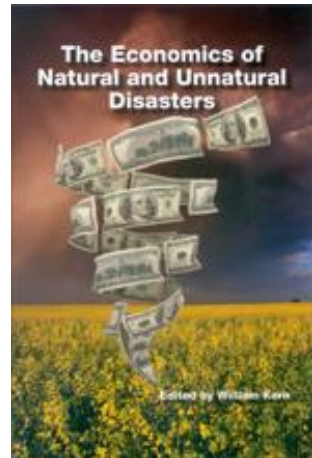

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Private Solutions to Public Disasters: Self- Reliance and Social Resilience

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5

Private Solutions to Public Disasters

Self-Reliance and Social Resilience

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... What has so often excited wonder [is] the great rapidity with which countries recover from a state of devastation; the disappearance, in a short time, of all traces of the mischiefs done by earthquakes, floods, hurricanes, and the ravages of war. An enemy lays waste a country by fire and sword, and destroys or carries away nearly all the moveable wealth existing in it: all the inhabitants are ruined, and yet in a few years after, everything is much as it was before.

—John Stuart Mill (1848)

It is often in the aftermath of the worst calamities of nature and war that the power of human ingenuity and resilience is most clearly demonstrated. John Stuart Mill, writing in 1848, noted that observers were frequently amazed at the rapidity with which inhabitants of a devastated area were able to recover. It is at the very time when public and private infrastructure and formal institutions are at their weakest—following a public disaster—that civil society would be expected to collapse. Yet calamity after calamity has demonstrated the resounding ability of private actors to coordinate recoveries from the most severe of crises.

Unfortunately, not all catastrophes are followed by rapid or even complete recoveries. Slow or incomplete recoveries are attributable in part to the uncontrollable features of the disaster, such as its magnitude or its particular form. Mill argued that large-scale destruction of human capital hinders recovery because local knowledge is essential in coordinating a rapid recovery. A more important factor, especially for

economists and policymakers, is the presence of institutional features that can significantly impede the natural tendency of unfettered people to achieve a complete and rapid recovery following a disaster.

Profit-seeking entrepreneurs are vital to any recovery process. Entrepreneurs must be able to unrestrictedly allocate resources to their most urgent employments, as expressed by customers through prices. Any interference with the structure of prices distorts the signals that entrepreneurs receive, misdirecting or hampering their efforts. Misallocation of resources can literally be a matter of life and death in the immediate aftermath of a natural disaster or war. Price ceilings dampen the ability of profits to induce increased supply of needed goods and services, and they distort the ability of prices to signal consumers to ration and economize scarce resources. Poor policy unnecessarily blocks and inhibits the labor and capital adjustments necessary for a complete and timely recovery by distorting entrepreneurial calculation and preventing entrepreneurs from allocating resources to their most productive uses.

Despite the interference of regulations and uncertainty brought about by government action, humankind has demonstrated a remarkable resilience following a natural or man-made disaster. We argue that this is due to the civilizing and coordinating roles played by civil society. For-profit companies, charities, and churches play a vital role in the recovery process. These organizations have proven to be the first and the best-equipped responders to disasters, jump-starting the recovery process.

COMPOUNDING NATURE'S FURY WITH HUMAN FOLLY

Humankind has shown an amazing resilience when it comes to overcoming nature's fury. Yet when nature's fury is compounded with human folly, this resilience may suffer, eroded by corruption, signal distortions, and regime uncertainty. Ironically, it is often well-intentioned people who create the folly that magnifies nature's fury due to a misunderstanding of the way incentives affect human behavior.

We use the case of Hurricane Katrina to show what types of institutions and policies are robust to natural disasters, allowing for maximum speed and totality of recovery. We show how natural disasters can magnify the adverse effects of poor institutions and policies already in place. Hurricane Katrina hit Louisiana in August 2005, causing over \$100 billion in property damage and 1,800 deaths (Chamlee-Wright and Rothschild 2007), making it one of the worst natural disasters to ever hit the United States. This destruction has been amplified by policies already in place, such as flood insurance and a corrupt levee board; by policies in the immediate aftermath, such as excessive layers of regulation; and in the long term through the creation of instability and uncertainty for investors.

Even though entrepreneurs were burdened with excessive and inhibiting regulations and poor policy, civil society was still able to show an amazing resilience in the aftermath of Hurricane Katrina. Corporations like Wal-Mart and Home Depot, as well as small businesses like gas stations, were able to respond quickly to the devastation, providing necessary goods and services that would allow more businesses and residents to come back to New Orleans. Profit-seeking entrepreneurs and private charities and churches played a central coordinating role in the aftermath of Katrina.

