



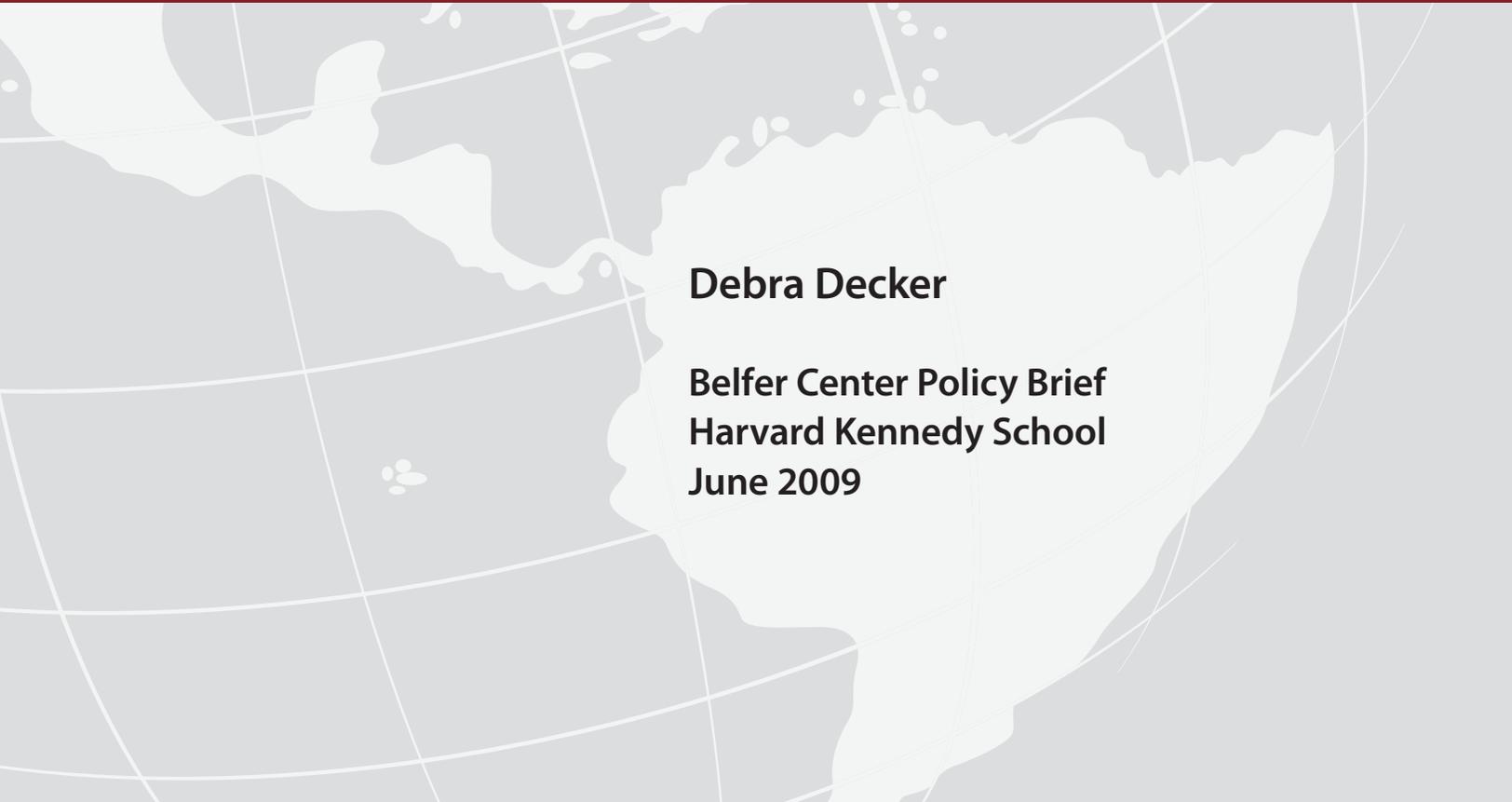
# Before Disaster Strikes: Rate and Raise Public Preparedness Now



