz, 2008, 2009a, 2009b; Carden, 2009). Ordinary citizens took action by bringing water, clothing, and food to people in need (Sobel and Leeson, 2007). Likewise, companies, like Wal-Mart, quickly reopened, sometimes selling and giving away supplies out of trucks and tents

(Sobel and Leeson, 2007; Horwitz, 2008, 2009a, 2009b). These decentralized efforts were often undertaken more quickly and effectively than the government-led relief efforts that were attempted. Unlike government agencies, actors within the private sector were able to rely on prices, profits, volunteers, and donations which helped them to determine what supplies were needed and how resources should be allocated by providing useful feedback and holding them accountable when they made mistakes. Where successful, post-Katrina disaster management relied on the decentralized efforts, with private individuals, companies, and organizations spearheading relief efforts in the immediate aftermath of the disaster.

It is our contention that for similar reasons the long-run post-disaster recovery process can also (and may have to) rely on decentralized responses. Following a disaster, the government's ability to coordinate the activities of hundreds of thousands of displaced residents, to build community confidence that recovery will succeed, and to spur return from a disaster the size of Katrina is severely weakened because it faces a similar coordination problem to the one that displaced residents face. While it is rational for individuals to wait for utilities to be turned on, roads to be cleared, support services to be restored, infrastructure to be rebuilt and neighbors to return, because of the enormity of the disaster and the myriad of potential uses for limited government resources, the government may likewise have to wait for its affected citizens to commit to returning and rebuilding before restoring utilities, clearing the roads, etc.

If policymakers could pick viable neighborhoods and identify and support first movers, however, they might be able to overcome this coordination problem and would be able to encourage community confidence and spur return. Or, if enough resources were available, the post-disaster coordination problem that exists between government officials and displaced residents could be made irrelevant. Unfortunately, even if the coordination problem could be overcome or made irrelevant, government

officials still necessarily face another, perhaps more daunting, problem. Government officials cannot predict which communities are likely to recover because recovery is necessarily based on the decentralized decisions of multiple individuals. Of course, government officials can slow or even foreclose the recovery of some communities by refusing to restore essential services or issue building permits. Similarly, policymakers can encourage the recovery of some communities by offering various incentives. But, absent information on the plans and purposes of the myriad displaced residents, policymakers lack much of the knowledge that they would need to make a non-arbitrary decision regarding which communities to encourage and which to discourage. That after a major disaster affected residents can become displaced and dispersed only enhances this knowledge problem; the difficulties in locating and communicating with displaced residents make determining their plans and purposes even more complicated.

If a government is to be effective at planning and leading recovery, it must determine (a) which residents are most likely to return and which neighborhoods are most likely to rebound, (b) how best to allocate resources, and (c) when it has made mistakes and how to correct them. Again, the failure of government at each of these levels is well documented. For instance, Gordon and Ikeda (2007) state that there are always limits to urban planning which are accentuated during a crisis. Moreover, as of 2007, the city of New Orleans had invested in five different plans without settling on a single one (Olshansky et al., 2008). Each plan suggested that different areas should rebuilt and revived, leaving citizens confused and uncertain. The city's inability to select a plan wasted resources and stalled recovery.

Conversely, Chamlee-Wright and Storr (2008; 2009a; 2009b; 2009c) have described how decentralized bottom-up efforts have been able to spur recovery. As they argue, Katrina displaced large portions of the New Orleans population and left what they describe as a "civil-society vacuum" (Chamlee-Wright and Storr, 2009a). Municipal, state and federal governments attempted to fill this vacuum in the storm's

immediate aftermath. Unfortunately, the policies that they implemented, the regulations they imposed, and plans that they issued, tended to increase the level of uncertainty with which affected residents had to contend. "As the presence of government increases and the decision-making authority generally afforded stakeholders in private civil society is diminished," Chamlee-Wright and Storr (2009a, p. 2) write, "the expectations of those waiting on the sidelines will tend to anchor around the pessimistic outcome [i.e. that their community will not rebound]." In other words, when the civil-society vacuum is filled by government rather than private action, recovery can be distorted and impeded. When the civil-society vacuum, however, is filled by private individuals and community stakeholders including individual business owners, non-profits, religious organizations, and neighborhood organizations, a sense of commitment will be restored and other community members will be encouraged to return and participate in further recovery. When this space is filled by decentralized organizations, then, real and lasting recovery and redevelopment is attainable.