Pre-Katrina

The Army Corps of Engineers was entrusted with overseeing and constructing levees around Louisiana after the Great Flood of 1927, though the federal government had been overseeing the levees since creating the Mississippi River Commission in 1879 (Davis 2000). The Army Corps of Engineers was caught in conflicting layers of bureaucracy, primarily between the demands and desires of the federal government and the local citizens and politicians of Louisiana.

Three years prior to Katrina, McQuaid and Schleifstein (2002) issued a report concluding that New Orleans's inadequate levees would not withstand a direct hit by a hurricane (Horne 2006). John Barry (1998) wrote a book detailing the history of the Mississippi Flood of 1927, especially focusing on the failures of the Army Corps of Engineers and local politicians to take flood control seriously. John McPhee

(1989) wrote a book detailing how the levees would eventually fail; Eric Berger, a science journalist, reported on the devastation that a direct hit on New Orleans would cause (Berger 2001; Brinkley 2006). Despite such warnings from these and other experts, no substantial measures were taken to fortify the weakened and often ill-constructed levees (van Heerden and Bryan 2006). When Katrina hit, the Army Corps of Engineers was managing a largely dilapidated system of levees insufficient to stand up to a storm of the magnitude of Katrina. Not only did the levees lack structural integrity, but the construction was also persistently behind schedule: upgrades had been pushed back as long as 13 years, leaving one section of flood work still unfinished when Katrina hit (Horne 2006).

The poor state of the levees was primarily due to the corruption on the levee board.¹ Adamantly and successfully resisting the advice of the Army Corps of Engineers, the levee board fortified frontal protection for the levees instead of focusing on an extensive network of pumps up to several miles inland (Horne 2006). This frontal protection—a system of floodgates—came in at one-third the cost of the favored pump and levee arrangement. However, it required continuous maintenance by the levee board, a task board members were not willing to commit themselves to.

Local politicians were able to funnel federal money earmarked for levee renovation and construction to benefit special-interest groups. The shipping industry successfully lobbied for harbor upgrades and canal dredging projects from this federal money, both projects that actually increased the chances of hurricane damage (Brinkley 2006). In addition, local politicians who controlled the Levee Board and the Sewage and Water Board resisted undertaking costly and unpopular but highly recommended projects in order to bolster voter support by devoting resources to more immediate problems facing New Orleans, such as corruption, schooling, and urban infrastructure problems (Brinkley 2006; Cooper and Block 2006).

With the levees standing 14 feet above the average water level of Lake Pontchartrain, locals believed themselves safe as long as the city pumps were working to take care of any spillovers. This belief, however, was predicated on the assumption that the levees would hold up. Charitable organizations, such as the Red Cross, were aware of the dan-

ger that a large storm posed to these insufficient levees and refused to operate within the flood zone. The condition of the levees was bad enough that a significant number of the personnel in charge of managing the levees evacuated prior to the storm, leaving the levees understaffed (Horne 2006). Though the initial break in the levee was only 20 feet and could have been shored up with the heavy equipment and sandbags owned by the levee agency, levee employees did not respond and the break turned into a 200-foot gap.

While local politicians were shirking their duty to maintain the system of levees, state and federal government officials were actively encouraging homeowners and businesses to reside in the disaster-prone areas threatened by the dilapidated levees. Subsidized flood insurance and the expectation of postdisaster relief brought about what economists call moral hazard problems in disaster-prone areas. Moral hazard problems occur when people are protected from incurring the full cost of their choices and thus make worse and more costly decisions than they would absent such protection. Lowering the cost of residing in areas with high flood and wind risk artificially increases the number of people and the amount of property in disaster-prone areas (Sutter 2008). In an unmolested market, increased insurance rates and the expectation of incurring storm damages would force residents to account for and bear the cost of living in disaster-prone areas.

Furthermore, state governments have been notoriously resistant to letting insurance companies mandate mitigation efforts by customers in these high-risk areas. When cost-effective preventive measures are necessary in order to obtain insurance, an incentive exists to build more structurally sound buildings. Even such simple measures as installing window shutters can significantly reduce the probability of wind damage.

State governments interfere with insurance companies' risk assessments and premiums for various types of mitigation in two ways. First, several states in disaster-prone areas require state approval of mitigation discounts, allowing competing insurance companies and politically motivated elected officials to second-guess insurance companies' decisions. Second, some states, such as Louisiana, Florida, and North Carolina, require discounts for certain mitigation practices. Since insurance companies already have the incentives to offer discounts for

effective mitigation practices, government interference, when binding, requires allocation of resources to mitigation measures that have not been proven effective. Laws that require insurance companies to fund sham mitigation practices stem from political favors both to interested parties and to genuinely concerned politicians who do not have a full understanding of insurance markets.