**BELFER CENTER**

**for Science and International Affairs**

John F. Kennedy School of Government  
Harvard University



**Debra Decker**

**Belfer Center Policy Brief  
Harvard Kennedy School  
June 2009**

To: POTUS

CC: Janet Napolitano/DHS; Kathleen Sebelius/HHS; Hilda Solis/Labor;  
Arne Duncan/Education; Tom Vilsack/Agriculture

BCC: Craig Fugate/FEMA; John Brennan/HSCT

**Subject: Before Disaster Strikes: Rate and Raise Public Preparedness Now**

**Summary:** The American public is not prepared for major disasters. That will prove costly, including to the federal government, as more and new types of disasters are expected to occur. The new Security Council Resilience Directorate - Preparedness, as one of its first initiatives, should task the Department of Homeland Security (DHS) to work with federal and non-federal stakeholders and independent experts to:

- *Develop agreed measures of public preparedness, and*
- *Develop and execute cost-effective, innovative approaches for ensuring timely progress in preparedness.*

In the revamped federal agency performance measurement system, public preparedness should be deemed a high priority measure for DHS, as well as for selected other departments who need to be made federal partners in this effort. The new Directorate should monitor the establishment of and progress in these measures.

**Background:** More, more severe, and new types of disasters can be expected to occur as a result of new types of threats (e.g., biological, cyber, nuclear/radiological) and more as well as more severe threats due to increased global interconnectedness and climate change. Yet, most Americans are not adequately prepared to respond to or recover from a catastrophic disaster, and many expect the government to take care of them.<sup>1</sup> Even those who have experienced many common disasters such as earthquakes and hurricanes may not make appropriate preparations or exercise proper judgment in responding to new disasters that may require different responses.<sup>2</sup> Although community disaster preparation is considered the purview of state and local governments, when a disaster strikes, the federal government is often called in to respond or to help with recovery.<sup>3</sup> For example, New Orleans estimates that the federal government role in rebuilding that city will be \$15 billion.<sup>4</sup> Although all rebuilding costs cannot be averted, better citizen preparation and community standards have been shown to reduce the costs of catastrophes.<sup>5</sup>

Preparedness not only reduces response and recovery requirements but also increases American resilience, which could help deter intentional attacks. Indeed, many commissions and studies have noted the importance of effectively engaging the public in prevention and preparedness, for members of the public are the first responders.<sup>6</sup>

Nonetheless, American preparedness is neither formally measured nor officially monitored and is believed to lag behind that of other countries.<sup>7</sup> One reason for this is confusion over responsibilities. Although the federal government has an important role to play in ensuring preparedness, it has generally pursued this role through state and local governments rather than directly, as the federal government has no constitutional authority to regulate public health and safety. The federal government does provide grants to encourage states and communities to achieve broad emergency management goals; however, outcome measures related to the public's preparedness are missing.<sup>8</sup> The federal National Preparedness Guidelines do include "Community Preparedness and Preparation" as a target capability,<sup>9</sup> but the National Response Framework does not focus to any significant degree on the general public.<sup>10</sup> And state and local

governments in turn often consider themselves service providers rather than aggressive public enablers.<sup>11</sup>

The attempts of the federal government itself to increase public preparedness have been generally limited to its *ready.gov* campaign and its support for efforts such as the Community Emergency Response Teams (CERTs).<sup>12</sup> Most recently, however, the Federal Emergency Management Agency (FEMA) has committed to a new attitude toward public engagement that includes an enhanced online approach.<sup>13</sup>

