
Achieving Resilience in Disaster Management: The Role of Public-Private Partnerships

Nathan E. Busch
Christopher Newport University, nbusch@cnu.edu

Austen D. Givens
Utica College, adgivens@utica.edu

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Introduction

On May 22, 2011, one of the most powerful tornadoes in American history ripped through Joplin, Missouri.¹ With winds in excess of 200 miles per hour, the tornado destroyed everything in its path, tragically killing 158, wounding over 1,000, and damaging up to 30 percent of the city – some 8,000 buildings in total.² Emergency response efforts began immediately, and with each passing hour, the scale of the disaster became increasingly clear. The principal of Joplin High School remarked to a reporter, “You see pictures of World War II, the devastation and all that with the bombing. That’s really what it looked like...I couldn’t even make out the side of the building. It was total devastation in my view. I just couldn’t believe what I saw.”³ Missouri Governor Jay Nixon underlined the scope of the state’s recovery efforts: “As a state, we are deploying every agency and resource available to keep Missouri families safe, search for the missing, provide emergency medical care, and begin to recover.”⁴ And among the many organizations that began recovery operations, businesses immediately assumed substantial and broad-ranging roles to help restore Joplin to a sense of normalcy.

Home Depot and Wal-Mart each pledged \$1 million to assist with disaster relief.⁵ Moreover, Home Depot partnered with Delta Airlines to fly in 200 volunteers from Atlanta, Georgia-area businesses.⁶ Home Depot also delivered goods to assist in relief efforts in addition to cleanup supplies from Georgia Pacific, as well as food and beverages from Chik-fil-A and the Coca-Cola Company.⁷ The Empire District Electric Company, which services Joplin, teamed up with neighboring power companies to restore electricity and natural gas service to Joplin residents.⁸ The mobile phone company Sprint provided cell phones and satellite phones to local emergency officials.⁹ Numerous firms deployed to the Missouri Emergency Operations Center (EOC) to help coordinate response and recovery efforts.¹⁰ A Texas-based development firm, Wallace

¹ Richard Esposito, Leezel Tanglao, Kevin Dolak, and Michael Murray, “Joplin Death Toll at 116 Making It Deadliest Tornado in Nearly 60 Years,” abcnews.com, May 23, 2011, available at: <http://abcnews.go.com/US/joplin-tornado-death-toll-116-makes-deadliest-single/story?id=13662193#.UOcBzpgVoro>.

² National Weather Service Weather Forecast Office (Springfield, MO), “Joplin Tornado Event Summary—May 22, 2011,” noaa.gov, May 21, 2012, available at: http://www.crh.noaa.gov/sgf/?n=event_2011may22_summary; “Joplin Tornado: Death and Destruction by the Numbers,” abcnews.com, May 25, 2011, available at:

<http://abcnews.go.com/US/joplin-tornado-death-destruction-numbers/story?id=13685464#.UOcFTZgVorp>.

³ Esposito et al., “Joplin Death Toll.”

⁴ Ibid.

⁵ North American Retail Hardware Association, “Home Depot, Walmart to Give \$1 Million to Joplin Relief Efforts,” May 26, 2011, available at: http://ace.nrha.org/v2/Hardware_Retailing/Article.aspx?slug=home-depot-walmart-to-give-1-million-to-joplin-relief-efforts.

⁶ Craig Allen, “As Joplin, Missouri Rebuilds, a Home Depot Store Reopens,” homedepot.com, January 11, 2012, available at: <http://ext.homedepot.com/community/blog/tag/joplin/>.

⁷ Ibid.

⁸ U.S. Department of Homeland Security, Federal Emergency Management Agency, *The Response to the 2011 Joplin, Missouri, Tornado: Lessons Learned Study*, 2011, 19, available at: <http://kyem.ky.gov/teams/documents/joplin%20tornado%20response,%20lessons%20learned%20report,%20fema,%20december%202011.pdf>.

⁹ Ibid., 19–20.

¹⁰ EOCs are facilities where decision-makers gather to coordinate responses to large-scale emergencies, and are physically located away from an emergency scene itself. See also Federal Emergency Management Agency, *The Response to the 2011 Joplin, Missouri, Tornado*, 20.

Bajjali Development Partners, began consulting with the Joplin City Council to attract private sector investors for residential and commercial re-construction projects.¹¹ Government and businesses worked together effectively to begin the rebuilding process in Joplin.

What occurred in Joplin is increasingly common nationwide. Public-private partnerships help communities become more resilient in the face of natural and man-made disasters. These partnerships are part of a broader trend in disaster management that emphasizes the importance of building resilient communities. Resilience is a relatively new concept in U.S. disaster management which acknowledges that natural and man-made disasters will occur, and that all segments of society should be prepared in order to bounce back quickly from these disasters.¹² This emphasis upon resilience represents an evolution in U.S. disaster management as a whole. Although government has long emphasized the importance of disaster preparedness in communities – that is, measures taken before disaster strikes – historically, government has not emphasized resilience as a desirable quality for communities.

There is also widespread recognition among practitioners that public-private partnerships are an integral part of strengthening resilience, because they can help to increase efficiency and effectiveness in disaster management.¹³ In this sense, public-private partnerships and resilience are now closely linked to one another in U.S. disaster management. The Federal Emergency Management Agency (FEMA) embraces this connection between public-private partnerships and resilience. In an illustration of its commitment to cultivating public-private partnerships for disaster management, FEMA sponsored a widely attended 2011 professional conference at the U.S. Chamber of Commerce entitled “Building Resilience through Public Private Partnerships.”¹⁴ Additionally, FEMA Administrator Craig Fugate regularly emphasizes the importance of public-private partnerships in disaster management, such as in this 2011 Congressional testimony:

¹¹ Debby Woodin, “Texas firm could guide Joplin’s tornado recovery,” *The Joplin Globe*, March 27, 2012, available at: <http://www.joplinglobe.com/tornadomay2011/x1940320988/Texas-firm-could-guide-Joplin-s-tornado-recovery>.

¹² U.S. Department of Homeland Security, *Quadrennial Homeland Security Review Report: A Strategic Framework for a Secure Homeland*, February 2010, 31–33.

