

# CSIS-Pennington Family Foundation Series on Community Resilience

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## *White Paper on U.S. Disaster Preparedness and Resilience: Recommendations for Reform*

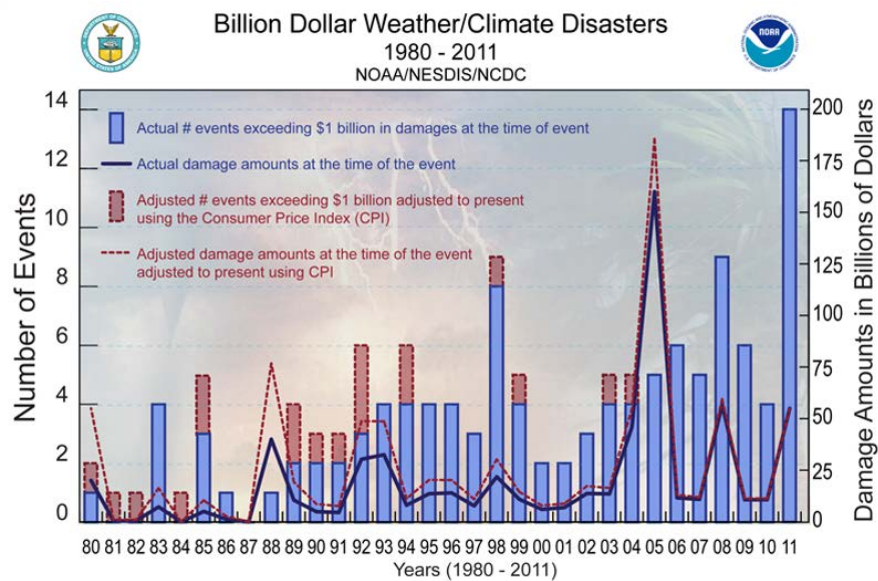
By Stephanie Sanok Kostro, Ashley Nichols, and Abigail Temoshchuk

## U.S. Disaster Preparedness and Resilience: Recommendations for Reform

Stephanie Sanok Kostro, Ashley Nichols, and Abigail Temoshchuk

### Introduction

In recent years, the United States has faced a growing number of severe natural disasters<sup>1</sup>, presenting a variety of challenges for the nation – spanning the spectrum from federal to state to municipal and community levels – and its disaster response, relief, and recovery architecture. On average, the United States experiences ten severe weather events per year exceeding one billion dollars in damage, compared to an annual average of only two such events throughout the 1980s.<sup>2</sup>



Source: “Extreme Weather 2011”, National Oceanic and Atmospheric Administration, <http://www.noaa.gov/extreme2011/compare.html>

This paper reflects discussions from the *CSIS-Pennington Family Foundation Series on Community Resilience*, which was made possible through the generosity of the Irene W. and C.B. Pennington Foundation with support from Walmart.

<sup>1</sup> Indicating a disaster inflicting at least \$1 billion in damage.

<sup>2</sup> A. Smith and R. Katz, “U.S. Billion-dollar Weather and Climate Disasters: Data Sources, Trends, Accuracy and Biases” *Natural Hazards*, June 2013, Vol. 67, Iss. 2, pp. 387-410, [www1.ncdc.noaa.gov/pub/data/papers/smith-and-katz-2013.pdf](http://www1.ncdc.noaa.gov/pub/data/papers/smith-and-katz-2013.pdf)

In addition, the costs of response, relief, and recovery efforts associated with these kinds of natural disasters have increased considerably over time. Recent reports indicate that from 2010 to today, the U.S. federal government has spent an average of approximately \$85 billion per year in response to severe weather events. This figure is more than double average yearly spending on such events in 2000-2009.<sup>3</sup> While there is significant debate about the reason for this increase, some experts have noted that an overall increase in the number of disasters, an increase in their severity, and an increase in the amount of vulnerable infrastructure may be factors.<sup>45</sup>

Given the growing cost of disaster response efforts, the United States should consider steps that would enhance the nation's disaster preparedness and resilience. By emphasizing planning, partnerships, and capabilities development that improve preparedness and resilience, the United States may be able to mitigate some of the effects and costs of natural disasters.<sup>6</sup> Meaningful progress will require reform at several levels, including but not limited to changes to federal executive branch policy, additional action by the U.S. Congress, and closer partnerships and cooperation between the public and private sectors.

The recommendations are the product of a dialogue hosted by the Center for Strategic and International Studies' Homeland Security and Counterterrorism Program and the Irene W. and C.B. Pennington Foundation, who are partners – with support from Walmart – in the *CSIS-Pennington Family Foundation Series on Community Resilience*. Launched in September 2012, this series has proven to be a valuable forum for government officials, subject matter experts, academics, philanthropists, nongovernmental organizations, and business and community leaders to discuss strengthening the resilience of communities in disaster-prone areas. Each of these groups offers a unique perspective – whether from a philanthropic, business, or policy point of view – and unique capabilities. Reflecting thoughts, findings, and viewpoints gleaned from *CSIS-Pennington Family Foundation Series* events and discussions, these recommendations provide guidance for those officials who want to make meaningful forward progress to bolster U.S. planning, partnerships, and capabilities to address the real, localized, and oftentimes devastating effects of natural disasters.