These efforts may be necessary but not sufficient.<sup>14</sup> Thus far, these have been relatively passive efforts to engage the public, and their effectiveness is unknown as *no measures of public resilience have been agreed and utilized*. In 2005, the American Red Cross and the Council for Excellence in Government, working with others, did devise some agreed but straightforward measures of what people need to know and to have done to be prepared; on the most recent “Readiness Quotient” (RQ) survey, the country still did not score well.<sup>15</sup> The Emergency Preparedness Institute, a private corporation primarily of media and insurers, using RQ and other indicators developed a “preparedness clock,” noted the problems with the lack of consistent surveys but also noted time was running out to prepare for the next catastrophe.<sup>16</sup> Government, private sector, and public agreement needs to be forged on what constitutes proper public preparedness for multiple threat scenarios *based on specific geographic and population vulnerabilities*.<sup>17</sup>

The DHS Strategic Plan rightly states the importance of public readiness to ensuring homeland security but omits any survey measures to report on this goal or major programs to achieve it. Having goals without measures is like sending your child to school and not getting a report card: you hope progress is being made, but you can never be sure. Past DHS leaders have bemoaned the public’s unwillingness to prepare despite its efforts. However, more than cajoling is needed: better public preparedness may be accomplished if new innovative techniques are used to attract and engage the public and if specific goals with clear accountability measures are established.

**Recommendation:** 1. Task DHS to work with stakeholders to develop well-considered measures of public preparedness and then to be responsible with those stakeholders for establishing and achieving target levels of preparedness, with regular reporting to the public and to the new Security Council Resilience Directorate (Preparedness), which should monitor outcomes. 2. Make public preparedness a high-priority measure for selected agencies in the new federal performance system.

**Next Steps:** The new White House Preparedness Directorate should direct DHS to lead this effort and other federal stakeholders to participate and should monitor progress, including by ensuring that public preparedness is part of target agencies’ and departments’ performance evaluation. DHS should designate an individual/office responsible for the public preparedness effort and its outcomes.<sup>18</sup> The office would:

- Establish an initial process plan to effect the effort
  - Identify the key stakeholders that need to participate at different points and how<sup>19</sup>
  - Determine some initial broad preparedness baselines with available measures and establish interim goals for process implementation and for desired outcomes
  - Ensure qualified public affairs and emergency preparedness staff lead the efforts

- Consider establishing a Program Management Office (PMO) to work across departments, levels of government and projects, including related projects such as the Integrated Public Alert and Warning System
- Coordinate the development of agreed measures of levels of public preparedness, with attention given to the different needs of populations and of regions at different times, and to the desirability of the approaches
  - Review past and current efforts to establish measures
  - Consider lessons learned from other countries' and U.S. historic and regional efforts at public preparedness, including performance and costs<sup>20</sup>
  - Involve emergency preparedness specialists in and out of government in developing a range of target capabilities that individuals and families should have (building off of the approaches of the Target Capabilities List for communities and the Cost-to-Capability initiative<sup>21</sup>)
  - Involve communities and the private sector in the discussions at different levels of government, including with elected officials, to gain insight into current baseline capabilities and potential desirable levels
- Develop, evaluate, and execute agreed approaches for ensuring timely progress in these measures, with agreed milestones for different stakeholders' contributions and for public preparedness target outcomes based on community requirements
  - Brainstorm innovative approaches for achieving ranges of target capabilities. Can the private sector be leveraged, e.g., through the sale of pre-packaged disaster supplies and instruction manuals? Should DHS underwrite disaster preparedness programming on cable television with private industry producers who could make it into a compelling view and/or support the development of educational video games? What roles should schools and workplaces have in the plan? How can Web 2.0 and community organizers best be utilized?<sup>22</sup>
  - Evaluate the alternative approaches for potential costs, benefits, and risks
  - Gain agreement on stakeholder roles and timetables for program execution
- Monitor progress, review program needs, and report back to the Security Council and the public.

This need not be an overly complex effort. Establishing initial basic measures and targeting some simple gains may greatly reduce risks.