¹³ The U.S. federal government considers disaster management a subfield of homeland security. For examples of homeland security perspectives on public-private partnerships, see U.S. Department of Homeland Security, *National Response Framework*, 2008, 18–20; U.S. Department of Homeland Security, *National Incident Management System*, 2008, 15–16; U.S. Department of Homeland Security, *National Infrastructure Protection Plan*, 2009; U.S. Department of Homeland Security, *National Cyber Incident Response Plan* [Interim Version], September 2010; U.S. Department of Homeland Security, *National Disaster Recovery Framework*, September 2011; U.S. Department of Homeland Security, *Quadrennial Homeland Security Review Report: A Strategic Framework for a Secure Homeland*, February 2010; Thomas A. Cellucci, *Partnership Program Benefits Taxpayers as well as Public and Private Sectors*, U.S. Department of Homeland Security, September 2008; Smith, Douglas A. and Thomas A. Cellucci (Eds.), *Harnessing the Valuable Experience and Resources of the Private Sector for the Public Good: Innovative Public-Private Partnerships*, U.S. Department of Homeland Security, June 2010. For examples of the efficiencies of public-private partnerships, see Emanuel S. Savas, “Privatization and the New Public Management,” *Fordham Urban Law Journal* 28:5 (2000): 1731–1737; Darrin Grimsey and Mervyn K. Lewis, “Are Public Private Partnerships value for money? Evaluating alternative approaches and comparing academic and practitioner views,” *Accounting Forum* 29:4 (2005): 345–378.

¹⁴ Dan Stoneking, “Public Private Partnership Conference,” FEMA Blog, *Federal Emergency Management Agency*, August 8, 2011, available at: <http://blog.fema.gov/2011/08/public-private-partnership-conference.html>.

“The private sector, from Fortune 500 companies to your local grocery store, is an essential member of the team.... Growing strong working relationships between emergency managers and the private sector is a good business decision for everyone – it helps us better serve survivors, rebuild our communities and boost local economies.”¹⁵

Whether in preparation for natural disasters or terrorist attacks, resilience-oriented public-private partnerships are now an essential part of U.S. disaster management. Furthermore, numerous opportunities are emerging for these partnerships to grow and thrive. This trend is a generally positive development. At the same time, however, resilience-oriented public-private partnerships also face a number of shared challenges that will need to be worked through in the coming years if public-private partnerships are to realize their potential for improving resiliency.

This article examines the current status of public-private partnerships in disaster management, as well as the emerging opportunities and challenges that need to be addressed for these partnerships to achieve their full potential. It begins with a systematic overview of the strategic, operational, and tactical effects of public-private partnerships in disaster management today, and describes how these effects can increase societal resilience. Next, the article describes several of the emerging opportunities and challenges that these partnerships will have to work through in the coming years. The article concludes with a set of policy recommendations to enhance the efficiency and effectiveness of public-private partnerships in disaster management.

Defining and Clarifying Public-Private Partnerships in Disaster Management

This article defines public-private partnerships as collaboration between a public sector (government) entity and a private sector (for-profit) entity to achieve a specific goal or set of objectives.¹⁶ In disaster management these partnerships can take many forms, including service contracts and information dissemination partnerships.¹⁷ Government disaster management

¹⁵ Federal Emergency Management Agency, “FEMA Administrator: Business Community is Critical Partner in Disaster Response and Recovery,” November 4, 2011, available at: <http://www.fema.gov/news-release/2011/11/04/fema-administrator-business-community-critical-partner-disaster-response-and>. Fugate is FEMA’s top official.

¹⁶ We do not address non-profit organizations in this article because they are treated as part of a distinct, separate sector in disaster management and public administration literature, e.g. Naim Kapucu, “Non-profit response to catastrophic disasters,” *Disaster Prevention and Management* 16:4 (2007): 551–561; Naim Kapucu, “Public-Nonprofit Partnerships For Collective Action in Dynamic Contexts of Emergencies,” *Public Administration* 84:1 (2006): 205–220; For analyses of different types of public-private partnerships, see Ami J. Abou-bakr, *Managing Disasters through Public-Private Partnerships* (Washington, D.C.: Georgetown University Press, 2013), 43–90; Nathan E. Busch and Austen D. Givens, “Public-Private Partnerships in Homeland Security: Opportunities and Challenges,” *Homeland Security Affairs* 8:1 (October 2012): 1–24; Robert A. Beauregard, “Public-Private Partnerships as Historical Chameleons,” in *Partnerships in Urban Governance: European and American Experience*, ed. Jon Pierre (London: MacMillan Press, 1997), 52–70; Pauline V. Rosenau (Ed.), *Public-Private Policy Partnerships* (Cambridge: MIT Press, 2000); Peter V. Schaeffer & Scott Loveridge, “Toward an Understanding of Types of Public-Private Cooperation,” *Public Performance & Management Review* 26:2 (2002): 169–189.

¹⁷ Goldsmith, Stephen and William D. Eggers, *Governing By Network: The New Shape of the Public Sector* (Washington, D.C.: Brookings Institution Press, 2004), 69–70.

agencies focus on the need for public-private partnerships, as well as the potential advantages of these partnerships.¹⁸ Academic research in fields related to disaster management, such as critical infrastructure protection and public administration, addresses the evolving role of public-private partnerships.¹⁹ Moreover, debate on the private sector's role within other disaster management-related fields, such as public health and hazard mitigation, demonstrates increasing awareness of how businesses impact traditionally government functions.²⁰

But there has been comparatively little examination of public-private partnerships for disaster management in the academic literature, and even less on their role in achieving resiliency. The one notable exception to this lack of debate involves the current discussion surrounding the federal framework for public-private partnerships in disaster management and the argument that this framework is not sustainable over the long run.²¹ This article, however, contends that public-private partnerships now have substantial strategic, operational, and tactical impacts on disaster management and that these impacts can increase societal resilience despite facing a number of challenges in the years ahead.

To understand the effects of these partnerships, it is useful to begin with the U.S. Department of Homeland Security's 2009 *Integrated Planning Strategy* (IPS), which divides organizational planning into three distinct, though interrelated tiers. The first tier, strategic planning, involves

¹⁸ Asia Pacific Economic Cooperation, *Public-Private Partnerships and Disaster Resilience*, report from APEC Workshop on Public-Private Partnerships and Disaster Resilience, Bangkok, Thailand, August 24–29, 2010, 2011; Michelle Brown and Judy Joffe, "The All-County Disaster Preparedness Team," *Risk Management Magazine*, June 2007, 8–9; State of New York, "New York State Responds: Hurricane Irene and Tropical Storm Lee: One Year Later," August 2012; Robert McCreight, "Critical Challenge: Assessing Critical Infrastructure," *Homeland Defense Journal* 6:5 (2008): 44–45; S. Shane Stovall, "Public-Private Partnerships in the 21st Century," iaem.com, n.d., available at: <http://www.iaem.com/committees/publicprivate/.../PPPInthe21stCentury.pdf>; David Rath, "Working Together," *Emergency Management magazine*, May/June 2010, 29–34.

¹⁹ Yossi Sheffi, "Supply Chain Management Under the Threat of International Terrorism," *International Journal of Logistics Management* 12:2 (2001): 1–11; David J. Closs and Edmund F. McGarrell, "Enhancing Security Throughout the Supply Chain," Special Report Series, IBM Center for the Business of Government, 2004; Goldsmith and Eggers, *Governing By Network*; Beauregard, "Public-Private Partnerships as Historical Chameleons," 52–70.