New Orleans's long tradition of special-interest legislation, in addition to leading to poor levee maintenance and construction, also shackled entrepreneurs' abilities to respond to consumers' needs in the wake of the havoc created by Katrina. In postdisaster recoveries, such restrictions prove extraordinarily burdensome for two primary reasons. First, the bureaucratic process of applying for permits, inspections, and assistance is especially difficult when many public buildings are damaged and public employees displaced. Filling out the paperwork required for engaging in various forms of business activities is a daunting process even when public infrastructure is not shut down or understaffed. Second, as John Stuart Mill pointed out, the return of people with local human capital is essential to the recovery process. Entrepreneurs, vital for recovery, may become frustrated by a complicated bureaucratic process and may simply choose to not return following a disaster. At best, regulatory processes only slow down and prevent entrepreneurs from putting their human capital to immediate use. In order to attract residents and other business owners back to the affected areas, an initial set of enterprising business owners must return and provide basic goods and services. Residents and other business owners waiting for these basic goods and services to be available before returning are, over time, more likely to establish themselves in the cities they took refuge in, making it costlier to return.

Occupational licensing, granted to construction unions to artificially increase wages, restricted construction experts from other states from setting up shop in the disaster-stricken areas to jump-start the rebuilding process. The six-month waiting period mandated for a construction permit was not rescinded in the wake of the damage created by Katrina. To its credit, the city of New Orleans did suspend inspections on construction projects, allowing, for instance, carpenters and electricians to inspect their own work. Historic preservation regulations also inhibited rebuilding in New Orleans. Draconian preservation laws were applied

in historic districts, making it difficult for contractors to quickly rebuild and restore historic buildings affected by severe flooding.

Preexisting restrictions on the adult-to-child ratio for child care centers were also not relaxed following the storm (Chamlee-Wright 2008a). To initiate progress toward recovery, entrepreneurs and business owners needed places offering care and supervision for their children. Even two years after Katrina hit, only 94 of 275 day care centers in New Orleans had reopened. With so many damaged buildings and missing employees, the adult-to-child capacity restrictions meant that many parents were unable to focus completely on recovery efforts. The numerous residents who fled with their children to cities such as Houston and Atlanta found it hard to take on full-time employment due to similar restrictions in those cities.

Zoning regulations and building codes also shackled entrepreneurs in their efforts to speedily reopen stores to offer basic services and goods. The opening of a health clinic was delayed by nearly six months because it was located in a residential zone and had building code violations such as a handicap ramp with hand rails on only one side. Similarly, a laundry had to wait weeks for an inspection after the building was completed and ready to open up.

Layers of regulation and profit windfalls from postdisaster relief create an institutional environment ripe for corruption. In 2004, Louisiana was ranked fortieth out of 50 states in the Pacific Research Institute's Economic Freedom of the States Index (Huang, McCormick, and McQuillan 2004) and had relatively high costs of conducting business compared to other states. In addition, Louisiana was ranked the third most corrupt state in the nation in 2004 (Corporate Crime Reporter 2004).

During Katrina

The folly already in place prior to Katrina, which drastically increased the amount of damage the storm caused, was also compounded with folly during the storm and its immediate aftermath. While most economists are familiar with the concept of the tragedy of the commons, a term coined by the biologist Garrett Hardin, most are not familiar with the tragedy of the anticommons. The tragedy of the anticommons oc-

curs when several government agencies have the ability to regulate and control a common area, creating unnecessary, and often repetitive and even conflicting, layers of bureaucracy. Additional layers of bureaucracy, especially following a disaster, can cost lives by slowing down the response times of entrepreneurs. In addition, complicated layers of bureaucracy, especially when combined with political windfalls from disaster relief, drastically increase the chances of venality.

The relief efforts for Hurricane Katrina orchestrated by FEMA have been notoriously plagued by corruption and abuse. In fact, according to the Government Accountability Office, the cost of corruption and abuse for Hurricanes Katrina and Rita could reach \$1.4 billion (Kutz and Ryan 2006). In a study on natural disasters and corruption, Leeson and Sobel (2008) found that every additional \$1 per capita spent on disaster relief by FEMA increases corruption in the average state by up to 2.5 percent, due to the windfalls created by the programs. This suggests that the states along the Gulf Coast might be notoriously corrupt precisely because they are frequently hit by natural disasters. Leeson and Sobel estimate that eliminating FEMA disaster relief would reduce corruption by more than 20 percent in the average state. In a separate article, Leeson and Sobel (2007) trace the origins of the corruption to the time-sensitive nature of disaster relief; increased oversight shows little promise in curbing this corruption because, in their words, “protocol will take a backseat when disasters actually strike.”