*This Policy Brief was prepared by Debra K. Decker, Associate, International Security Program/Project on Managing the Atom at Harvard Kennedy School's Belfer Center for Science and International Affairs. She can be contacted at: [Debra\\_Decker@hks.harvard.edu](mailto:Debra_Decker@hks.harvard.edu).*

STATEMENTS AND VIEWS EXPRESSED IN THIS POLICY BRIEF ARE SOLELY THOSE OF THE AUTHOR AND DO NOT IMPLY ENDORSEMENT BY HARVARD UNIVERSITY, THE JOHN F. KENNEDY SCHOOL OF GOVERNMENT, OR THE BELFER CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS.

## Endnotes

---

<sup>1</sup> In 2007, general polling found only one-third of Americans considered themselves prepared for or had started preparing for a major disaster and most expected help to arrive within hours (The Marist College Institute for Public Opinion, Annual Survey of the American Public by the National Center for Disaster Preparedness, Columbia University Mailman School of Public Health and The Children's Health Fund, "The American Preparedness Project: Where the US Public Stands in 2007 on Terrorism, Security, and Disaster Preparedness," pp. 3, 7, <http://www.ncdp.mailman.columbia.edu/files/NCDP07.pdf>). In 2008, this appeared to have improved some but still only 44% of U.S. residents had some parts of a disaster plan (The Marist College Institute for Public Opinion, Annual Survey of the American Public by the National Center for Disaster Preparedness, Columbia University Mailman School of Public Health and The Children's Health Fund, "The 2008 American Preparedness Project: Why Parents May Not Heed Evacuation Orders & What Emergency Planners, Families and Schools Need to Know," p.3, [http://www.ncdp.mailman.columbia.edu/files/white\\_paper\\_9\\_08.pdf](http://www.ncdp.mailman.columbia.edu/files/white_paper_9_08.pdf)). Recent, more issue-specific polling echoes these findings, i.e., a 2009 poll on hurricane survival in coastal states shows most people unprepared and uninformed on ways to reduce vulnerability (National Hurricane Survival Initiative, "Mason-Dixon Poll Reveals Residents of Coast States Grossly Unprepared for 2009 Hurricane Season," May 28, 2009, <http://www.hurricanesafety.org/media09/HurricaneNewsConferenceRelease-2.pdf>).

<sup>2</sup> The importance of learning failures (e.g., "We survived last time without evacuating.") and social norms in driving decisions have been discussed by many. See for example: "12. 5 Factors Influencing the Adoption of Mitigation Measures," pp. 278-285, in *Managing Large-Scale Risks in a New Era of Catastrophes*, March 2008, published by Wharton Risk Management and Decision Processes Center in conjunction with Georgia State University and the Insurance Information Institute, [http://opim.wharton.upenn.edu/risk/library/Wharton\\_LargeScaleRisks\\_FullReport\\_2008.pdf](http://opim.wharton.upenn.edu/risk/library/Wharton_LargeScaleRisks_FullReport_2008.pdf).

<sup>3</sup> Harvard Business School Professor David Moss documents Americans' increased expectations from government in disaster relief and insurance in, *When All Else Fails: Government as the Ultimate Risk Manager*, Harvard University Press: 2002, Cambridge, MA. Internationally, federal governments, pressed for post-disaster aid, have interceded to help manage catastrophic risks before they occur (Erwann O. Michel-Kerjan and Debra K. Decker, "Insure to Assure," *Innovations: Technology, Governance, Globalization*, Spring 2009 [forthcoming], MIT Press, 139-155).

<sup>4</sup> Government Accountability Office, *Disaster Recovery: Past Experiences Offer Insights for Recovering from Hurricanes Ike and Gustav and Other Recent Natural Disasters*, September 2008, p. 6, <http://www.gao.gov/new.items/d081120.pdf>.