²⁰ Crystal Franco, Eric Toner, Richard Waldhorn, Thomas Inglesby, and Tara O'Toole, "The National Disaster Medical System: Past, Present, and Suggestions for the Future," *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 5:4 (2007): 319–325; Mary C. Comerio, "Public policy for reducing earthquake risks: a US perspective," *Building Research and Information* 32:5 (2005): 403–413.

²¹ The most comprehensive study of public-private partnerships in U.S. disaster management to date is Abou-bakr, *Managing Disasters*; see also Bonnie L. Regan, *Enhancing Emergency Preparedness and Response: Partnering with the Private Business Sector*, December 2009, Naval Postgraduate School Thesis, Homeland Security Digital Library, 14–15; For studies of public-non-profit partnerships in disaster management, see Naim Kapucu, "Public-Nonprofit Partnerships for Collective Action in Dynamic Contexts of Emergencies"; Naim Kapucu and Montgomery Van Wart, "The Evolving Role of the Public Sector in Managing Catastrophic Disasters: Lessons Learned," *Administration & Society* 38:3 (July 2006): 279–308; Naim Kapucu, "Non-profit response to catastrophic disasters"; Naim Kapucu, "Collaborative emergency management: better community organising, better public preparedness and response," *Disasters* 32:2 (2008): 239–262; Naim Kapucu, Maria-Elena Augustin, and Vener Garayev, "Interstate Partnerships in Emergency Management: Emergency Management Assistance Compact in Response to Catastrophic Disasters," *Public Administration Review* 69:2 (March/April 2009): 297–313; Naim Kapucu, Tolga Arslan, and Fatih Demiroz, "Collaborative emergency management and national emergency management network," *Disaster Prevention and Management* 19:4 (2010): 452–468.

decision-makers providing “overall high-level guidance for planners.”²² The second tier, operational planning, translates strategic plans into concrete actions and sequences of events.²³ The third tier, tactical planning, concerns the coordination of resources in relation to one another and in relation to natural or man-made hazards.²⁴ Using these tiers as a framework of analysis, we can see that public-private partnerships can have a substantial effect on these three organizational levels – strategic, operational, and tactical – and thus have a substantial impact on disaster management as a whole.

Strategic Effects of Public-Private Partnerships in Re-Shaping Disaster Management

Public-private partnerships can alter the strategic focus of disaster management agencies. For instance, when government views the private sector as a full partner in its efforts to mitigate, prepare for, respond to, and recover from disasters, this also means that the private sector is expected to assume a level of accountability and responsibility before, during, and after emergencies. The private sector can handle virtually any task related to emergency management, such as issuing warnings, facilitating evacuation, or organizing food service. As a result, government may find that it no longer needs to perform certain services it would typically provide to the public, because private sector entities now fill those functions. For strategic planning purposes, this means that government leaders can worry less about certain functions.

Negotiating contracts for goods and services before emergencies can streamline the strategic planning efforts for both businesses and governments. For example, when a business drafts its own strategic plan, it is helpful to know that it can expect financial returns from selling goods or services to government during disasters. For the business, this means that even if demand for products and services dries up immediately after a disaster, the government will be a customer that can be counted upon immediately after a disaster. Moreover, when government understands that it can count on firms to provide government with certain goods or services during disasters, this enables government to focus on other strategic planning priorities, as it reduces the number of resource procurement decisions that the government must make in the midst of a crisis.

Operational Effects of Public-Private Partnerships in Re-Shaping Disaster Management

Public-private partnerships can smooth the operations of disaster management agencies during normal, non-emergency circumstances. A government agency can potentially achieve its objectives more efficiently via public-private partnerships than by relying solely on its own resources and capabilities to achieve its objectives.²⁵ This has a positive effect on operational

²² U.S. Department of Homeland Security, *The Integrated Planning System*, January 2009, available at: <http://www.hlswatch.com/wp-content/uploads/2009/01/dhs-integrated-planning-system-january-2009.pdf>, 2-9.

²³ Ibid.

²⁴ Ibid., 2-10.

²⁵ For discussions of how the private sector can operate faster than the public sector, see George Boyne, “Public and Private Management: What’s the Difference?,” *Journal of Management Studies* 39:1 (2002): 97–122; Mary K. Feeney and Hal G. Rainey, “Personnel Flexibility and Red Tape in Public and Nonprofit Organizations: Distinctions

efficiency in disaster management. It means that the government agency can respond faster to community needs.

Public-private partnerships can also make disaster management operations more flexible. Private sector consultants can be quickly hired for project-oriented purposes, and can be discharged once the project is complete, or kept on board in order to provide consulting services on other projects. In this way, private sector consultants provide a scalable asset that can be used to supplement government workers on specific disaster management projects in need of attention. The reason for this organizational flexibility is that the private sector does not require the same level of internal administrative oversight that public agencies require.²⁶ If a large disaster management agency with multiple divisions needs a team of private sector consultants to move from one division to another, then private sector consultants can jump across divisions faster and more efficiently than government employees, because they require less paperwork to be completed in order to move laterally within an organization.²⁷ The speed with which these private sector consultants can be shifted from one division to another is ultimately advantageous for the disaster management agency.

Tactical Effects of Public-Private Partnerships in Re-Shaping Disaster Management

Public-private partnerships play a significant role in tactical response to emergencies, and thus contribute in a powerful way to strengthening resilience. After Hurricane Katrina struck the Gulf Coast in 2005, Wal-Mart played a vital part in distributing relief supplies to Gulf residents.²⁸ During the 2010 Deepwater Horizon oil spill firms such as Nalco, which manufactures oil dispersants, worked closely with government to help with cleanup efforts.²⁹ As we noted at the beginning of this article, businesses are helping to bring needed redevelopment investments back to Joplin, Missouri after a devastating tornado. Since Hurricane Sandy leveled significant portions of the New Jersey shoreline and New York City's outer boroughs in late 2012, there is a flurry of renewed focus on how public-private partnerships can help the communities affected by

Due to Institutional and Political Accountability," *Journal of Public Administration Research & Theory* 20:4 (2010): 801–826; For a discussion of how public-private partnerships can improve efficiency, see David Parker and Keith Hartley, "Transaction costs, relational contracting and public private partnerships: a case study of UK defence," *Journal of Purchasing and Supply Management* 9:3 (2003): 103.

²⁶ Boyne, "Public and Private Management"; Feeney and Rainey, "Personnel Flexibility."

²⁷ Ibid.