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<sup>3</sup> D. Weiss and J. Weidman, “Disastrous Spending: Federal Disaster-Relief Expenditures Rise amid More Extreme Weather”, April 29, 2013, [www.americanprogress.org/issues/green/report/2013/04/29/61633/disastrous-spending-federal-disaster-relief-expenditures-rise-amid-more-extreme-weather/](http://www.americanprogress.org/issues/green/report/2013/04/29/61633/disastrous-spending-federal-disaster-relief-expenditures-rise-amid-more-extreme-weather/).

<sup>4</sup> “Severe Weather in North America: Executive Summary”, Munich Re, 2012, [www.munichreamerica.com/pdf/ks\\_severe\\_weather\\_na\\_exec\\_summary.pdf](http://www.munichreamerica.com/pdf/ks_severe_weather_na_exec_summary.pdf).

<sup>5</sup> M. Bandyk, “Why Natural Disasters are More Expensive – But Less Deadly”, *U.S. News and World Report*, March 24, 2010, [money.usnews.com/money/business-economy/articles/2010/03/24/why-natural-disasters-are-more-expensivebut-less-deadly](http://money.usnews.com/money/business-economy/articles/2010/03/24/why-natural-disasters-are-more-expensivebut-less-deadly).

<sup>6</sup> Weiss and Weidman.

## Executive Branch Actions

Given the vital role played by federal agencies such as the Federal Emergency Management Agency (FEMA) and others, natural disaster-related reforms to executive branch policy and activities are a key component of increasing disaster preparedness and resilience. Relevant executive branch agencies have revised their disaster policies in recent years, reflecting in large part important lessons learned from Hurricane Katrina and other response and recovery efforts.<sup>7</sup>

Fortunately, the executive branch has an opportunity to improve disaster preparedness and resilience through the implementation of relatively small but pivotal reforms. Successful policy reforms will also require a firm set of goals, providing a lens through which changes can be outlined and implemented. *CSIS-Pennington Family Foundation Series* events and discussions have generated several practical, actionable recommendations for the U.S. Government's executive branch:

- Use the Department of Homeland Security's Quadrennial Homeland Security Review (QHSR) process and report to establish cost reduction as a central goal;
- Establish a framework for the suspension or easing of various federal policies in the wake of a disaster; and
- Increase collection, analysis, and distribution of disaster-related data and information to inform development of preparedness and resilience policies.

*Use the QHSR process and report to establish cost reduction as a central goal*

First, an important tool available to the Department of Homeland Security is the upcoming QHSR process, which will culminate in a report to Congress by December 2013. Legislators specially mandated the Department to undertake a QHSR as “a comprehensive examination of the homeland security strategy of the nation, including recommendations regarding the long-term strategy and priorities of the nation for homeland security and guidance on the programs, assets, capabilities, budget, policies, and authorities of the Department.”<sup>8</sup>

As the Department of Homeland Security considers the content of the 2013 QHSR report, cost reduction is important goal which could serve to boost effective preparedness and resilience. In a fiscally constrained environment, finding ways to better prepare for and recover from disasters in a manner that is cost-efficient is all the more important.<sup>9</sup> The past few years have seen a marked

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<sup>7</sup> Government Accountability Office, “Actions Taken to Implement the Post-Katrina Emergency Management Reform Act of 2006”, November 21, 2008, [www.gao.gov/new.items/d0959r.pdf](http://www.gao.gov/new.items/d0959r.pdf).

<sup>8</sup> Title 6, United States Code, “Quadrennial homeland security review” (Chapter 1, Subchapter VII, Sec 347), [www.gpo.gov/fdsys/pkg/USCODE-2011-title6/html/USCODE-2011-title6-chap1-subchapVII-sec347.htm](http://www.gpo.gov/fdsys/pkg/USCODE-2011-title6/html/USCODE-2011-title6-chap1-subchapVII-sec347.htm).

<sup>9</sup> C. Fugate, “Written testimony of Federal Emergency Management Agency Administrator Craig Fugate for Senate Committee on Appropriations, Subcommittee on Homeland Security hearing titled ‘Rebuilding after Hurricane Sandy’”, March 1, 2013, [www.dhs.gov/news/2013/03/01/written-testimony-fema-administrator-craig-fugate-senate-committee-appropriations](http://www.dhs.gov/news/2013/03/01/written-testimony-fema-administrator-craig-fugate-senate-committee-appropriations).

increase in the funds required for communities to recover; in fact, 2012 was one of the most expensive years for weather-related disasters in recent history.<sup>10</sup> At the same time, funding for FEMA may continue to decrease: the President requested \$13.45 billion for FEMA in Fiscal Year 2014 (FY14), a slight decrease from the \$13.56 billion requested in FY13.<sup>11</sup><sup>12</sup> With the continued potential for future major disasters, FEMA and other relevant executive branch agencies must seek new ways to improve efficiency and reduce costs. The QHSR process and report can serve to identify overlapping or inefficient activities that can be restructured as well as new preparedness and resilience initiatives that may leverage efficiencies and reduce costs associated with disasters.