Chamlee-Wright and Storr (2008; 2009b) have also described how commercial and social entrepreneurs have found ways to overcome the collective active problem which characterizes all major post-disaster contexts and the additional barriers to recovery created by government failures. In the area surrounding the Mary Queen of Vietnam Catholic Church, for instance, Fr. Vein and other church officials kept in touch with displaced residents and encouraged their quick return by holding services, lobbying government officials, and obtaining supplies through political pressure and the effective use of media. Similarly, in the Broadmoor neighborhood, residents and business owners through the organization of the Broadmoor Improvement Association, communicated electronically via text messages and emails with displaced neighbors to determine who was returning and how they could help one another to get the neighborhood back on its feet. Affected residents from neighborhoods across New Orleans found ways to overcome barriers to rebuilding by collaborating with other members of their

community (Chamlee-Wright and Storr, 2009a; 2009b). These examples show that commercial and social entrepreneurship rather than top-down centrally planned efforts are crucial to overcoming the collective action and knowledge problems that complicate post-disaster recovery and, consequently, to achieving a successful recovery.

In the following sections, we will explore in detail how private organizations, in particular the Broadmoor Improvement Association and Habitat for Humanity, effectively overcame the problems of knowledge dispersion and collective action in the post-Katrina environment and so triggered community rebound. The neighborhood of Broadmoor promoted community resilience and overcame the uncertainty of ever-changing zoning plans through the organization, support, and actions of their neighborhood association, the Broadmoor Improvement Association (BIA). Habitat for Humanity (Habitat) helped citizens overcome the substantial physical, monetary, and emotional constraints to rebuilding by providing resources, labor, and support. BIA and Habitat, as well as many other organizations, acted outside the scope of government disaster management and effectively encouraged return, challenged policy decisions, and proved the viability of their communities through physical rebuilding. The next section, however, describes our research methodology.

Research methodology

The analysis presented here is based on qualitative interview data conducted as a part of an ongoing investigation of community recovery and rebound after Hurricane Katrina. To date, the research team has conducted over 300 semi-structured interviews with residents and community leaders in Orleans and St. Bernard Parishes, Louisiana. The team also conducted 103 surveys and/or interviews with New Orleans evacuees still living in Houston three years after the storm (i.e. Summer 2008). As part of the standard interview structure, subjects were asked to describe their communities prior to Katrina, their

experiences during Katrina, and the challenges they faced in their efforts to return and rebuild post-Katrina. Interview subjects were asked specifically about the role of family, friends, charitable organizations, businesses, and government agencies in their efforts to return and rebuild.

Interviews were conducted in Broadmoor, the focus of the next section, during May and June 2008. As with the interviews conducted in other areas, we interviewed residents and community leaders in the area including individuals formally associated with the Broadmoor Improvement Association. Although these interviews followed the same arc as interviews conducted in other areas in New Orleans, these interviews asked specifically about the activities of the BIA. Of the 300-plus interviews conducted as a part of this project on post-Katrina recovery, 40 interviews were conducted in Broadmoor. While no interviews were conducted with individuals formally affiliated with Habitat for Humanity in New Orleans, 28 interviews mentioned Habitat's activities in New Orleans post-Katrina. The information gleaned from interviews was augmented by data from newspapers, government records, and published information on both organizations.

Redeveloping Broadmoor

Broadmoor is located in central New Orleans, northeast of Tulane University and the Uptown neighborhood. Broadmoor is a community bordered by South Jefferson Davis Parkway to the north, South Claiborne Avenue to the south, Toledo and Washington to the east, and Octavia to the west and is confined to roughly a square mile of space. Historically diverse in terms of wealth, race, and ethnicity, the neighborhood can be thought of as a "microcosm" of the larger city of New Orleans (Chamlee-Wright and Storr, 2009a). Before Katrina, households within Broadmoor earned incomes ranging from $10,000 to $200,000 a year; very wealthy families lived just a few streets away from struggling single-parent families (Greater New Orleans Community Data Center, 2000).[3] Median income for the neighborhood was just

above $27, 000 and roughly 32 percent of Broadmoor's residents lived in poverty before Katrina (Greater New Orleans Community Data Center, 2000). Prior to the storm, the racial and ethnic make-up of the neighborhood was 68 percent African-American, 26 percent white, and just below 4 percent Latino (Greater New Orleans Community Data Center, 2000). In the 1950s, the neighborhood also saw an influx of Jewish residents who moved into the area because of the construction of the Chevra Thilim Synagogue (Greater New Orleans Community Data Center, 2000).

