Government Executive

Six Lessons From Katrina Loom Even Larger 10 Years Later

By Donald F. Kettl, Howard Kunreuther, and Ronald J. Daniels

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In December 2005, just three months after Katrina savaged the Gulf Coast, we edited *On Risk and Disaster,* a book on the key lessons that the storm so painfully taught. The book was very different from most of the post-mortems that focused on the country's lack of preparedness for the storm's onslaught. It focused sharply on how to reduce the risk of future disasters—and how to understand how to help those who suffer most from them.

One of the most important findings highlighted by the book's 19 expert contributors was that the storm affected lower-income residents far more than others. Reducing the exposure to potential damage before disasters occur, especially in the most hazard-prone areas, is one of the most important steps we can take. To achieve this objective in low-income areas residents often need help to invest in measures to reduce their losses. Failing to learn these lessons will surely lead to a repeat of the storm's awful consequences.

Now, 10 years after Katrina struck, six lessons from the book loom even larger.

1. Disasters classified as low-probability, high-consequence events have been increasing in likelihood and severity.

From 1958 to 1972, the number of annual presidential disaster declarations ranged between eight and 20. From 1997 through 2010, they ranged from 50 to 80. The National Oceanic and Atmospheric Administration reported that the number of severe weather events—those that cause $1 billion in damage or more—has increased dramatically, from just two per year in the 1980s to more than 10 per year since 2010. That's likely to continue.

2. Most individuals do not purchase insurance until after suffering a severe loss from a disaster—and then often cancel their policies several years later.

Prior to the 1994 Northridge earthquake in California, relatively few residents had earthquake insurance. After the disaster, more than two-thirds of the homeowners in the area voluntarily purchased coverage. In the years afterwards, however, most residents dropped their insurance. Only 10 percent of those in seismically active areas of California now have earthquake insurance, even though most people know that the likelihood of a severe quake in California today is even higher than it was 20 years ago. Moreover, most homeowners don't keep their flood insurance policies. An analysis of the National Flood Insurance Program in the United States revealed that homeowners typically purchased flood insurance for two to four years but, on average, they owned their homes for about seven years. Of 841,000 new policies bought in 2001, only 73 percent were still in force one year later and, after eight years, the number dropped to just 20 percent. The flood risk, of course, hadn't changed; dropping the policies exposed homeowners to big losses if another storm hit.

3. Individuals aren't very good at assessing their risk.

A study on flood risk perception of more than 1,000 homeowners who all lived in flood-prone areas in New York City examined the degree to which people living in these areas assessed their likelihood of being flooded. Even allowing a 25 percent error margin around the experts' estimates, most people underestimated the risk of potential damage; a large majority of the residents in this flood-prone area (63 percent) underestimated the average damage a flood would cause to their house. It is likely that "junk science," including claims that climate change isn't real, leads many citizens to problems in assessing the risks they face.

4. We need more public-private partnerships to reduce the costs of future disasters.

Many low-income families cannot afford risk-based disaster insurance and often struggle to recover from catastrophes like Katrina. One way to reduce future damages from disasters would be to assist those in hazard-prone areas with some type of means-tested voucher if they invest in loss reduction measures, such as elevating their home or flood proofing its foundation. The voucher would cover both a portion of their insurance premium as well as the annual payments for home improvement loans to reduce their risk. A program such as this one would reduce future losses, lower the cost of risk-based insurance and diminish the need for the public sector to provide financial disaster relief to low-income families.

5. Even if we build stronger public-private partnerships, individuals expect government help if they suffer severe damage.

Just before this spring's torrential Texas rains, there was a huge battle in the Texas state legislature about whether local governments ought to be allowed to engage in advance planning to mitigate the risks from big disasters. Many of the forces trying to stop that effort were among the first to demand help when floodwaters devastated the central part of the state. Even the strongest believers in small government expect help to come quickly in times of trouble. We are a generous country, and we surely don't want that to change. But jumping in after disasters strike is far more expensive than taking steps in advance to reduce risks. Everyone agrees that the cost curve for disaster relief is going up too fast and that we need to aggressively bend it back down.

6. Hurricanes tend to grab our attention—but there are other big risks that are getting far less attention.

Hurricanes are surely important, but winter storms, floods and earthquakes are hugely damaging, too. Too often, we obsess over the last catastrophe and don't see clearly the other big risks that threaten us. Moreover, when big disasters happen, it really doesn't matter what caused the damage. Coast Guard Adm. Thad Allen, who led the recovery effort after Katrina, called the storm "a weapon of mass destruction without criminal intent." The lesson is that we need to be prepared to help communities bounce back when disasters occur, whatever their cause; to help them reduce the risk of future disasters; and to be alert to those who suffer more than others.

The unrest that rocked Baltimore following Freddie Gray's death reminds us that Adm. Allen's lesson reaches broadly. The riots severely damaged some of the city's poorest neighborhoods and undermined the local economy, with an impact just as serious as if the area had been flooded by a hurricane. Many of the same factors that bring in the government after natural disasters occurred here as well: a disproportionate impact on low-income residents, most of whom played no part in causing the damage; the inability to forecast when a random act, whether a storm surge or a police action, could push a community into a downward spiral; and the inability of residents to take steps before disasters happen to reduce the damage they suffer.

Big risks command a governmental response. Responses after disasters, whatever their cause, cost more than reducing risks in advance. Often, the poor suffer the most. These issues loom even larger in the post-Katrina years.

Natural disasters have become more frequent and more costly. We need to develop a much better strategy for making communities more resilient, especially by investing—in advance—in strategies to reduce losses. We need to pay much more attention to who bears the biggest losses when disasters strike, whatever their cause. And we need to think about how to weave integrated partnerships involving both government and the private and nonprofit sectors. And we need to understand that natural disasters aren't the only ones our communities face.

Sensible strategies will require a team effort, involving insurance companies, real estate agents, developers, banks and financial institutions, residents in hazard-prone areas as well as governments at the local, state and federal levels. Insurance premiums that reflect actual risks coupled with strong economic incentives to reduce those risks in advance, can surely help. So, too, can stronger building codes and land use regulations that reduce the exposure to natural disasters.

If we've learned anything in the decade since Katrina, it's that we need to work much harder to understand the risks we face, on all fronts. We need to think about how to reduce those risks and to make sure that the least privileged among us don't suffer the most. Thinking through these issues after the fact only ensures that we struggle more, pay more, and sow the seeds for even more costly efforts in the future.

For more details on the lessons learned from Hurricane Katrina, you can turn to the paper by Howard Kunreuther "The Role of Insurance in Reducing Losses from Extreme Events: The Need for Public-Private Partnerships" (*The Geneva Papers*, 2015).

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