### *Establish a framework to suspend or ease federal policies*

As useful as new policies may be, the development of a clear framework for temporarily suspending or altering certain federal policies in the wake of disasters may also serve a valuable purpose. Various policies have, at times, served to hinder disaster recovery efforts. In some instances, such as after Hurricane Katrina, federal agencies have waived certain rules and regulations, such as those requiring a bidding process for federal contracts, as a form of aid to the affected region.<sup>13</sup> However, such waivers occur ad hoc, creating uncertainty and thus contributing to confusion and inefficiency as states, municipalities, communities, companies, and individuals wonder, “Will rules and regulations be waived? If so, which ones, by whom, and for how long?”

Executive agencies should consider forming a temporary interagency task force to create a standardized framework and clear guidelines for the suspension of select policies during a disaster situation. For example, in the wake of flooding, it could prove useful to allow the suspension of security restrictions governing the transportation of chlorine. This would allow

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<sup>10</sup> National Climate Data Center, “Preliminary Info on 2012 U.S. Billion-Dollar Extreme Weather/Climate Events”, National Oceanic and Atmospheric Administration, [www.ncdc.noaa.gov/news/preliminary-info-2012-us-billion-dollar-extreme-weatherclimate-events](http://www.ncdc.noaa.gov/news/preliminary-info-2012-us-billion-dollar-extreme-weatherclimate-events).

<sup>11</sup> U.S. Department of Homeland Security, “Budget-in-Brief: Fiscal year 2014”, [www.dhs.gov/sites/default/files/publications/MGMT/FY%202014%20BIB%20-%20FINAL%20-508%20Formatted%20%284%29.pdf](http://www.dhs.gov/sites/default/files/publications/MGMT/FY%202014%20BIB%20-%20FINAL%20-508%20Formatted%20%284%29.pdf).

<sup>12</sup> Federal Emergency Management Agency, “Summary of FY Budget Estimates by Appropriations without Emergency Funding”, Department of Homeland Security, [www.fema.gov/pdf/about/budget/11\\_federal\\_emergency\\_management\\_agency\\_dhs\\_fy13\\_cj.pdf](http://www.fema.gov/pdf/about/budget/11_federal_emergency_management_agency_dhs_fy13_cj.pdf).

<sup>13</sup> A partial list of policy and regulation waivers or suspensions after Hurricane Katrina includes: President Bush’s suspension of the David-Beacon Act, which regulates workers’ pay on federal contracts, from September 8 to November 8, 2005; Internal Revenue Service allowing taxpayers to file late tax returns and payments from August 30 to October 31, 2005; Environmental Protection Agency’s suspension of fuel and emissions regulations from August 30 to September 15, 2005; Department of Transportation’s easing of restrictions on trucker hours; Department of Homeland Security’s suspension of requirements that vessels carrying merchandise, particularly petroleum, between U.S. ports be owned by U.S. citizens from September 9 to September 19, 2005. (C. Copeland, “Regulatory Waivers and Extensions Pursuant to Hurricane Katrina”, CRS Report for Congress, September 13, 2005, [www.au.af.mil/au/awc/awcgate/crs/rs22253.pdf](http://www.au.af.mil/au/awc/awcgate/crs/rs22253.pdf).)

water services, including the provision of large amounts of drinkable water, to be restored in a timelier manner.<sup>14</sup>

Of course, no two disasters are exactly the same. Thus, any policy framework that allows for waivers of rules and regulations should include, at the very least, a set of generic, standardized exceptions that can provide relief for the majority of disasters as well as a set of supplemental, case-by-case exceptions that can be adapted to specific communities or disasters. Such a framework would serve to reduce barriers to recovery for communities and contribute to a more resilient nation.

#### *Increase collection, analysis, and distribution of disaster-related data and information*

To better support preparedness and resilience efforts, we further recommend that executive branch agencies, such as FEMA, identify and analyze key areas for improvement. To do so, FEMA and others will need better information on which to base their analysis. Past disasters provide a natural opportunity for collecting and analyzing data, which can then be used as a reference for the future. An example of metrics that could be used to develop such analysis include the number of casualties, number of individuals and time spent without shelter, water, or power water, and how rapidly various resources were mobilized. Agencies could evaluate the cost of each disaster to the federal, state, and local governments, the amount and types of insurance claims, and the involvement of non-public sector organizations.