The diversity within Broadmoor often resulted in an atmosphere similar to a small city rather than a typical New Orleans neighborhood. Still, a neighborhood organization was established in the 1930s and was incorporated in the 1970s to provide a forum on public services, infrastructure needs, and neighborhood watch (BIA, 2008).[4] The organization, now known as the Broadmoor Improvement Association, also spearheaded a fight in the 1970s against "blockbusting," a maneuver by the real estate industry to encourage the racial separation of neighborhoods. BIA organized the resistance to blockbusting in order to preserve their "well-established, multi-racial/multi-ethnic community [that was] already living in harmony" (BIA, 2008). The main focus of BIA was, and continues to be, to enhance the connection and cohesion between racially and economically diverse residents and to generally improve the quality of life in Broadmoor.

After the storm and flooding of Hurricane Katrina, the neighborhood of Broadmoor was in complete shambles. The central, low-lying location of the neighborhood incurred average flood depths of eight feet, resulting in massive destruction and loss. The citizens of Broadmoor had to wait weeks before they were allowed to return and assess the damage done to their homes. As with other areas in New Orleans which received significant flooding, at the end of 2005, few residents had returned to Broadmoor (Chamlee-Wright and Storr, 2009a). In early 2006, the Bring New Orleans Back Commission (BNOB) released its plan for the reconstruction of New Orleans which included turning the neighborhood of

Broadmoor into a green space, essentially eliminating the community.[5] BNOB provided maps of the proposed plan, released in *The Time-Picayune* on January 11, 2006, which portrayed the area of Broadmoor as a "green dot." The commission made it clear that it would follow through with its plans unless communities could prove viability within four months, meaning that communities had to show that at least fifty percent of citizens were committed to return.

The BNOB plans shocked the residents of Broadmoor, both the few who had returned and the numerous still displaced, and fueled them into action. In other words, the catalyst for action, the dreaded "green dot," stimulated Broadmoor to initiate return on their own and to reestablish the community's role within New Orleans. As Chamlee-Wright and Storr (2009a, p. 7) posit that, "if private citizens were going to reoccupy their community's physical, social, and political space, they would have to orchestrate a robust civil society response." The "green dot" quickly brought community members together under the existing structure of the Broadmoor Improvement Association to do just that. The organization, with the leadership of President Latoya Cantrell, contacted displaced citizens via text messages, emails, phone calls, and flyers, encouraging them to return to the neighborhood to discuss how to prove viability and begin actions toward recovery.

BIA's initial efforts to overcome the collective action problem facing its community were successful. One week after the announcement of the BNOBC plan, BIA held a meeting on the fate of the community. The meeting drew in a large number of Broadmoor residents which allowed for immediate planning and mobilization. At the end of the meeting numerous plans had been put into action, including a BIA petition against the "green dot," the creation of a BIA website to assist in outreach and rebuilding support, and the creation of their own Revitalization Committee to bring planning and rebuilding under the community's control (BIA, 2006). President Cantrell also emphasized that in order to prove viability,

citizens needed to get in contact with their neighbors and BIA needed to record the status of each property in Broadmoor.

Maggie Carrol, BIA's secretary and board member, described the attitude of the meeting as follows:

> We just hatched out all the different scenarios. One scenario would be to fight and protest. The other scenario was to look at the Bring New Orleans Back plan, and it seemed like they wanted neighborhoods to prove viability. So either we could stomp our feet and fight, fight, fight, or we could prove our viability. We decided to prove our viability.

At the end of that meeting, BIA was well on its way as the organized front in the reestablishment and revitalization of Broadmoor. Maggie Carrol attributed the large-scale mobilization effort to the already organized structure of BIA which aided communication and outreach efforts.