²⁸ Ben Worthen, "How Wal-Mart Beat Feds to New Orleans," *cio.com*, November 1, 2005, available at: http://www.cio.com/article/13532/How_Wal_Mart_Beat_Feds_to_New_Orleans; "Media Information: Wal-Mart's Response to Hurricane Katrina," *Walmart.com*, n.d., available at: <http://news.walmart.com/news-archive/2005/09/04/media-information-wal-marts-response-to-hurricane-katrina>; Parija Bhatnagar, "Wal-Mart redeems itself, but what's next," *cnn.com*, September 9, 2005, available at: http://money.cnn.com/2005/09/09/news/fortune500/walmart_image/index.htm.

²⁹ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and The Future of Offshore Drilling – Report to the President*, January 2011, available at: http://www.oilspillcommission.gov/sites/default/files/documents/DEEPWATER_ReporttothePresident_FINAL.pdf, 140, 145.

Sandy to recover faster.³⁰ It is clear that both businesses and government need to be involved in tactical decision-making during and after disasters. Better synchronizing public and private sector contributions will result in greater community resilience.

How Public-Private Partnerships Strengthen Community Resilience

Partnerships between firms and government are re-shaping disaster management strategy, operations, and tactics. These effects combine to strengthen community resilience in the face of disasters in multiple ways. Strategically, when firms and government partner together, this arrangement can re-shape the focus of government agencies involved in disaster management. Public-private partnerships reduce the burdens placed upon government to provide certain goods and services over time, permitting the public sector to focus on other important strategic priorities. Operationally, cross-sector partnerships enable government agencies to move internal resources rapidly, making the system more responsive to changing community needs. Tactically, public-private partnerships play a substantial role in responding to and recovering from disasters. These partnerships can help to deliver needed goods and services to affected communities with greater efficiency. In aggregate, these strategic, operational, and tactical changes help communities to bounce back faster from disasters.

Opportunities for Public-Private Partnerships in Disaster Management

As public-private partnerships continue to influence disaster management nationwide, businesses and government have a number of opportunities to expand and deepen their cooperation with one another. This cooperation enhances resilience by helping to synchronize the actions of public sector agencies and private firms in disaster management. Working in a more coordinated fashion also reduces duplication of effort, improving efficiency and helping to return communities affected by disasters to a state of normalcy faster than either government or businesses acting independently. Of the many opportunities that businesses and government now have to enhance their partnerships for disaster management, this article will focus on three areas in this section: defining expectations for partnerships, preserving partnerships forged during emergencies, and expanding the role of firms in shaping public policy.

Defining Expectations Can Increase the Value of Public-Private Partnerships in Disaster Management

There is now an excellent opportunity for public and private sector actors to define their expectations for public-private partnerships more clearly. Recent research on public-private partnerships for disaster management suggests that if businesses and government take the time to clearly define what a partnership is – that is, spelling out the desires of both public and private sectors actors in the partnership – then this reduces the chances of either party violating the

³⁰ Marianne Lavell, “Can Hurricane Sandy Shed Light on Curbing Power Outages?,” Nationalgeographic.com, November 2, 2012, available at: <http://news.nationalgeographic.com/news/energy/2012/11/121102-hurricane-sandy-power-outages/>; Jonathan Lemire, “Feds’ secretary to oversee response to Hurricane Sandy vows not to let New York down,” *New York Daily News*, December 2, 2012, available at: <http://www.nydailynews.com/new-york/feds-secretary-oversee-response-hurricane-sandy-vows-new-york-article-1.1211585>; “Time for National Catastrophe Fund,” Herald-Tribune Media Group, November 1, 2012, available at: <http://www.heraldtribune.com/article/20121101/OPINION/311019996>.

other's expectations.³¹ If both government and businesses take advantage of the opportunity to better define these expectations, they can create a stronger structural framework for the partnership that expands and deepens over time.

In recent years, despite an emerging consensus among scholars and practitioners about the *need* for public-private partnerships in disaster management, there is still no clear agreement on what public-private partnerships actually *are*. Ami J. Abou-bakr at King's College London notes that poorly defined public-private partnerships help to explain why many public-private partnerships fall short of expectations.³² Moreover, Thomson, Perry, and Miller point out that despite the proliferation of organizational networks today, it is difficult to measure collaboration because there is no consensus on what collaboration is or how to measure it.³³ Provan and Kenis define three distinct types of network governance – that is, program administration by multiple organizations – yet these are only a few of the potential models for public-private sector collaboration in disaster management.³⁴ Robinson and Gaddis identify multiple forms of collaboration using post-disaster surveys, and they suggest that opportunity costs should be considered in measuring collaboration among organizations.³⁵ Of particular note is that, according to Robinson and Gaddis: “There is a sense that ‘parallel play’ represented by mere communication, information provision, or contact is not enough [to constitute collaboration]—*even if it is frequent.*”³⁶

The authors of this present study agree that it can be difficult to distinguish between genuine partnership and “parallel play,” particularly when the level of interaction between a public and private entity is relatively low. But at the same time, *frequent* communication, information sharing, and inter-organizational contact certainly qualifies as a partnership, because these are indicators of a convergence in organizational objectives, just as fever, sneezing, and weakness are indicators of human illness. To label these organizational behaviors as “parallel play” overlooks the many forms and degrees of public-private partnerships, and it implies that only certain kinds of high-opportunity-cost activities should qualify as partnerships. Labeling frequent interaction between public and private entities as “parallel play” misses the mark—this *is* a form of partnership, even if it does not come at great cost for participants in the partnership.

Despite this article's disagreement with Robinson and Gaddis' argument, it is acknowledged that public and private sector participants need to define clearly what they want and expect from a partnership. When expectations for public-private partnerships are not well defined by partnership participants, the potential for inter-organizational conflict grows. No partner can be

³¹ For a classic treatment of how poorly defined expectations can contribute to inter-organizational conflict, see Louis R. Pondy, “Organizational Conflict: Concepts and Models,” *Administrative Science Quarterly* 12:12 (September 1967): 300, 314; see also Abou-bakr, *Managing Disasters*, 188–193.

³² Abou-bakr, *Managing Disasters*, 188–193.

³³ Ann Marie Thomson, James L. Perry, and Theodore K. Miller, “Conceptualizing and Measuring Collaboration,” *Journal of Public Administration Research and Theory* 19:1 (2009): 23–56.

³⁴ Keith G. Provan and Patrick Kenis, “Modes of Network Governance: Structure, Management, and Effectiveness,” *Journal of Public Administration Research and Theory* 18:2 (2008): 229–252.

³⁵ Scott E. Robinson and Benjamin S. Gaddis, “Seeing Past Parallel Play: Survey Measures of Collaboration in Disaster Situations,” *The Policy Studies Journal* 40:2 (2012): 256–273.

³⁶ *Ibid.*, 260, emphasis ours.

entirely sure that the other partners understand its needs. Resentment between organizations' employees can increase. Trust, which is essential for effective partnerships, erodes. All of these possibilities can rot a public-private partnership from within. And in the extreme, they can end the partnership altogether. To avoid this possibility, public and private sector partners can look to an excellent example of how expectations can be clearly established in a public-private partnership: the New York Police Department's (NYPD) *Shield* program.