Once this data is identified and collected, executive branch agencies should use retrospective analysis to develop a comprehensive list of the gaps and hurdles faced during past disaster efforts. While FEMA has attempted to conduct analysis in the past through its Gap Analysis Program and Cost to Capabilities initiative, these were intended to identify specific readiness capabilities and shortfalls.<sup>15</sup> While these initiatives may provide some valuable lessons regarding frameworks and metrics, broader analysis is required to explore larger issues of policy.

Specifically, agencies should work to identify critical types of policies and activities that support disaster preparedness and resilience; prioritize those policies and activities in order of value, effectiveness, timeliness, and cost; and then develop metrics to assess future progress in those activities. For example, the list of trials faced by Hurricane Katrina victims, agencies, and partners (e.g., non-governmental organizations, volunteer organizations, private sector entities) can be compared to trials resulting from Hurricane Sandy. Such a comparison would allow executive agency officials to determine which challenges have not been addressed by policy changes in recent years. Finally, the executive branch should create, and keep updated, a lessons-

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<sup>14</sup> National Infrastructure Advisory Council, “Framework for Dealing with Disasters and Related Interdependencies: Final Report and Recommendations”, July 14, 2009, [www.dhs.gov/xlibrary/assets/niac/niac\\_framework\\_dealing\\_with\\_disasters.pdf](http://www.dhs.gov/xlibrary/assets/niac/niac_framework_dealing_with_disasters.pdf).

<sup>15</sup> “FEMA’s Preparedness for the Next Catastrophic Disaster – An Update”, Department of Homeland Security, Office of Inspector General, September 2010, [www.oig.dhs.gov/assets/Mgmt/OIG\\_10-123\\_Sep10.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_10-123_Sep10.pdf).

learned database that contains comparable data across natural disasters. While FEMA maintains a website intended to share information on recovery lessons learned, this resource is limited and only provides access to a handful of articles and third-party resources.<sup>16</sup> By creating a comprehensive, interactive database allowing comparison and analysis across a variety of factors, FEMA could prove an invaluable tool in guiding executive branch policy, providing a useful baseline of information that informs future reform.

In addition to data identification, collection, and analysis, research focused on community resilience could better inform future policy and planning. Specifically, a list of criteria contributing to communities' resilience, such as location, infrastructure and logistical capacities, could be used to create a quantitative index or evaluation of a given area's ability to recover from a disaster.<sup>17</sup> Executive branch agencies – as well as state, municipal, and local entities – could also incorporate this information in disaster planning and investments for that area and provide policy lessons to foster preparedness and resilience in other communities. By making relatively minimal investments in information and analysis, the executive branch has an opportunity to design and implement preparedness and resilience policies that are more efficient and effective.

### **Legislative Branch Actions**

By providing for vital public debate on ways in which the nation approaches natural disasters and by demonstrating resolve and commitment to addressing gaps and challenges in recovery and resilience through legislative action, Congress can play a remarkable role in fostering preparedness and resilience. For example, in January 2013, the Sandy Recovery Improvement Act of 2013 was passed by the House and sent to the Senate.<sup>18</sup> This Act would authorize the President, through the FEMA Administrator, to approve public assistance projects for major disasters or emergencies under alternative procedures to lower costs, increase flexibility of assistance, and hasten provision of aid.

In moving forward, Congress should consider potential reforms to the nation's disaster response architecture, including but not limited to making structural improvements to the way in which federal agencies interact with state, municipal, local, private sector, philanthropic, and other officials and addressing the manner in which costs of natural disasters are divided. The *CSIS-Pennington Family Foundation Series* events and discussions have generated recommendations for legislative action, such as:

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<sup>16</sup> Federal Emergency Management Agency, "Recovery Lessons Learned & Information Sharing", [www.fema.gov/recovery-lessons-learned-information-sharing](http://www.fema.gov/recovery-lessons-learned-information-sharing).

<sup>17</sup> A modified and expanded version of the NOAA Coastal Resilience Index, a self-assessment tool for communities in coastal regions, might serve as the basis for this index. See "Coastal Resilience Index: A Community Self-Assessment", [www.masgc.org/pdf/masgp/08-014.pdf](http://www.masgc.org/pdf/masgp/08-014.pdf).

<sup>18</sup> Sandy Recovery Improvement Act of 2013, H.R. 219, 113th Congress, 2013, [www.govtrack.us/congress/bills/113/hr219/text](http://www.govtrack.us/congress/bills/113/hr219/text).

- Revise the Stafford Act to include a designation for “catastrophic disasters” and contribute to long-term community resilience; and
- Explore new approaches to funding disaster response and recovery efforts.

*Revise the Stafford Act to include a “catastrophic disasters” designation*

Much of the existing legislation regarding national disasters serves to outline response frameworks and guidelines for federal disaster assistance to the states. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act) is intended to coordinate disaster response efforts and delineate the roles and processes for all levels of government when a disaster is declared. However, while the Stafford Act is of immense value, there remains room for legislative improvements.