<sup>5</sup> For example, see: Tammy O. Tengs, Miriam E. Adams, Joseph S. Pliskin, Dana Gelb Safran, Joanna E. Siegel, Milton C. Weinstein, John D. Graham, "Five-Hundred Life-Saving Interventions and Their Cost-Effectiveness," *Risk Analysis*, Volume 15, Issue 3, June 1995, pp. 369-390; and, *Managing Large-Scale Risks in Catastrophes*, pp. 273-278.

<sup>6</sup> Bob Graham, Chairman, and Jim Talent, Vice-Chairman, "The Role of the Citizen," in The Authorized Edition of the World at Risk, pp. 107-112, <http://documents.scribd.com/docs/15bq1nrl9aerfu0yu9qd.pdf>; Homeland Security Institute, "Public Role and Engagement in Counterterrorism Efforts: Implications of Israeli Practices for the U.S., Final Report," April 2, 2009, Prepared for Department of Homeland Security, Office of Science and Technology; and, Trust for America's Health, "Improving Community Engagement," *Ready or Not? 2008*, December 2008, <http://healthyamericans.org/reports/bioterror08/>; Ashton B. Carter, Michael M. May and William J. Perry. *The Day After: Action in the 24 Hours Following a Nuclear Blast in an American City*. Cambridge, Mass.: Report for Preventive Defense Project, Belfer Center for Science and International Affairs, Harvard Kennedy School, 05 2007, [http://belfercenter.ksg.harvard.edu/files/dayafterworkshopreport\\_may2007.pdf](http://belfercenter.ksg.harvard.edu/files/dayafterworkshopreport_may2007.pdf).

<sup>7</sup> For example, Britain has a more centralized, controlled approach to public health and preparedness; Israel has highly trained and exercised public preparedness efforts. Although the United States might not

---

take a similarly controlled approach for all aspects of preparedness, lessons may be learned from studying others' approaches.

<sup>8</sup> The DHS Strategic Plan released in September 2008, despite calling for "a culture of preparedness throughout all levels of society," does not prioritize general public preparedness with any measurable outcomes. See: U.S. Department of Homeland Security, "One Team, One Mission, Securing Our Homeland: U.S. Department of Homeland Security Strategic Plan, Fiscal Years 2008-2013," p. 20, [http://www.dhs.gov/xlibrary/assets/DHS\\_StratPlan\\_FINAL\\_spread.pdf](http://www.dhs.gov/xlibrary/assets/DHS_StratPlan_FINAL_spread.pdf).

<sup>9</sup> U.S. Department of Homeland Security, National Preparedness Guidelines, September 2007, pp. 6, 11, 20-21, [http://www.dhs.gov/xlibrary/assets/National\\_Preparedness\\_Guidelines.pdf](http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf). The Government Accountability Office noted the gaps in planning integration and outcome measurement for stakeholder preparedness (Government Accountability Office, "National Preparedness: FEMA Has Made Progress, but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts," April 2009, <http://www.gao.gov/new.items/d09369.pdf>).

<sup>10</sup> DHS through the Federal Emergency Management Agency (FEMA) is responsible for maintaining the National Response Framework, which outlines various entities' responsibilities. Information on it is available at: <http://www.fema.gov/emergency/nrf/>. The Government Accountability Office has cited problems with the way the framework was formulated. See: Government Accountability Office, "National Response Framework: FEMA Needs Policies and Procedures to Better Integrate Non-Federal Stakeholders in the Revision Process," June 2008, <http://www.gao.gov/new.items/d08768.pdf>.