When infrastructure and normal modes of communicating and organizing activity are slow, incomplete, and impeded by interference following a public disaster, the need to allow market prices to adjust to communicate information to the relevant actors becomes even more important. Hayek (1945) discusses the heavily dispersed nature of knowledge and the importance of a freely fluctuating price system as the most efficient system to coordinate economic activity across an array of activities because of its ability to convey the specific knowledge of time and place to the relevant economic actors. With so many needs after a natural disaster, it is difficult, especially for an altruistic government agent operating in the field, to decide whose and what needs should be met first. Sobel and Leeson (2007) find that while private actors are able to respond to transient, decentralized information in a

timely manner following a disaster, public officials are forced to make decisions with, at best, scanty and outdated information.

Price controls following a disaster are known for distorting price signals, which is counterproductive at a time when those signals are most needed to coordinate the allocation of resources to their most urgent employment. William Carden (2009) noted that emergency situations are inherently chaotic and that a well-functioning unmolested price system can significantly reduce the chaos. Price ceilings discourage economical consumption and take away the profit-seeking motive for entrepreneurs to find innovative ways of allocating resources where the demand is highest.

Post-Katrina

Continuous government interference in the market, policy reversals, and varying responses to disasters create uncertainty for market actors. This uncertainty may inhibit entrepreneurial investment in current profit opportunities. Robert Higgs (1997) calls this process in which government adversely affects investment by not credibly adhering to a set policy *regime uncertainty*. In the aftermath of a disaster, the stymieing effect of regime uncertainty on investment is magnified, as it paralyzes the entrepreneurship and investment necessary for a full and rapid recovery. Market actors, left in the dark concerning the nature and timing of goods and services to be provided by government agencies, cut back on much-needed investment. Government regulations, such as price controls, distort the signaling process and prevent the market adjustment that is at the very heart of economic efficiency.

By focusing on standard postdisaster recovery procedures, public officials disregarded the necessary role of private actors in the recovery process (Chamlee-Wright and Storr 2008a). Focusing on procuring more federal dollars, imposing stronger regulations, and periodically implementing new recovery plans, policymakers intruded on the recovery process, preventing entrepreneurs from rapidly returning to their businesses. In a structured set of neutral interviews, residents named barriers erected by government policies and programs, in particular those intended to assist redevelopment, as the biggest challenge they had faced since returning (Chamlee-Wright and Storr 2007).

Despite these needless barriers, entrepreneurs exercised persistence and creativity to coordinate the start of a recovery. Population estimates for the New Orleans MSA show that its total population reached 86 percent of pre-Katrina levels by July of 2008 (GNOCDC 2008), as shown in Table 5.1.² Although the area remains far short of a full recovery, especially in the parishes most severely hit by Katrina, the data nonetheless reflects an impressive display of resiliency. This resilience, however, is largely due to private-sector responses, and not formulaic public-sector responses (Boettke et al. 2007). In fact, those areas where public-sector influence undermined private-sector response times show the least recovery progress.

SELF-RELIANCE AND SOCIAL RESILIENCE

According to Nobel Laureate Thomas Schelling, the primary problem residents of New Orleans faced in the recovery process was that of coordinating expectations (Gosselin 2005). If residents expected people to come back and work to bring about a recovery, then they would. On the other hand, if residents did not expect others to come back, they in fact would not come back, and the human capital necessary for recovery would never materialize. Private corporations, such as Wal-Mart and Home Depot, and determined small business owners were able to solve Schelling's coordination problem by being the first movers. By quickly getting their stores reopened and their employees back in town, these businesses were able to provide the basic goods and services that were necessary for other residents and business owners to come back to New Orleans as well.

Through in-depth interviews she conducted in New Orleans, Emily Chamlee-Wright (2007; 2008b) found that private actors played a large role in coordinating a recovery through mutual assistance, commercial cooperation, and private reestablishment of community resources. Residents with house damage and business owners who found their stores damaged or looted would not have been able to return immediately after Katrina to jump-start the recovery process without mutual assistance. Returning residents were able to coordinate a return with

Table 5.1 Population by Parish, New Orleans (LA) MSA

	Jefferson	Orleans	Plaquemines	St. Bernard	St. Charles	St. John	St. Tammany	Total
July 2005	450,848	455,046	28,565	64,890	50,116	45,568	217,367	1,312,400
July 2006	422,222	210,768	21,610	13,924	51,868	47,647	223,863	991,902
July 2007	440,339	288,113	21,597	33,439	51,892	47,678	226,263	1,109,411
July 2008	436,181	311,853	21,276	37,722	51,547	46,994	228,456	1,134,029