At present, there are a variety of impediments limiting the speed and size of disaster efforts under the Stafford Act. One primary challenge is that the disaster designations defined in the Stafford Act are reportedly insufficient to address major crises. Currently, disasters may either be categorized as “emergencies” or “major disasters”, with varying levels of federal assistance associated with each. However, some have argued that the aid authorized under even the larger “major disaster” designation is insufficient when faced with the level of destruction wrought by extraordinary events such as the 9/11 terrorist attacks or Hurricane Katrina.<sup>19</sup> Limitations on the size of federal loans and other expenditures and a complex, oftentimes slow bureaucracy can constrain the ability of communities to recover quickly, endangering their long-term prospects for resilience. However, by reforming the Stafford Act to include a third designation for “catastrophic events” that would raise spending caps and streamline processes for aid distribution, Congress can increase the federal government’s ability to respond rapidly to such crisis with the appropriate level of resources. Scholars and local government officials alike have concurred that designation “catastrophic disaster” designation is warranted.<sup>20,21</sup> The inclusion of such a designation would improve the resilience of affected communities by providing them a better opportunity to overcome even the most severe disasters. For example, the designation would increase the amount of federal assistance and capacity immediately available to an

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<sup>19</sup> B. Lindsay and F. McCarthy, “Consideration for a Catastrophic Declaration: Issues and Analysis”, Congressional Research Service, July 6, 2011, [www.fas.org/sgp/crs/homesecc/R41884.pdf](http://www.fas.org/sgp/crs/homesecc/R41884.pdf).

<sup>20</sup> M. Moss and C. Shellhamer, “The Stafford Act and Priorities for Reform”, The Center for Catastrophe Preparedness & Response, New York University, [www.nyu.edu/ccpr/pubs/Report\\_StaffordActReform\\_MitchellMoss\\_10.03.07.pdf](http://www.nyu.edu/ccpr/pubs/Report_StaffordActReform_MitchellMoss_10.03.07.pdf).

<sup>21</sup> C. Nagin and K. Johnson, “Report of the Stafford Act Reform Task Force,” The United States Conference of Mayors, January 2010, [www.usmayors.org/pressreleases/uploads/StaffordActReformTaskForceReport.pdf](http://www.usmayors.org/pressreleases/uploads/StaffordActReformTaskForceReport.pdf).



affected area, expedite the process to receive this aid, and eliminate procedures or protocols that inhibit rapid access and disbursement.<sup>22</sup>

There are also a number of smaller issues which Congress could address through Stafford Act amendments, many of which would contribute to long-term disaster resilience. For example, provisions could allow for greater support for mental health services in the wake of disasters, more robust emergency housing plans, and additional resources for utility workers supporting recovery efforts. The Stafford Act currently authorizes the President to provide counseling services or financial assistance to enhance mental health services in the aftermath of a disaster<sup>23</sup> through FEMA’s Crisis Counseling Program.<sup>24</sup> An amendment to this policy in the context of the added “catastrophic” designation should include provisions for severe and extended mental health needs, beyond the nine month cap under the current program.<sup>25</sup> While these are relatively minor legislative changes, they could have an outsized impact on both the short and long-term ability of communities to cope with the effects of a disaster.

*Explore new approaches to funding disaster response and recovery efforts*

Even if the nation succeeds in increasing the effectiveness of disaster efforts, there is also a need to reexamine efficiency in how it pays for such efforts. The current model, under which the federal government bears much of the costs for recovery and rebuilding in the wake of a disaster, is increasingly untenable given the growing costs of disasters, a struggling economy, and shrinking budgets. Congress has a vital role to play in driving reforms in disaster funding, both through legislative action and, equally as important, through dialogue with the American public.

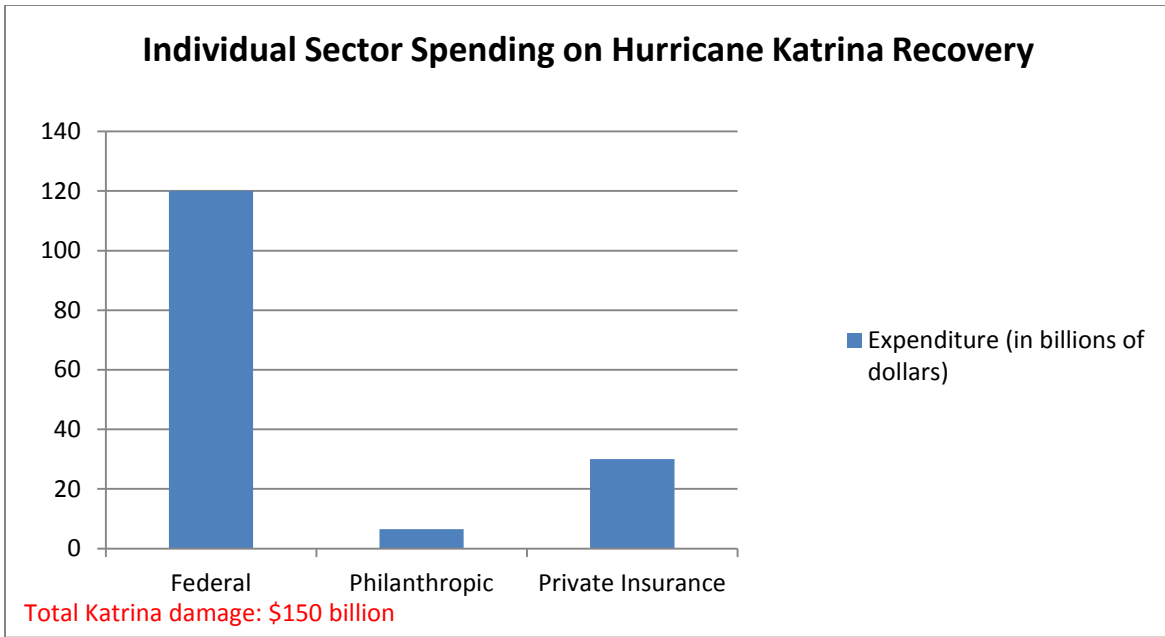
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<sup>22</sup> There is debate around this issue. Opponents of the designation have expressed concern about increased federal costs and involvement, as well as the impact of ambiguous authority and responsibility on response and recovery efforts. See Lindsay and McCarthy.