<sup>11</sup> In terms of ensuring preparedness, DHS gives about \$4 billion to states, territories and local jurisdictions to fulfill their plans and to meet national preparedness priorities. U.S. Department of Homeland Security, Annual Performance Report, Fiscal Years 2008-2010, pp. 11, 78-88; [http://www.dhs.gov/xlibrary/assets/cfo\\_apr\\_fy2008.pdf](http://www.dhs.gov/xlibrary/assets/cfo_apr_fy2008.pdf). Public preparedness is not listed among the national priorities (see: U.S. Department of Homeland Security, Fact Sheet, A Common Starting Point: The National Priorities, [http://www.ojp.usdoj.gov/odp/docs/Priorities\\_041305.pdf](http://www.ojp.usdoj.gov/odp/docs/Priorities_041305.pdf)). Additionally, many states expect citizens to prepare themselves. As New York says, it will provide citizens with information and conduct public awareness campaigns, "However, it is the responsibility of every individual to ensure they and their families have taken the necessary preparedness steps." (New York State Homeland Security Strategy 2009, <http://www.semo.state.ny.us/uploads/2009%20NYS%20Homeland%20Security%20Strategy.pdf>, pp. 7, 22)

<sup>12</sup> CERT is a free program that trains individuals to meet their own families' needs as well as the needs of the community in times of a crisis. The program is part of the Citizen Corps – an effort to develop and integrate communities' emergency capability into that of government. The Citizen Corps CERT program is available around the country. CERT is just one possible way to increase local resilience, but at its current level of operation (about \$15 million out of DHS' \$50 billion budget), it is certainly not sufficient – and its effects have not been fully evaluated. For information on CERT, see:

<http://www.citizencorps.gov/cert/>. The Ready.gov campaign provides online support for individuals, families, businesses interested in preparing for disasters. It provides online information and tools. For information on this campaign, see: <http://www.ready.gov/america/about/index.html> and for FEMA materials <http://www.fema.gov/areyouready/index.shtm>.

<sup>13</sup> Ed O'Keefe, "FEMA Encourages Public Participation," *The Washington Post*, June 4, 2009,

<http://www.washingtonpost.com/wp-dyn/content/article/2009/06/03/AR2009060303404.html>.

<sup>14</sup> See Homeland Security Institute (2009), pp. 30-46, for more information on these and other public campaigns and the Institute's similar assessment.

<sup>15</sup> "Test Your RQ" can be found at <http://www.whatsyourrq.org/test.shtm>. Survey respondents scored 4.1 out of 10, with improvements driven by employers and children's schools/daycares having emergency plans. The first Secretary of Homeland Security Tom Ridge supported the concept of the Readiness Quotient or "RQ." It had been funded by foundation grants. The Council for Excellence in

---

Government has been merged into another organization, and the survey will now be overseen by the Preparedness Health and Safety Department at the American Red Cross.

<sup>16</sup> Emergency Preparedness Institute, White Paper – January 2009, <http://www.getpreparedtoday.org/FinalWhitePaper2009.pdf>.

<sup>17</sup> The effort could be similar to what is being undertaken now to establish voluntary private sector preparedness standards, required by the Implementing the Recommendations of the 9-11 Commission Act.

<sup>18</sup> FEMA has the preparedness mandate, but the media expertise and outreach required argues for an even broader public engagement effort than FEMA has traditionally undertaken. FEMA would need to be adequately resourced to achieve this, both directly as well as through support from DHS Public Affairs and others.

<sup>19</sup> The Government Accountability Office has noted the importance of stakeholder involvement in preparedness planning, including the clarification of roles and responsibilities (William O. Jenkins, Jr., Director Homeland Security and Justice, Government Accountability Office, Emergency Management: Observations on DHS's Preparedness for Catastrophic Disasters, Testimony Before the Subcommittee on Management, Investigations, and Oversight, Committee on Homeland Security, House of Representatives, June 11, 2008, pp.9-10, <http://www.gao.gov/new.items/d08868t.pdf>.) Specific groups, such as the disabled, also need to be empowered and served; see, American National Standards Institute, Homeland Security Standards Panel, Final Executive Summary: ANSI-HSSP Workshop on Emergency Preparedness for Persons with Disabilities and Special Needs, February 3-4, 2009, Washington, D.C., <http://publicaa.ansi.org/sites/apdl/Documents/Standards%20Activities/Homeland%20Security%20Standards%20Panel/Persons%20With%20Disabilities%20Workshop/Final%20Workshop%20Report%20and%20Executive%20SummaryPersons%20with%20Disabilities%2005-07-09.pdf>.