The NYPD *Shield* program brings together public and private sector entities to facilitate information sharing for security purposes.³⁷ For instance, if a New York City business owner wishes to become part of the program, he can apply to be a member of NYPD *Shield* online.³⁸ Notably, the NYPD *Shield* website clearly states the benefits of the program for business owners, and it sets expectations for business owners that participate in the program:

“NYPD *Shield* is a two-way street; the key to success is for information to flow in two directions. Private sector personnel are well situated to serve as eyes and ears of the NYPD. We ask your assistance in the fight against terrorism by reporting suspicious behavior as soon as possible.

In addition, we recognize that our private sector partners are uniquely qualified to assist NYPD personnel during counterterrorism deployments. Your personnel know your buildings, blocks and neighborhoods from a different perspective. You know what belongs and what is out of place. We urge you and your staff to speak with the police officers you see on the street, particularly those assigned to posts in the vicinity of sensitive and critical locations. Sharing your perspective can help us be more effective.”³⁹

By stating clearly what its expectations are up front, the NYPD can count on NYPD *Shield* program members being better informed, and thus being better able to provide information to the NYPD on suspicious activity. This reduces the potential for business owners to notify the NYPD of extraneous or less-than-useful information, which saves NYPD personnel time and money. For business owners, this creates a clearer sense of what is required of them, which can improve efficiency, and reduce the time burden required of them to report suspicious activity. In return for their cooperation in the NYPD *Shield* program, the NYPD provides program participants with certain benefits, which it also lists clearly on the *Shield* program website:

- In-person intelligence and threat briefings conducted by Counterterrorism Bureau and Intelligence Division personnel
- Informal conferrals with Patrol Borough Counterterrorism Coordinators
- NYPD Website postings
- Shield Alert e-mail messages⁴⁰

³⁷ New York Police Department, “NYPD Shield,” 2006, available at: <http://www.nypdshield.org/public/about.aspx>.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

By identifying the benefits of participating in the *Shield* program, the NYPD lets business owners know what they can get out of the partnership. This reduces the potential for business owners to become resentful of the NYPD, because business owners know exactly what they can expect (and not expect) from the NYPD in return for their participation in the *Shield* program. By establishing clear expectations and responsibilities for *Shield* program participants, the NYPD laid the groundwork for a highly successful program. As a result, the *Shield* program has been recognized as a model for public-private partnerships and has been adopted by additional law enforcement agencies.⁴¹ In 2011, the program was awarded the Matthew Simeone Award by the security professional organization ASIS for demonstrating “an innovative approach to successful problem resolution, effective executive leadership and a willingness of all partners to share information.”⁴² Other public-private partnerships could potentially benefit from the NYPD *Shield* program’s clear and systematic approach.

Preserving and Enhancing Partnerships Formed During Emergencies Can Increase Resilience

Sometimes an emergency will require public and private sector organizations to immediately collaborate, even when they have no previous history of collaboration. Peter J. Denning at the Naval Postgraduate School calls this type of near-instant collaboration a “hastily-formed network,” which is a form of public-private partnership.⁴³ There is potential for these hastily formed networks to continue, even after an emergency ends. This can increase societal resilience, because it forms lasting ties between key community stakeholders in disaster management. But without a concerted effort to sustain hastily formed networks, it is not reasonable to expect them to continue. Businesses and government agencies should embrace the chance to sustain hastily formed partnerships, because this can ultimately benefit both sectors in the long run. To effectively sustain hastily formed networks will require both parties to carefully analyze the incentives, penalties, and social factors that contribute to the partnership itself.

Incentives in hastily formed networks can include a combination of financial and non-financial factors. A business may find that, because of its work with a public sector organization, it is able to accomplish more – and even profit – from ongoing collaboration with government. In this case, from a financial perspective, it makes great sense for the business to continue to partner with government. A government agency could find that developing a more stable relationship with a business can provide the government agency with needed resources and expertise. These types of services can sometimes come at a lower cost, and with greater efficiency, than if public sector employees performed them. Given these circumstances, a government agency might recognize that there is value in partnering with a business, and this recognition provides the

⁴¹ Oksana Farber, “NYPD SHIELD - An Outstanding Achievement in Public / Private Cooperation for Public Safety,” ASIS International, New York City Chapter, April 2, 2007, available at: http://www.asisnyc.org/articles/2007_04_02.htm.

⁴² “ASIS Awards NYPD Shield for Excellence in Public Private Partnership at Orlando Convention,” Security-today.com, July 28, 2011, available at: <http://security-today.com/articles/2011/07/28/asis-awards-nypd-shield-for-excellence-in-public-private-partnership-at-orlando-convention.aspx>.

⁴³ Peter J. Denning, “Hastily Formed Networks,” *Communications of the ACM* 49:4 (April 2006): 15–16.

government agency with just the “push” that it needs to sustain a hastily formed network with a private sector counterpart.

Viewed another way, the penalties associated with *not* sustaining a hastily formed network can also be compelling for public and private sector entities. For example, a disaster that suddenly requires a government agency and a business to work together could prompt both to recognize that they *must* continue to work together. It may well have been a failure to work together that led to the disaster in the first place. If this is the case, then the disaster itself can be viewed as one consequence of the government agency and the business not collaborating.

The 9/11 terrorist attacks are an extreme recent example of this type of consequence. Government agencies responsible for counterterrorism largely failed to share timely, accurate, useful information with one another leading up to the 9/11 terrorist attacks.⁴⁴ This failure to share information was a significant contributing factor in al-Qaeda’s ability to pull off the 9/11 attacks successfully.⁴⁵ In the wake of the attacks, the 9/11 Commission underlined that the government needed to share information more effectively to avoid similar terrorist attacks in the future.⁴⁶ Partly as a result of the 9/11 Commission’s findings, the federal government created the Information Sharing Environment (ISE). The ISE is an initiative to help facilitate better information sharing among government agencies, as well as between government agencies and private sector partners.⁴⁷ Moreover, in 2008, the Department of Homeland Security (DHS) noted in its own *Information Sharing Strategy* that it needs to develop better information sharing relationships with government agencies and businesses.⁴⁸ Both the creation of the ISE and DHS’ *Information Sharing Strategy* serve to improve public-private sector information sharing and cooperation. U.S. counterterrorism agencies recognize that they run the risk of a horrific consequence for not sharing information: terrorists killing people and destroying property. And as a result, they have made great strides in sharing information since 2001. While the 9/11 attacks are a more extreme example of what can happen when organizations do not share information effectively, they also show how hastily formed networks can continue well after the emergency that created them ends.