Additionally, BIA's ability to form partnerships with the community's religious organizations, proactive residents, business owners, local and national nonprofits, and universities helped establish BIA's role in the reconstruction of Broadmoor. Through its existing organizational structure and position within the community, BIA was able to use its local knowledge, expertise, and connections to reestablish Broadmoor as a vital area within New Orleans. One of BIA's partners in the recovery effort summed up nicely the united front of Broadmoor: "A core group of residents—many of whom had never met each other and none of whom had ever worked on a redevelopment plan—would take the lead in organizing the planning process for the still-scattered community"(Harvard, 2009).

In order to be successful at determining which residents were planning to rebuild, publicly showing the commitment of displaced residents to return to the neighborhood and assisting residents in the rebuilding, BIA had to obtain and use vast quantities of neighborhood specific knowledge. In other words, the actual recovery process was much more complex than organizing a few meetings and passing

around a petition or two. As BIA president, Latoya Cantrell stated, "How we were going to do it, one, rely on ourselves; rely on the resources within, and that was the people. We knew we were a very diverse community, not just racially, but economically, professionally, that sort of thing." Thus, in the months that followed, BIA strengthened relationships with various members of the community, worked to contact displaced members and determine their commitment to return, and developed systems to aid in the tracking of the rebuilding process—further establishing its role in civil society.

BIA used members' homes and local churches as impromptu headquarters for operations. Local churches became an integral element in the rebuilding process by providing spaces for meetings, administrative support, and an organizational element through which volunteer groups and supplies were funneled. BIA member, Kimberley Saxon,[†6] described the generosity of local church leaders as a testament to unity, "We're all in this boat together, which I thought was—that was the feeling of all of Broadmoor at that time. We're in this together. We're going to fix it together." Specifically, the Episcopal Church of the Annunciation, the Broadmoor Presbyterian Church, and Saint Matthias Catholic Church realized the need for a united community and formed relationships with BIA, "as this would ensure that the city understood that there was a clear center of coordination and communication within the community" (Chamlee-Wright and Storr, 2009a, p. 7).

BIA and Broadmoor residents used the skills and tools available within their diverse community to prove their viability, highlighting the ability of private citizens to effectively tap into dispersed knowledge and use it to their advantage during recovery. Nikki Malone[†] articulated this nicely, "We've realized that we have such capacity here, and it already exists. People have so much expertise, and we're just able to really hone in and use those skills for the betterment of the entire neighborhood." Like the cooperation with religious leaders, BIA was able to use the abilities of its active and concerned members to its fullest advantage, including the local knowledge of construction, marketing, technology, and media.

Broadmoor resident and BIA board member Virginia Saussy, who had advertising experience from working in the jewelry industry, developed a plan for a marketing campaign and worked with a Boston-based agency, Digitas Media, Inc, to take on the effort pro-bono. Signs reading "Broadmoor Lives—In the Heart of New Orleans" were posted all over the neighborhood, "Better than Before" became the inspirational motto for the community, and BIA members and residents spread the word of recovery and policy resistance through the local and national media (Warner, 2006; Warner and Darcé, 2006; Winkler-Schmit, 2006). By rebranding the community as one of activity and improvement, BIA was able to signal a commitment to repopulation and community revitalization.

In order to strengthen the recovery effort, BIA partnered with not only churches and nonprofits but also with businesses and universities. The support of businesses, like Digitas Media, Inc., provided a signal that Broadmoor could successfully rebuild and be a sustainable and profitable area within New Orleans. Donations by prominent organizations—such as the Clinton Global Initiative, the Carnegie Corporation of New York, Mercy Corps, and the Surdna Foundation—provided essential funding to rebuild and improve fundamental institutions within the community—such as a charter school, a library, and a community center—and solidified Broadmoor's influence.[7]

Additionally, partnering with university groups provided the professional and academic support needed for BIA to effectively engage in data collection, community development, and public discourse. Consider, for instance, the BIA's work with Belfer Center for Science and International Affairs at Harvard University's Kennedy School of Government.[8] Together, the BIA and Belfer Center initiated a community-based development plan and set out mapping the recovery of Broadmoor. Students and scholars took on the challenge of collecting and interpreting data on the progress of rebuilding, proving that Broadmoor was committed to recovery and residents were actually returning. Their success was dramatic; 82.2 percent of the properties in Broadmoor had been rebuilt or were under construction as of

January 2009 (BIA, 2009). The name recognition of Harvard alongside clear evidence of repopulation convinced donors to fund recovery and convinced politicians that Broadmoor was a viable community (and not a "green dot"). As reward for its efforts, Broadmoor's community development plan was fully incorporated into the second city-wide planning report, the Lambert Plan. It has since been included in each additional report developed or purposed by the city. While the public development and revitalization process continues years after the storm, Broadmoor effectively developed and implemented its own plan within months after Katrina and effectively altered its path to recovery by proving its own vitality.