<sup>23</sup> Federal Emergency Management Agency, “The Stafford Act,” April 2013, [www.fema.gov/library/file%3Bjsessionid=2A76D2C4388758579A1407BCB9478BDD.Worker2Public2?type=publishedFile&file=stafford\\_act\\_booklet\\_042213\\_508d.pdf&fileid=4147a930-ac76-11e2-a228-001cc456982e](http://www.fema.gov/library/file%3Bjsessionid=2A76D2C4388758579A1407BCB9478BDD.Worker2Public2?type=publishedFile&file=stafford_act_booklet_042213_508d.pdf&fileid=4147a930-ac76-11e2-a228-001cc456982e).

<sup>24</sup> U.S. Department of Health and Human Services, “Mental Health All-Hazards Disaster Planning Guidance,” DHHS Pub. No. SMA 3829. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2003.

<sup>25</sup> Nagin and Johnson.



Source: A. Plyer, “Facts and Features: Hurricane Katrina Impact,” *Greater New Orleans Community Data Center*, August 10, 2012, [www.gnocdc.org/Factsforfeatures/HurricaneKatrinaImpact](http://www.gnocdc.org/Factsforfeatures/HurricaneKatrinaImpact).

Members of Congress have already proposed several legislative reforms to begin addressing the challenges posed by the rising costs of disasters. Among these is the Homeowners and Taxpayers Protection Act of 2013, introduced as H.R. 1101 in May 2013. This bill would establish a national fund, supported out of the premiums on additional catastrophic disaster reinsurance purchased by private insurance companies, to supplement state catastrophe funds in the event they are exhausted.<sup>26</sup> Proponents of this concept suggest that it would reduce the need for the federal spending in the event of a disaster and could even serve to stabilize and reduce disaster insurance rates.<sup>27</sup> As the nation grapples with the question of how to shoulder the growing costs of disasters, innovative initiatives such as H.R. 1101 will be all the more important.

Congress may also wish to examine how the United States pays for man-made natural disasters. In the wake of the *Deepwater Horizon* oil spill, British Petroleum (BP) was able to shoulder the cost for much of the recovery effort itself. Between May 2010 and April 2013, BP paid \$10.9 billion in claims, advances and settlements, including \$9 billion to individuals and businesses affected by the spill, \$1.4 billion for government claims, advances and settlements and \$300 million for tourism promotion, seafood testing and behavioral health. This funding stems from the \$20 billion trust BP established in 2010 for this purpose. During the same time frame, BP

<sup>26</sup> “Homeowners and Taxpayers Protection Act of 2013”, [www.protectingamerica.org/bill2013.pdf](http://www.protectingamerica.org/bill2013.pdf).

<sup>27</sup> J. Loy, “Former Deputy Secretary of Homeland Security and Commandant of the U.S. Coast Guard Urges Congress to Create a National Catastrophe Fund to Better Prepare and Protect America”, June 28, 2006, [www.protectingamerica.org/?PFID=21&PID=73](http://www.protectingamerica.org/?PFID=21&PID=73).

spent \$14 million on clean-up and response efforts, which recently ended in Florida, Alabama and Mississippi but continue in Louisiana<sup>28</sup>

Not all private entities that may trigger similar disasters have BP's access to financial resources. Furthermore, the Oil Pollution Act of 1990 (OPA 90) limits companies' liability for economic damage from such spills to only \$75 million, a relatively paltry sum compared to the damage a major spill can create. The 1989 *Exxon Valdez* spill, for instance, cost \$3.8 billion – a sum far exceeding the \$75 million allowable under OPA 90.<sup>29</sup> If a man-made disaster occurs and the responsible party proves unable to pay for recovery efforts, the present system would require the U.S. Government to use taxpayer dollars to address recovery. As such, Congress may wish to reexamine legislation such as OPA 90, consider how to adjust thresholds that have certainly changed since 1990, and begin a public dialogue about how paying for man-made disasters, especially those that result from high-risk enterprise.