There is a third set of variables associated with sustained cooperation that can be called social factors. In most of the literature on cooperation among individuals and organizations, there is a focus upon incentives and penalties for behavior. Recently, however, a new set of motivations emerges in the literature: social factors that are associated with self-motivated cooperation. Tom R. Tyler, a psychologist at Yale University, notes that variables like clear and fair-minded organizational policies and procedures, as well as more personal variables, like transparent, rule-based decision-making, soliciting input from employees, and demonstrating how employee input

⁴⁴ National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report* (Executive Summary), 2004, available at: http://govinfo.library.unt.edu/911/report/911Report_Exec.pdf.

⁴⁵ Ibid.

⁴⁶ National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report* (Full Report), 2004, available at: <http://govinfo.library.unt.edu/911/report/911Report.pdf>, 416–419.

⁴⁷ The White House, *National Strategy for Information Sharing*, October 2007, available at: <http://www.fas.org/sgp/library/infoshare.pdf>, 10.

⁴⁸ U.S. Department of Homeland Security, *Department of Homeland Security Information Sharing Strategy*, April 18, 2008, available at: http://www.dhs.gov/xlibrary/assets/dhs_information_sharing_strategy.pdf, 2.

has contributed to decision-making, all have a role in motivating people to cooperate with one another.⁴⁹ Tyler's insights can be applied to sustaining hastily formed partnerships between the public and private sectors. They suggest that partnerships that have clearly defined expectations, that are rooted in values like honesty, respect, empathy, and trust, and that reach joint decisions using predictable guidelines and facts have a better chance of sustained success. The parties to these partnerships – organizational leaders and line-level employees alike – are more likely to act for the good of the partnership itself under these circumstances, and will do so in a way that is largely self-motivated, rather than driven by incentives or penalties.⁵⁰

Opportunities for Businesses to Influence Government Disaster Management Policy

Given the widespread influence of firms on disaster management today, it also makes sense for businesses to play a role in shaping public policy. When businesses and government collaborate to make public policy, this can provide both the public and private sectors with distinct benefits, and make the policies themselves more effective than they might have been absent this collaboration.

One way firms can influence public policy is by setting expectations with government. For example, utility companies know that disasters can damage or destroy their infrastructure. Electrical transformers short out. Gas mains blow up. Water lines crack. When disasters happen, they disrupt service to utility customers. And customers must wait for utility companies to restore service of electricity, gas, or water. This sets up a three-way tension between utility companies, the public, and government. Companies want to restore service quickly, but also want to do so at low cost. The public wants the services restored as quickly as possible, regardless of the cost to the firm. Government officials pressure utility companies to work faster if citizens complain about slow service restoration.

To avoid the possibility of an ugly public confrontation between government and utility companies, the public and private sectors can collaborate to shape disaster management policy. Utility companies can share their own emergency management plans with government counterparts, and government can exchange its plans with firms. This permits greater coordination of disaster management activities between utility companies and government. Over time, this coordination can “crystallize” and help to shape public policy. This process is being increasingly implemented nationally. For example, in the Portland, Oregon metropolitan area, close coordination between utility companies and local government officials has been formalized and codified in emergency plans.⁵¹ This type of coordination also helps government officials to set expectations with the public about restoration of utilities. It can be very helpful for elected officials at press conferences to make statements like the following: “Utility companies are working hard to restore service to affected areas. At the same time, however, residents should be

⁴⁹ Tom R. Tyler, *Why People Cooperate: The Role of Social Motivations* (Princeton: Princeton University Press, 2011).

⁵⁰ *Ibid.*, 157–166.

⁵¹ Office of Consolidated Emergency Management, Washington County, Oregon, “Regional Utility Coordination Plan,” February 14, 2005, available at: http://www.ocem.org/Plans/Regional_UTILITY_Coord_Plan_no_Tab_A.pdf.

aware that this is a very challenging environment, and power may not be restored for over a week.” When government officials can set expectations in this manner, it eases public pressure on utility companies, and can help to assure the public that service is going to be restored quickly.

Additionally, this coordination reduces the likelihood of citizen complaints to utility companies about service not being restored after a disaster. Since the general public’s expectations are set up front, then residents should expect that it will actually take a week to restore service – there is no guesswork involved about the timeframe for service restoration. But if the government were to *not* set expectations with the public, then the public perception of both government and utility companies would be affected. If there are delays in restoring service, then the public may think that government officials are not looking out for its interests. Moreover, the public may believe that utility companies are unresponsive or incompetent. But public-private sector collaboration leads to clearer public expectations, which can help to produce better outcomes for government, businesses, and the general public.

A second way that firms can influence public policy is by acting as team members with government during disasters. Government often looks to businesses to provide certain products or services during disasters like food, building supplies, and shelter equipment. When firms play this kind of role during disasters, they naturally influence public policy because of their proximity to government activities during disasters. By partnering in this way, government gains a sense of what is feasible – and what is not feasible – based upon what businesses say that they can and cannot deliver, and what the businesses actually do or do not deliver.

For example, in August 2007 a bridge along Interstate 35 in Minneapolis, Minnesota collapsed into the Mississippi River.⁵² Dozens of cars that had been traveling along the bridge sank to the bottom of the river. Huge chunks of steel and concrete from the bridge blocked ship traffic along the river. Local government officials contracted with a private firm, Carl Bolander and Sons, to remove this debris from the river.⁵³ Contracting with Carl Bolander and Sons gave government agencies added flexibility to focus on search and rescue efforts, and to provide support to survivors and their families.⁵⁴

Today, public-private partnerships can continue to shape public policy related to disaster management. We are not suggesting that government should abdicate its role in making public policy, nor are we suggesting that policymaking itself be somehow outsourced to the private sector. But we do believe that public policy is ultimately better when firms have a seat at the table.⁵⁵ Businesses can provide government officials with input on their own needs and

⁵² National Transportation Safety Board, *Collapse of I-35W Highway Bridge, Minneapolis, Minnesota, August 1, 2007*, November 14, 2008, available at: <http://www.ntsb.gov/doclib/reports/2008/HAR0803.pdf>.

⁵³ “Solid Waste Industry There at Time of National Crisis,” Environmentalistseveryday.org, 2013, available at: <http://www.environmentalistseveryday.org/solid-waste-management/green-waste-industry-professionals/i-35-bridge-demolition.php>.

⁵⁴ Federal Emergency Management Agency, *I-35W Bridge Collapse and Response, Minneapolis, Minnesota, August 2007*, available at: http://www.usfa.fema.gov/downloads/pdf/publications/tr_166.pdf, 20.

⁵⁵ For examples of how firms can influence government homeland security policy, see Busch and Givens, “Public-Private Partnerships in Homeland Security: Opportunities and Challenges,” 8–9; Jon D. Michaels, “Deputizing

aspirations. This leads to more thoughtfully crafted policy that includes a wider variety of stakeholder viewpoints. By including businesses in public policymaking, government, the private sector, and the general public all benefit.