BIA's ability to overcome the collective action problem that characterizes post-disaster recovery by unifying the community against the "green dot" and effectively using of local knowledge to prove community viability, access funding, and initiate recovery highlights the success of this community-based organization as an engine of private disaster recovery. As a result of BIA's efforts, Broadmoor has not just been rebuilt but has transformed into an active, unified community. The residents and business owners now get together for block parties and festivals which focus around a central residential thoroughfare, Galvez Street, in Broadmoor. In fact, Edward Dinkens,† a Galvez Street resident, described the community as close-knit, "We all know each other [after Katrina]. So it makes it kinda like a little Mayberry Street in Broadmoor. So it's nice." Additionally, the membership and activity of BIA has increased substantially since the storm. It is difficult to imagine any (governmental or non-governmental) organization that was not embedded within this community bringing about this sort of community revitalization. Critical to BIA's success was its capacity to identify and tap into local knowledge and resources. As BIA member Janis Anderson† remarked, "Government can get their boots on the ground and still never have a grassroots level … Government cannot rebuild the social capacity of the community. The people do that."

Yet, impediments to full recovery still exist. While the plans for a charter school were approved and construction began in 2008, the rebuilding of the library has been postponed due to regulatory uncertainty regarding the use of private funding for the renovation of a public building. Also, roughly 18 percent of the neighborhood has yet to be rebuilt. These properties remain vacant and unaltered for numerous reasons. Some former residents have relocated after the storm, settling into new jobs, schools, and communities outside of New Orleans. Other citizens may want to return and rebuild but lack the financial, physical, or emotional resources to do so. BIA effectively overcame the uncertainty of government recovery planning and initiated a vast and successful private recovery effort. Yet, in order to fully revive the community, other private individuals and organizations must, and have, come together to provide further opportunities to overcome resource constraints. One organization among many effectively revitalizing New Orleans and the surrounding Gulf Coast area is Habitat for Humanity.

Building new homes and repairing damaged homes

Habitat for Humanity is an international nonprofit organization that helps low-income individuals and families across the nation and the world to become homeowners of affordable and adequate housing. The organization was founded by Millard and Linda Fuller in 1976. The Fullers had left their home and business in Alabama to live and work on Koinonia Farm, a Christian community in Georgia where Millard worked with families to build their homes (Husock, 1995; Youngs, 2007). While at Koinona, the Fullers developed a faith-based model of building which involves partnership between homeowners, sponsors, and volunteers as well as providing a mortgage that covers the cost of building materials and accumulates no interest. The Fullers see this model of "partnership building" as a way of spreading Christian principles, in particular the beliefs that every individual deserves a decent home, that love and

action are the best form of ministry, and that discussion and common ground is possible through working side-by-side with people of different faiths and ideologies (Fuller, 1994; Baggett, 2000).

In order to effectively reduce the number of impoverished people living in adequate housing, Habitat has structured a program that requires potential homeowners to prove their ability and desire for homeownership. These standards include that potential homeowners: (a) make between the 25 percent to 50 percent of the area's median income; (b) take classes on homeownership, home repair, and personal finances; (c) complete "sweat equity" hours by working on other homes or at the Habitat offices; and (d) make monthly payments on their at-cost, no-interest mortgages (Husock, 1995; Baggett, 2000). Habitat also uses a decentralized organizational structure. Although the centralized headquarters track national and international progress and organize advocacy programs, broad fundraising and media outreach, the houses are typically built and prospective residents are screened by independent city and county affiliates and their local partners (Husock, 1995; Baggett, 2000). Through their programs and structure, the organization aims to foster independence and prosperity by supporting, teaching, and encouraging homeowners to literally build their own futures.

Habitat has had success in overcoming the adverse selection problem that could plague efforts to provide low income housing because of its partnerships with local organizations (including church groups) and through their application process. By requiring that potential home owners volunteer a significant number of hours with Habitat to provide "sweat equity" and that they attend homeownership classes, Habitat ensures that only those individuals who are committed to homeownership qualify for its houses (Gelinas, 2008). Additionally, because Habitat works through local affiliates and partners with local organizations it is able to tap into local knowledge as they screen potential homeowners.