<sup>20</sup> Many studies have been done. See, for example, some determinants of America's historical public preparedness in Irwin Redlener and David Berman, "National Preparedness Planning: The Historical Context And Current State Of The U.S. Public's Readiness, 1940-2005," *Journal of International Affairs*; Spring/Summer2006, Vol. 59 Issue 2, p87-103, 17p; and some lessons from analysis of regional public preparedness in Naim Kapucu, "Collaborative emergency management: better community organising, better public preparedness and response," *Disasters*; Jun2008, Vol. 32 Issue 2, p239-262. The National Academies currently is undertaking studies on National Earthquake Resilience and on Private-Public Sector Collaboration to Enhance Community Disaster Resilience, which should be noted.

<sup>21</sup> The Comprehensive Assessment System that FEMA is instituting to measure federal, state and local preparedness is an excellent step in managing targeted increased performance levels; however, the system needs to extend all the way through to the public itself. As noted, simply increasing public messaging, as is proposed in the FY2010 budget, may not be sufficient to achieve gains, especially if these gains are not measured and targeted. For the FEMA budget statement, see: W. Craig Fugate, Administrator, Federal Emergency Management Agency, Statement for the Record on the Fiscal Year 2010 President's Budget Before the Subcommittee on Emergency Communications, Preparedness, and Response of the Committee on Homeland Security, U.S. House of Representatives, June 9, 2009, <http://homeland.house.gov/SiteDocuments/20090609103727-00352.pdf>. Some in Congress also agree in the importance of the individual for national security, e.g., Representative Henry Cuellar (D-TX), noted at that hearing, "As Chairman of this Subcommittee, it has become clear to me that, a prepared citizenry is the cornerstone of a resilient Nation...That is why I will work to ensure that the Department of Homeland Security and particularly FEMA, has the appropriate resources and authorities to strengthen their partnerships with individuals as well as with State, local, and Tribal governments." (Opening Statement of Chairman Henry Cuellar as Prepared for the Hearing of the Subcommittee on Emergency Communications, Preparedness and Response of the Committee on Homeland Security, U.S. House of Representatives, June 9, 2009, "The FY 2010 Budget for the Federal Emergency Management Agency,"

---

<http://homeland.house.gov/SiteDocuments/20090609103646-83883.pdf>). For the capabilities lists for communities, see: U.S. Department of Homeland Security, Fact Sheet: A Nation Prepared: The Target Capabilities List, [http://www.ojp.usdoj.gov/odp/docs/Target\\_Capabilities\\_List\\_041405.pdf](http://www.ojp.usdoj.gov/odp/docs/Target_Capabilities_List_041405.pdf).

<sup>22</sup> Controlled tests of approaches could be undertaken, with matched states or communities undertaking their preferred alternatives. For a discussion of community organizing for preparedness, see, Arnold Bogis, "Applying the "Obama Model" for Homeland Security," *The Huffington Post*, February 11, 2009,

[http://www.huffingtonpost.com/arnold-bogis/applying-the-obama-model\\_b\\_166157.html](http://www.huffingtonpost.com/arnold-bogis/applying-the-obama-model_b_166157.html). For a view of what the federal government can do to more directly assist local and state emergency managers in public preparedness and how FEMA may be empowered with more authority than it has used, see: Larry Gispert, President, International Association of Emergency Managers, Testimony Before the Ad Hoc Subcommittee on State, Local & Private Sector Preparedness of the Homeland Security & Governmental Affairs Committee, U.S. Senate, "Mission Possible: FEMA's Future Preparedness Planning," September 24, 2008, <http://hsgac.senate.gov/public/files/Gisperttestimony.pdf>.