Finally, as the financial burdens of disasters grow, Congress may ultimately be required to lead a larger, national-level discussion about long-term risk and costs. Specifically, the nation may need to have an open and honest public debate about land use and construction in areas at high risk for disasters. How should insurance and construction costs be factored in? Should the federal government continue to subsidize flood insurance and other programs that may promote development in geographic areas that are high-risk in terms of natural disasters (e.g., in the “hurricane belt” or “tornado alley”)? This conversation will be difficult. But rising costs of disasters may necessitate a significant reevaluation of national priorities in this regard. Congress has a vital role to play as the forum for this discussion and as a leader of any potential reform.

## **Philanthropies and Public-Private Partnerships**

Although action on the part of federal agencies and Congress is vital, improving preparedness and resilience will require not just government involvement, but coordinated participation of both the public and private sectors. If supported by effective communication and strong relationships, public-private partnerships could yield significant dividends, removing some of the pressure from the public sector while improving the long-term health of businesses and communities impacted by disaster. Participants in the *CSIS-Pennington Family Foundation Series* made general recommendation on how the public and private sectors, including philanthropies, could work together to:

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<sup>28</sup> British Petroleum, “Gulf of Mexico Recovery Progress,” [www.bp.com/liveassets/bp\\_internet/globalbp/globalbp\\_uk\\_english/gom\\_2012/STAGING/local\\_assets/downloads\\_pdfs/Gulf\\_Progress\\_Fact\\_Sheet\\_4-12-13.pdf](http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/gom_2012/STAGING/local_assets/downloads_pdfs/Gulf_Progress_Fact_Sheet_4-12-13.pdf).

<sup>29</sup> A. Mulkern, “BP’s Oil Spill Bill Could Dwarf Exxon’s *Valdez* Tab”, *The New York Times*, May 3, 2010, [www.nytimes.com/gwire/2010/05/03/03greenwire-bps-oil-spill-bill-could-dwarf-exxons-ivaldezi-91298.html?pagewanted=all](http://www.nytimes.com/gwire/2010/05/03/03greenwire-bps-oil-spill-bill-could-dwarf-exxons-ivaldezi-91298.html?pagewanted=all).

- Devote resources to develop and strengthen connections and build relationships between the public and private sector before a disaster strikes; and
- Increase focus on the preparedness and resilience of the small business community.

*Devote resources to develop and strengthen connections and build relationships*

Philanthropic organizations and industry each bring with them unique resources and capabilities that can serve to supplement and support government efforts. The Center for Disaster Philanthropy (CDP), for example, provides donors with useful information about “ways to respond to disasters and... the chance to work together on projects.”<sup>30</sup> By leveraging resources and building relationships, CDP encourages more effective, efficient response and recovery efforts in a real, practical way. Walmart, as another example, maintains nine disaster distribution centers across the country stocked with the items most needed during and after a disaster. Using their supply chain expertise, Walmart is able to rapidly restock stores in areas affected by disasters with these items, ensuring that communities have access to crucial supplies.<sup>31</sup>

Furthermore, the rapid recovery of area businesses after a disaster can help to speed the recovery and increase the resilience of the entire community. Public-private partnerships can be mutually supporting, providing value before, during, and after a disaster. For instance, Safeguard Iowa, a public-private partnership established by the State of Iowa, the Iowa Business Council, and the Business Executives for National Security “is smart enough model to be funded through three different streams they are not dependent on just one funding stream they pursue grants, they pursue memberships, they pursue money from the state government. They pursue meaningful outcomes across the spectrum. So Safeguard Iowa is doing good work in preparedness, they are doing good work in response, they are doing good work in recovery, and they are doing good work in mitigation.”<sup>32</sup>

However, for these partnerships to be as effective as possible, communication between the public and private sector must improve. Communication needs to be constant, consistent, and multi-directional with all parties able to convey clearly not only the assistance they can provide, but also their specific needs in a disaster situation. Furthermore, to provide the greatest value, these channels of communication must be established and rehearsed before, rather than after, a disaster occurs. By building connections and relationships before a crisis, the public and private sector

<sup>30</sup> N. Wallace, “New Nonprofit Seeks to Improve Giving for Disaster Relief”, *The Chronicle of Philanthropy*, August 21, 2012, <http://philanthropy.com/blogs/the-giveaway/new-nonprofit-seeks-to-improve-giving-for-disaster-relief/2994>.

<sup>31</sup> K. Souza, “Wal-Mart, Big Boxes Brace for Sandy”, *The City Wire*, October 29, 2012, [www.thecitywire.com/node/24804#.Ub8W0px2PM0](http://www.thecitywire.com/node/24804#.Ub8W0px2PM0).