Government and businesses now have a wide range of opportunities to deepen and strengthen their public-private partnerships for disaster management. Whether in defining expectations for public-private partnerships, bolstering partnerships forged during emergencies, or shaping public policy, public-private partnerships in disaster management are well positioned to enhance resilience in the coming years.

Challenges for Public-Private Partnerships in Disaster Management

Although numerous opportunities exist for public-private partnerships in disaster management, businesses and government will still need to navigate multiple challenges in order for these partnerships to prove successful over the long run. Below we address three of these challenges: ill-defined expectations, free riders, and prisoners' dilemmas; problems with accountability, and the "hollowing out" effect. This is not a comprehensive list of all the challenges that public-private partnerships in disaster management face, but it does illustrate the diverse types and degrees of challenges that businesses and government will have to work through over time.

Ill-Defined Expectations, Free Riders, and Prisoners' Dilemmas

As discussed above, the public and private sector actors need to define more fully what they each want to achieve from partnerships in disaster management. Unless the expectations and responsibilities are clearly established ahead of time, the partnership can encounter "free-rider" and "prisoners' dilemma" scenarios that can undermine the partnership or even scuttle it altogether.

In a "free-rider" scenario, one partner may exert less effort in the knowledge that the other partner will exert more effort to achieve the goals of the partnership.⁵⁶ Although this may be in the interest of the "free-rider," the other partner may come to resent the free rider's lack of effort. Over time this free-riding can erode the effectiveness of the partnership and even cause both partners to abandon the partnership.

The prospect of both partners abandoning the partnership becomes a potential prisoners' dilemma. In a classic prisoners' dilemma, where two suspects are interrogated by the police, each suspect could be tempted to "defect" from the partnership by blaming the other for the crime. However, if both suspects defect, they both receive a larger sentence than they otherwise would. Ill-defined expectations in a public-private partnership could lead to a similar result,

Homeland Security," *Texas Law Review* 88:7 (2010): 1435–1473; Cooper J. Strickland, "Regulation Without Agency: A Practical Response to Private Policing in United States v. Day," *North Carolina Law Review* 89 (2011): 1338–1363.

⁵⁶ Notable studies of the free rider effect include R. Marc Isaac, James M. Walker, and Susan H. Thomas, "Divergent evidence on free riding: An experimental examination of possible explanations," *Public Choice* 43:2 (1984): 113–149; James Andreoni, "Why Free Ride? Strategies and Learning in Public Goods Experiments," *Journal of Public Economics* 37:3 (1988): 291–304.

where both partners “defect” from the partnership. This scenario would end the partnership by default.

Thus, the public and private sector may have various incentives to leave their responsibilities ambiguous. But in order for public-private partnerships to be effective, public and private sector partners must agree to specific responsibilities in the context of the partnership. If they do not agree to specific responsibilities, then it is not reasonable to expect the partnership to achieve meaningful objectives.

Problems with Accountability

When businesses and government partners collaborate in disaster management, it can provide benefits for both sectors and the general public. Yet one clear challenge for these partnerships is maintaining a sense of accountability.⁵⁷ There is a question of direction and authority – that is, to what extent (if any) can a business employee influence a government employee to perform a certain action? During an oil spill emergency, for example, can an oil company employee direct a Coast Guard officer to deploy spill containment boom in a given area? Using the Incident Command System (ICS), which is DHS’ flexible, scalable, modular approach to coordinating emergency response nationwide, the answer is: yes, to some extent. But conditions are murkier in normal disaster management operations – that is, during non-emergency situations that are related to disaster management. After all, in a non-emergency situation, under what circumstances could an oil company employee direct a Coast Guard officer to perform *any* action?

There is also a question of management and oversight – how can government ensure that it remains “in charge” of emergency management if substantial responsibilities are handed to the private sector? And what does that management and oversight look like? The specific nature of public-private partnership management and oversight can vary considerably. For example, the management and oversight required in an information sharing partnership will differ from that required for a service contract.⁵⁸ Yet in order to work properly, these management and oversight functions must be built-in to public-private partnerships, regardless of the type of partnership under consideration. There is also a question of employee loyalty in public-private partnerships – how do private sector employees remain good stewards of public funds, and at the same time continue to report to private sector supervisors? There are not clear or obvious answers to any of these questions. Yet public and private sector partners will need to face these questions head on if public-private partnerships are to continue to grow and thrive in the future.

The “Hollowing Out” Effect

Many scholars study the “hollowing out” effect that can occur when government functions become privatized.⁵⁹ This effect refers to a diminishment in governmental capacity to perform in

⁵⁷ Busch and Givens, “Public-Private Partnerships in Homeland Security: Opportunities and Challenges,” 10.

⁵⁸ Management and oversight of public-private partnerships is one form of network governance. See Ismael Blanco, Vivien Lowndes, and Lawrence Pranchett, “Policy Networks and Governance Networks: Towards Greater Conceptual Clarity,” *Political Studies Review* 9:3 (2011): 301.

⁵⁹ For example, see R.A.W. Rhodes, “The Hollowing Out of the State: The Changing Nature of the Public Service in Great Britain,” *The Political Quarterly* 65:2 (1994): 138–151.

certain ways as more and more functions are moved out of government. For example, a government agency that completely outsources its food service operations becomes “hollow” in food service – that is, the agency is no longer able to independently offer food service without some kind of outside assistance from a firm. Disaster management agencies face a similar challenge in public-private partnerships.

For example, if a government agency turns over its emergency planning functions to outside consultants, this can slowly degrade the agency’s capacity to perform emergency planning over time. As emergency plans go through multiple iterations over several years, organizational knowledge of how the plans were drafted, who was involved in consultations to create the drafts, and what templates or standards were used for the drafts can erode. After all, it is not a disaster management agency employee doing the emergency planning – it is outside consultants. Moreover, the consultants who work on specific emergency planning projects can be transferred, resign, or retire prior to an emergency plan’s completion. These kinds of losses of organizational knowledge further disrupt a government agency’s ability to perform emergency planning over time.

If the agency does not retain some capacity for emergency planning then outsourcing emergency planning may become the agency’s “new normal.” Having effectively lost the ability to draft emergency plans, the agency is beholden to the private sector to do its own emergency planning. In this sense, the agency’s ability to create emergency plans has been “hollowed out.” This poses a problem for the disaster management agency, because it has effectively lost control of one of its most important functions. This puts the agency in an awkward position vis-à-vis its private sector partner, and it also raises an important question of accountability for the agency: who, precisely, is controlling the emergency planning process?