Before Katrina, Habitat for Humanity partnered with local churches and businesses in New Orleans to build houses for the poor. The New Orleans Area Habitat for Humanity has been present and active

since 1983 (more than two decades before Katrina). The affiliate had helped roughly 100 families achieve homeownership prior to Hurricane Katrina by building structurally secure yet affordable houses (Gelinas, 2008). The organization is run by a board of local residents and businesspersons, follows the partnership building model, organizes fundraising and advocacy events, and runs a Habitat ReStore which sells donated and overstock home improvement supplies (NOAHH, 2010).

After Katrina, Habitat provided communities with building materials, helped to repair damaged homes, and facilitated the building of new homes in New Orleans. Both through the international organization and its local affiliates, Habitat for Humanity was able to step in and respond to those in need in the months following Katrina because they were already involved in the community, had a well-developed model for providing low-cost homes, and had considerable experience of home construction in New Orleans (Bond, 2005; Mays, 2005; Gelinas, 2008). Additionally, Habitat had experience in responding to disasters—such as typhoons, hurricanes, earthquakes, tsunamis, landslides, and humanitarian emergencies—within the United States and across the world and was able to leverage those experiences to initiate their Gulf Coast Recovery Effort (Miami Herald, 1993; Pierson, 1993; Korea Times, 2003; Sharma, 2003; Curry, 2005; Ivy, 2005; BusinessWorld, 2006; Eaton and Strom, 2007; New York Times, 2007; Kwok, 2009; Mackinnon, 2010).

Essentially, the organization provided the support and resources needed by citizens that wished to return yet lacked the capital and resources to do so. Stated another way, they strengthened recovery by actually rebuilding communities after viability and commitment to return had already been established. As Ninth Ward Resident Catherine Parker† describes,

> Habitat for Humanity, they have built a lot of houses, so they have been helpful to this community. … Because I know most of the time before at the places where they build those houses, there probably was like an old house that wasn't

> painted or something like that and they have really created homes for people that wanna come back. And they put them on the financial stability thing so you know they can pay the mortgage and stuff and own the house, so I think that's a good thing.

Brian Moss†, a resident of St. Bernard Parish, has similarly highlighted the key role that Habitat played post-Katrina. "Habitat for Humanity," he explains, "geeze I can't say enough about them and built houses or repaired to a point I mean, is it okay, you can handle from here and that gets people a fired up."

Hurricane Katrina affected and disrupted all aspects of life, including the headquarters and operations of the local Habitat for Humanity affiliate in New Orleans. Instead of spending evacuation time waiting around for a public response, however, Habitat immediately began the recovery effort by organizing the "Operation Home Delivery" project just five days after the storm (Bond, 2005; Mays, 2005; Today, 2005). The national project was aimed at restoring the local affiliate headquarters and partnering with other organizations to begin recovery (Bond, 2005; Mays, 2005). Starting on September 26th, Habitat in collaboration NBC's News *Today* and the Warner Music Group began building 65 housing frames which were completed over the course of a week, 45 of which were constructed in Rockefeller Plaza (also known as "Humanity Plaza" that week) in New York City (Bond, 2005; Today, 2005). The housing frames were then shipped to disaster-affected areas in Louisiana, Mississippi, and Alabama, and Habitat and its partners began assembling them into homes just six weeks after the storm.

Since Katrina, Habitat established efforts on the ground all over the Gulf Coast. Through partnerships with churches and other housing and poverty focused nonprofits, Habitat tapped into the local knowledge of citizens and volunteers to implement the reconstruction of existing housing as well as the construction of new homes. Habitat's ability to use group collaboration allows for minimal training

and effective use of local knowledge to build homes quickly and efficiently. By each volunteer focusing a few small jobs, complete houses can be built over the course of a week. Since the storm, Habitat has constructed over 1,300 homes at a rate of roughly 50 houses a month (Eaton and Strom, 2007; HFHI, 2010). Additionally, almost 900 homes were cleaned out and repaired in collaboration with Church World Service and Rebuilding Together (Heavens, 2006; Jenkins, 2008). Moreover, in 2008 the annual Jimmy and Rosalynn Carter Work Project took place in areas along the Gulf Coast. The weeklong build-a-thon included 5,000 volunteers and provided over 250 families with new homes (Kessie, 2008; Plaisance, 2008). The Salvation Army, Thrivent Financial for Lutherans, and other organizations and religious groups contributed by housing volunteers, providing down-payment assistance, and helping to find suitable homes for those in need (Heavens, 2006; International Business Times, 2008). Habitat also lobbied for and supported policy that encouraged citizen-based recovery (Pfeiffer, 2006).