<sup>32</sup> D. Stoneking, Federal Emergency Management Agency Region III, remarks at CSIS, January 30, 2013, [csis.org/press/press-release/role-public-private-partnerships-disaster-preparedness-and-resilience](http://csis.org/press/press-release/role-public-private-partnerships-disaster-preparedness-and-resilience).

can improve not only the speed and coordination of disaster response, but preparedness and resilience as well.<sup>33</sup>

The federal government – in particular, FEMA – has an opportunity to help build these invaluable connections by acting as a central point of contact for businesses and philanthropies. “It’s having the right people who understand the relationships at all levels of the government to interact, share information so that we can get the goods and the helpers.”<sup>34</sup> In many instances, private entities have little or no idea who to contact if they wish to provide assistance or even receive basic disaster-related information. FEMA could provide great value by acting as the primary interface for these private sector entities and help to facilitate relationships by connecting industry and philanthropic groups with federal, state, and local actors as well as with others in the private sector. This should be a priority for the new FEMA National Business Emergency Operations Center (NBEOC), which is a “new virtual organization that serves as FEMA’s clearinghouse for two-way information sharing between public and private sector stakeholders in preparing for, responding to, and recovering from disasters.”<sup>35</sup> The NBEOC could serve as a natural nexus for connecting the various communities of interest. FEMA might consider devoting additional staff and other resources to the NBEOC to ensure that it is capable of increased outreach to the public sector, tracking and maintaining existing partnerships, and facilitating new ones. In this way, would solidify a growing number of public-private partnerships that could prove invaluable in the event of a disaster.

#### *Increase focus on the preparedness and resilience of small businesses*

While several large national and international corporations have already established relations with FEMA and others involved in disaster efforts, there is also much to gain through establishing closer relationships with the nation’s small businesses. In a 2010 study, the National Federation of Independent Businesses found that 30 percent of small businesses close permanently following a presidentially-declared disaster.<sup>36</sup> This fact is particularly remarkable when considering the economies of many communities who rely heavily on small businesses. The failure of small businesses in the wake of a disaster can have a devastating impact on the economic drive from a community, greatly diminishing resilience.

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<sup>33</sup> R. Hoog, “Public and Private Sector Relationships in Emergency Management”, *Disaster Recovery Journal*, December 7, 2011, [www.drj.com/articles/online-exclusive/public-and-private-sector-relationships-in-emergency-management.html](http://www.drj.com/articles/online-exclusive/public-and-private-sector-relationships-in-emergency-management.html).

<sup>34</sup> Stoneking.

<sup>35</sup> Federal Emergency Management Agency, “National Business Emergency Operations Center” fact sheet, [http://www.fema.gov/media-library-data/20130726-1852-25045-2704/fema\\_factsheet\\_nbeoc\\_final\\_508.pdf](http://www.fema.gov/media-library-data/20130726-1852-25045-2704/fema_factsheet_nbeoc_final_508.pdf).

<sup>36</sup> A. Sligh, Jr., “Written Statement of Associate Administrator Albert Sligh, Jr., Federal Emergency Management Agency, before the Senate Committee on Small Business and Entrepreneurship, ‘Disaster Recovery: Evaluating the Role of America’s Small Business in Rebuilding Their Communities’”, Federal Emergency Management Agency, September 29, 2011, [www.dhs.gov/news/2011/09/29/written-testimony-associate-fema-senate-committee-small-business-and](http://www.dhs.gov/news/2011/09/29/written-testimony-associate-fema-senate-committee-small-business-and).

While there are resources – such as low-interest disaster loans – available to small businesses both before and after a disaster, many small businesses lack even basic disaster preparedness plans.<sup>37</sup> Thus, FEMA and businesses should work to build relationships, prioritize efforts to increase preparedness and resilience, and identify and access what resources may be available. Furthermore, in its role as a facilitator, FEMA should explore connecting small businesses with larger corporations who have experience with disasters and may be able to provide a level of mentorship. While the competitive nature of business obviously complicates this somewhat, given the interdependence of various businesses there is potential benefit to everyone involved. The health of the small business community is a vital component of resilience, and is an important component of cooperation between the public and private sectors.

## **The Road Ahead**

As the United States faces the continued threat of future disasters and rising costs, it is important that the nation take measures to ensure that it is as prepared and as resilient as possible. Looking forward, there are numerous opportunities for reforms to executive branch policy, legislative action, and the growth of public-private partnerships. With focus and drive, the United States can achieve new levels of preparedness and resilience that will help to limit the physical and financial effects of future disasters and better protect the American people.

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<sup>37</sup> FedEx, “Despite Recent Disasters, Survey Shows Most Small Business Owners Still Not Getting Prepared”, May 2, 2013, [news.van.fedex.com/despite-recent-disasters-survey-shows-most-small-business-owners-still-not-getting-prepared](http://news.van.fedex.com/despite-recent-disasters-survey-shows-most-small-business-owners-still-not-getting-prepared).