

NATURAL DISASTER PREPAREDNESS AND RECOVERY: ISSUES AND POLICY OPTIONS

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In October 2012, Superstorm Sandy caused nearly \$50 billion in damages and claimed 72 lives. Soon after, Congress passed \$60 billion in disaster relief and recovery aid. Superstorm Sandy illustrates the toll such events can have for people...and for the Federal budget. Scientists predict that global warming will lead to an increase in the frequency of extreme weather events (Huber, 2011). As shown in Figure 1, the number of Federal disaster declarations has increased substantially over time. What are the implications of this trend for society and government? How can policies be designed to reduce disaster vulnerability, improve resilience, and reduce Federal expenditures?

A number of factors determine the degree to which society is prepared for and able to recover from natural disasters. Consider two cases where earthquakes of similar magnitude resulted in dramatically different impacts. Earthquakes in Haiti (2010) and Japan (1995) killed 300,000 and 6,434 respectively, even though the two seismic events were of similar magnitude. While much of the difference in the impacts of these two quakes is due to the quality of infrastructure and the level of economic development, there are also major differences in the effectiveness

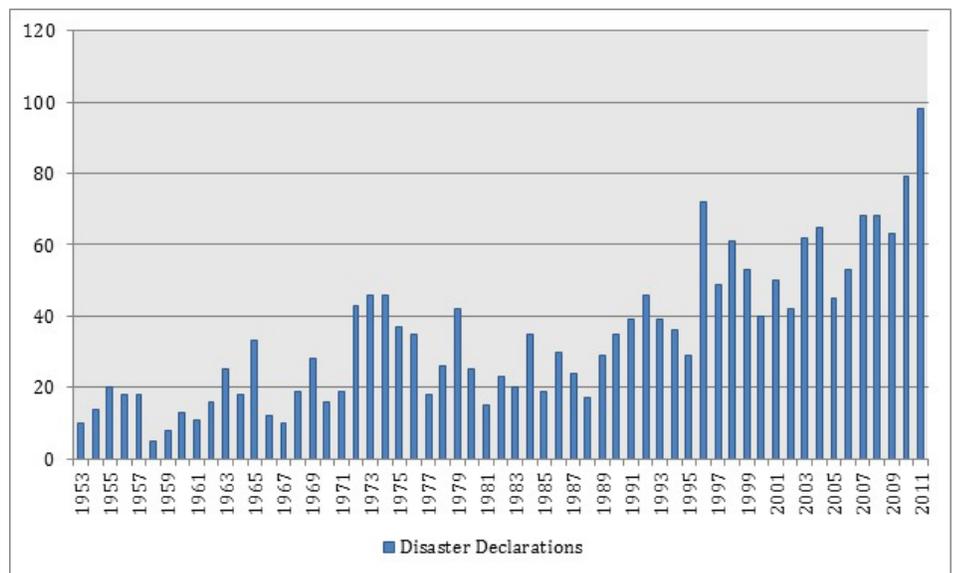


Figure 1. Number of Disaster Declarations: 1953- 2011.
Note: This graph is created based on data from U.S. GAO (2012).

of government policies with regard to preparedness and recovery.¹

While access to economic resources is important for preparedness and recovery, the focus of this brief is on the role of government: Policymakers in the United States and elsewhere have significant control/influence over a number of factors that determine preparedness and resilience. Importantly, policies designed to provide disaster recovery relief can also weaken incentives to prepare on the part of the private sector and subnational governments. The discussion below offers

a brief summary of US disaster policies and their implications.

FEDERAL DISASTER ASSISTANCE

Over 70 Federal programs offer disaster assistance to households, businesses, not-for-profit organizations, local governments, and states. These programs include direct grants to individuals and communities, low interest loans, public works projects to remove debris and rebuild, disaster unemployment benefits, mental health and legal services, environmental clean-up, and Federal income tax deductions

¹For example, in Japan government sets and enforces building code standards, whereas in Haiti there are no established building codes.

regarding the design and enforcement of region-specific building codes and land use planning. In addition, coherent and rehearsed emergency plans can improve resiliency.

Federal, state, and local authorities each play an important role in disaster preparedness and recovery. At the Federal level, current policies emphasize funding for recovery, not preparedness and mitigation. As the frequency and severity of extreme weather events grow, the costs of such policies can be expected to increase. It will therefore be increasingly important for Federal policies to encourage disaster preparedness, mitigation, and risk reduction efforts in the private sector and subnational governments.

REDUCING EXPOSURE AND FEDERAL EXPENDITURES OVER TIME

One way to more closely align risks and costs associated with that risk is to fund Federal disaster assistance in a way that is more consistent with differences in disaster risks. As one example, areas that are more prone to disasters would pay a higher “tax” to reflect the risks associated with living in these areas. The payments would force those living in riskier areas to consider the costs to society as a whole of decisions to live in places with greater exposure. Conversely, those living in safer places are no longer penalized. Changes to funding mechanisms such as this serve to better align exposure to disaster risk with the costs of disaster relief assistance, thereby providing incentives for people to live in safer locations. Over time, the shift in policy will encourage businesses and residents to take risk reduction measures, thereby reducing Federal disaster relief



expenditures. Similarly, disaster relief expenditures could be administered in a way that reduces the incentive to rebuild in risky locations.↓

DATA SOURCE

U.S. General Accounting Office. “Federal Disaster Assistance: Improved Criteria Needed to Assess a Jurisdiction’s Capability to Respond and Recover on Its Own” Pub. No. GAO-12-838, USGAO, Washington DC, September 2012.

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