Habitat's partnership with the Baptist Community Ministries is noteworthy. Prior to Katrina, these groups worked together to provide opportunities for homeownership in the Upper Ninth Ward in a neighborhood bounded by N. Robertson St., Montegut St., Florida Ave., and Poland Ave. As Reverend Inman Houston, Associate Pastor at the First Baptist Church of New Orleans, describes,

> New Orleans's poverty, even before Katrina, was a very large concern. And, so we really saw it as a merging of a vital need of our city with one of the core teachings of Jesus. And, so [before Katrina] we entered into a partnership with Habitat for Humanity to construct 40 homes in the summer of 2006. And this initiative really got underway in the fall of 2004, and we received a $1.5 million matching grant early in 2005. And we were really just, you know, pushing forward to the summer, we were already lining up volunteers, and then Katrina, of course, came through in August 2005 and sort of changed everything.

Early in 2006, the First Baptist Church through the Baptist Crossroads Foundation, the nonprofit that was established to lead the project, reconnected with Habitat and recommitted to the pre-Katrina plan to build 40 homes.

Many community members, celebrities, and businesses worked with Habitat and provided support, resources, and labor during the months and years after Katrina. Habitat, through the inspiration and support of Harry Connick, Jr. and Branford Marsalis, for instance, constructed the Musician's Village in order to help displaced musicians return to the city (Gelinas, 2008). New Orleans is often defined by its culture and night life and is especially known for its jazz. The goal of the project was, thus, to provide a haven for musicians that were drastically affected by the storm and support the cultural backbone of the city at the same time. As such, at the neighborhood's center was a music center designed to serve, entertain, and educate surrounding community members (Kamin, 2010). Fundraising for the project was procured through the sales of a hurricane relief collaborative album (Oulette, 2006). The Musician's Village includes 72 single-family homes in the Upper Ninth Ward and is planned to expand with 70 to 150 more homes (Jonsson, 2007; Gelinas, 2008).

Similarly, after Katrina, Habitat worked to provide building materials for affected residents. As Pastor Ballard of Christian Fellowship Family Worship Center, a Baptist Church in St. Bernard Parish, describes, "we partnered with Habitat for Humanity and they kind of have a sheet rock program, and we have—we're now helping people with sheet rock for their homes through Habitat for Humanity's program, but we're facilitating it by finding the needy people." Anita Jones†, a resident of Broadmoor, also highlighted the importance of Habitat's effort to provide building materials to affected residents and to help with home repairs post-Katrina. "Then Habitat—they got into the program. They gave me sheetrock, some sheetrock to start off," she explains, "And, yeah, Habitat is doing my back yard. … They're doing the back yard for me and they came over and they—I had a lot of little help."

The quick and continued success of Habitat resulted in a consistent flow of donations and volunteers. Such actions by private individuals were valuable signals that Habitat was providing a needed and appreciated service. While government agencies and politicians struggled with understanding how to serve citizens and to develop long range community redevelopment plans, private organizations like Habitat forged ahead with the business of bottom-up post-disaster rebuilding. Habitat's success shows that the efforts of private individuals and organizations can effectively access local knowledge and assist in post-disaster recovery.

Conclusions

Given the scale of damage that resulted from Hurricane Katrina and the flooding which followed it, it is not surprising that recovery has been a slow and uneven process. In order to rebound, displaced residents not only have to decide that the necessarily uncertain benefits of return outweigh the very real and quite significant costs but have to locate and marshal the material, physical, psychological, and emotional reserves needed to rebuild. That the socially vulnerable communities in the Greater New Orleans region had to overcome significant impediments to recovery beyond those which everyone affected by Katrina had to overcome only complicated the process of recovery (Finch et al., forthcoming; Green et al., 2007).