SOURCE: GNOCDC (2008).

others by committing to exchanging their different skills and remaining resources. A lumber store owner was able to trade room in his largely undamaged house for assistance in rebuilding his store, which had been badly damaged and looted. Chamlee-Wright also found that commercial entities showed novel and extensive cooperation with each other in order to signal to evacuees that New Orleans would recover and that basic goods and services would be available to returning residents looking to start the recovery process. Companies were willing to offer harder-hit companies generous terms of credit and even free supplies in order to help these other businesses open up to attract more residents back. Churches, such as the Mary Queen of Vietnam Catholic Church, were able to reestablish community services vital for attracting back the local knowledge necessary for a complete and timely recovery.

The *Doux-Commerce Thesis*, put forth by the Scottish Enlightenment thinkers, holds that commerce plays a key role in civil society: it is the very act of trading that civilizes a society. Through the process of exchange we find mutually beneficial margins that encourage cooperation, and seeking to establish an honest reputation to facilitate future transactions gives business owners and their customers a motive to exhibit desirable moral traits. In the chaotic aftermath of a disaster like Katrina, this civilizing role of reestablishing commerce is necessary for the recovery process.

Although hindered by policies that exacerbated the toll of Katrina, private companies and organizations undertook efforts that significantly eased the severity of the disaster. Horwitz (2009) found that big-box retailers, such as Wal-Mart and Home Depot, operating under the knowledge-generating and incentive-inducing influences of competition, were able to respond significantly faster than FEMA. The private companies managed to get supplies to where they were needed almost directly following the storm. Before Hurricane Katrina even made landfall, both chains had preemptively placed trucks, drivers, and supplies at strategic staging points, out of danger but close enough to rush in supplies right after the storm passed. Wal-Mart, using its efficient supply chain, was able to get all but 15 of 89 damaged stores up and running within 10 days, supplying needed items to Katrina survivors. Within the first three weeks after the storm hit, Wal-Mart delivered almost 2,500 truckloads of supplies to the affected areas, while Home Depot deliv-

ered over 800 truckloads. Both organizations left local store managers with discretion so they could respond to local emergency situations. Several Wal-Mart managers were commended for providing free supplies to devastated survivors of the storm.

Churches and private charity organizations also played an important role in the recovery process following Hurricane Katrina. Chamlee-Wright and Storr (2008b, 2009) do an in-depth cultural analysis of a Vietnamese-American community in New Orleans East, finding that the Mary Queen of Vietnam Catholic Church played a central role in the revival of the neighborhood surrounding the church. One of the most surprising features of their study is that the church is located in one of the most damaged areas of New Orleans, one that the Urban Land Institute claimed had little chance of recovery. Within a few weeks after the storm, parishioners were returning and taking the initial steps towards recovery. An astounding 90 percent of the residents around the church had returned by summer 2007, and 70 of the 75 Vietnamese-owned area businesses were up and running. Even compared to less-damaged areas, this was a remarkable recovery.

CONCLUSION

The destruction and upheaval caused by nature's fury are often staggering. Throughout history, unfettered people have been able to overcome the worst tragedies of nature and war, displaying the amazing resilience and ingenuity of humankind. However, when governments impede the very process that allows the rapidity and completeness of recovery, civil society must overcome human folly as well as nature's fury. Placing additional regulatory obstacles and destabilizing programs in the way of entrepreneurs severely compromises the ability of private actors to coordinate a complete and rapid recovery.

It was civil society that forged the way in coordinating a post-Katrina recovery. Entrepreneurs were able to overcome the obstacles created by the hurricane itself and by problematic government regulation in order to provide the basic goods and services necessary to jump-start the recovery process. It was the initial commitments under-

taken by businesses and private organizations, as well as the civilizing influence of the reestablishment of commerce, that attracted residents back to New Orleans, demonstrating, once again, the amazing resilience of civil society in overcoming nature's fury.

Notes

1. This corruption persisted even after Katrina hit, when the levee board president used the tragedy of Katrina to hand out lucrative contracts to family members, including his wife's cousin and her son, and even cut himself a check that was \$98,000 above the normal stipend (Horne 2006).
2. The parishes of Jefferson, Orleans, and Plaquemines dispute the 2008 figures, claiming that the U.S. Census Bureau has understated these numbers (GNOCDC 2008). If undisputed 2007 figures are used instead of the 2008 figures, then the total population of the New Orleans MSA had reached 85 percent of pre-Katrina levels by July 2007.

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