After Katrina there were efforts by government leaders at the federal, state, and municipal levels to centralize the disaster response and recovery process. Within months of Katrina, for instance, the Mayor Ray Nagin-sponsored Bring New Orleans Back Commission developed an initial plan for the city which suggested that some communities not be allowed to develop without soliciting wide input from New Orleans residents. Similarly, the federal government managed their disaster-response efforts through the Federal Emergency Management Agency. And, the state government of Louisiana has managed its

recovery efforts through the Louisiana Recovery Authority. These centralized efforts have been widely criticized (Schneider, 2005; Olshansky et al., 2008; Norcross and Skriba, 2008; Sobel and Leeson, 2007). There are reasons to expect that centralized efforts to promote post-disaster recovery will face challenges. In particular, because community recovery is necessarily based on the decisions of a myriad of individuals who might very well be dispersed as a result of the disaster, centralized actors will find it difficult to determine precisely how to effectively respond.

Interestingly, those post-Katrina recovery efforts that were the most successful tended to be decentralized efforts that were able to utilize local knowledge and mobilize local resources. The Broadmoor Improvement Association's role in the redevelopment of Broadmoor as well as Habitat for Humanity's role in rebuilding homes across New Orleans highlight the capacity of private actors to overcome collective action and knowledge problems that hamper post-disaster recovery. Rosegrant (2007) and Horwitz (2009a; 2009b) have, similarly, described how businesses like Wal-Mart were able to effectively respond to Katrina (e.g. reopening quickly and in some cases giving away merchandise) because local managers were allowed to take initiative and make decisions without having to clear their decisions with regional or national supervisors. Additionally, Chamlee-Wright and Storr (2009b) have described how various social entrepreneurs in New Orleans worked to provide services necessary for rebuilding and recovery. Moreover, Agemy (2010) has discussed how the Recovery School District in Louisiana relied on charter schools rather than traditional centralized structures to respond to the challenge of opening, staffing and equipping the damaged and destroyed schools after Katrina.

The interviews suggest that decentralized post-disaster recovery efforts can be quite robust. This, we should note, held true for both decentralized government efforts at post-Katrina emergency disaster management as well as the post-disaster recovery efforts of private citizens and organizations. Arguably, the robustness decentralized bottom-up efforts and the difficulties affecting centralized top-down

recovery efforts suggests that bottom-up rebuilding and recovery efforts might not only be key compliments to centralized top-down efforts but might very well be essential if recovery is to occur.

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Notes:

[1] As of January 2009, 79% of the 198,232 households that existed in Orleans parish were actively receiving mail (Plyer, 2010). While those communities that suffered relatively minor damage had more active households than they did before the storm, some of the hard-hit areas like the Lower Ninth Ward have less than two-thirds of the active households that they did before Katrina (Plyer, 2010). Admittedly, "active households" is an imperfect estimate of recovery. That a household is receiving mail does not signal anything about the size of the household. Similarly, that a household is receiving mail does not mean that the house on that property is fully repaired or livable or that a house even exists. Individuals living in trailers, for instance, would be measured as active households.

[2] See also *Du Bois Review* vol. 3, no. 1 (special volume on Katrina) for a discussion of how institutional, structural and historical racism explains the government's poor response to Katrina as well as Forthergill et al. (1999) for a review of the pre-Katrina literature on race, ethnicity, and disasters.

[3] For these and more demographic data on Broadmoor, see the Greater New Orleans Data Center, http://www.gnocdc.org/orleans/3/63/index.html.

[4] The organization, originally the Broadmoor Civil Improvement Association, is now Broadmoor Improvement Association. See BIA's website for more information about the organization: http://broadmoorimprovement.com/node/21.

[5] More information on BNOB can be found here: http://www.bringneworleansback.org/.

[6] Whenever possible, we protect the identity of the interview subject. Names with the "†" superscript are pseudonyms.

[7] The Clinton Global Initiative and the Carnegie Corporation of New York donated $5 million in 2007 for the rebuilding of the Keller Library and other community foundations. The Surdna Foundation provided a total of $175,000 in 2007 and 2008 to support the efforts of the Broadmoor Development Corporation to assist homeowners in rebuilding (Chamlee-Wright and Storr, 2009a, p. 9).

[8] Find more information at: http://belfercenter.ksg.harvard.edu/project/54/broadmoor_project.html.