The Road Ahead: Public-Private Partnerships and the Future of Disaster Management

In recent years firms that provide valuable products and services in disasters have become the target of severe criticism. The most pointed of these critiques accuse businesses of engaging in predatory practices such as price gouging or performing services for government without a transparent bid process and at exorbitant cost to taxpayers.⁶⁰ One such critic even goes so far as to describe these companies as “disaster capitalists.”⁶¹ Although the authors of this article do not deny that these kinds of unfortunate practices can occur from time to time, the authors of this article contend that these criticisms are overstated at best and misguided at worst. When such violations of law or regulations occur, the authors of this article agree that they should be swiftly investigated and, if appropriate, severely punished. But these criticisms of the private sector’s role can also overshadow the tremendous good that public-private partnerships do for communities affected by disasters. As this article has demonstrated, these partnerships can have positive strategic, operational, and tactical impacts in disaster management. These impacts

⁶⁰ For example, see Bill Briggs, “New Jersey investigating reports of price gouging,” *Nbcnews.com*, n.d., available at: <http://www.nbcnews.com/business/new-jersey-investigating-reports-price-gouging-1C6791587>.

⁶¹ Naomi Klein, “Hurricane Sandy: beware of America’s disaster capitalists,” *The Guardian*, November 6, 2012, available at: <http://www.guardian.co.uk/commentisfree/2012/nov/06/hurricane-sandy-americas-disaster-capitalists>.

strengthen community resilience. And the increasing presence of public-private partnerships in disaster management suggests that these partnerships will be around for the foreseeable future. To maximize the long-term potential of public-private partnerships in disaster management, this article offers a few suggestions below to improve their efficiency and effectiveness:

- **Government and businesses must clearly define what they want from public-private partnerships.** Both government and businesses must resist the temptation to leave their relationships in an ambiguous state so as to minimize their contributions to the partnership while maximizing potential net gains from the partnership. Instead, they should clearly spell out what they each expect from one another in a public-private partnership. Although clearly defining expectations for public-private partnerships may reduce the potential individual net gains from a partnership, it has clear benefits, too. Well-defined expectations help to ensure that both the public and the private sector actually deliver what they are supposed to deliver, rather than putting minimal efforts into partnerships. This means that the value of the partnership as a whole is strengthened, providing mutually beneficial effects for firms and government alike.
- **Government and businesses should further develop relationships that were forged in crisis.** Government and businesses would be remiss to not cultivate new relationships with one another that are formed during shared responses to emergencies. Shared experience during crisis can help both sectors to collaborate better in the future. And while there may not be an obvious near-term payoff for this collaboration, these relationships might become valuable in the future. In this sense, there is value in building public-private sector relationships that were born of immediate necessity, because they may offer unforeseen payoffs at a later date. This is a wise investment of time and energy for the public and private sector alike.
- **Government and businesses should directly address concerns about accountability.** When businesses and government work closely together under non-emergency circumstances, the lines of organizational authority and accountability can become blurry. There are not simple solutions to the problem of accountability in public-private partnerships for disaster management, yet directly confronting the issue of accountability itself is a positive first step in tackling this challenge. The fact remains that firms are profit-driven, and have a vested interest in developing business with government. The public sector, for its part, strives to keep costs down and deliver high-value services for the public. As a first step toward better addressing accountability concerns, it is sensible for government managers to directly ask business leaders how the public sector can continue to drive down costs and deliver services while also engaging more fully with businesses. Similarly, it is reasonable for business leaders to directly ask public sector managers how they can continue to develop business with government. FEMA Administrator Craig Fugate recently noted that often government asks the private sector to support its mission during disasters, when in fact government should ask businesses how it can help businesses to re-open after a disaster. This direct engagement provides benefits for both government and businesses:

“You know for every grocery store, for every pharmacy, for every hardware store that opens up, in a disaster area, [this] means there's [sic] fewer demands for the government to provide those resources. And since the private sector already has a much more efficient mechanism for providing those services, it only makes sense to work as partners.”⁶²

This sort of direct dialogue between public and private sector leaders will not lead to quick solutions, but it will help public-private partnerships to develop more fully, while also ensuring that the individual needs of businesses and government are being met.

- **Contracts should contain clear terms and deliverables.** Contracts between the public and private sectors need to contain concrete expectations, and they should be open to transparent public oversight. Measurable deliverables in contracts hold its signatories accountable for their actions. These measurable deliverables reduce ambiguities about product and service delivery, reducing the potential for confusion and frustration in public-private partnerships. Although clear contractual terms can limit individual opportunities to free ride, they ultimately help public-private partnerships as a whole to be more beneficial for both the public and private sector.
- **Government should consider business input when creating policy.** When businesses have a seat at the table alongside government policymakers, their input can provide policymakers with new insights and awareness of issues that they may not have been privy to previously. To be clear, we are not recommending that government delegate public policymaking to the private sector, or otherwise make businesses the authors of public policy. On the contrary, to do so would clearly violate numerous legal and ethical provisions. But consulting businesses in this process can help government to craft better public policies that benefit from an additional range of private sector perspectives. Including firms in policymaking not only results in smarter policies, which benefit the general public, but it also helps to build relationships between government and businesses generally. These relationships are valuable for disaster management during non-emergency situations, and they are also helpful during active emergency response.
- **Government agencies should hire partnership-oriented managers.** How can public sector entities involved in disaster management also ensure that they maintain some degree of capacity and control over certain functions that are outsourced? To avoid the “hollowing out” effect, government agencies should recruit managers who are able to coordinate the actions of a wide range of public, private, and non-profit sector resources. Managers that can synchronize the actions of disparate actors introduce new skills, values, and practices into their organizations. Their influence can permeate the agency in which they work, which can change the agency itself from within.⁶³ Hiring managers

⁶² Federal Emergency Management Agency, “The Private Sector in Disasters: An Introduction (Transcript),” n.d., available at: http://www.fema.gov/medialibrary/media_records/1161/transcripts/1121; “The Private Sector in Disasters: An Introduction,” YouTube video, 1:24–1:54, posted by “FEMA,” September 23, 2009, available at: <http://www.youtube.com/watch?v=PxyvZcgIYog>.

⁶³ Busch and Givens, “Public-Private Partnerships in Homeland Security: Opportunities and Challenges,” 10.

with these abilities means that a disaster management agency will never be completely dependent upon firms for knowledge and expertise; they will always have an “in-house” resource with capacity to effectively supervise private sector activities. And while this does not completely eliminate the risk of the “hollowing out” effect, it does mean that government agencies involved in disaster management will be better able to maintain control of their operations over time.

Conclusion

When businesses and government collaborate it can change the strategic trajectory of disaster management as a whole. Government no longer has to view disaster management as a purely public sector responsibility. Instead, businesses and government work together in partnerships, and this cooperation changes the strategic orientation of disaster management itself, from a solely public sector activity to a shared cross-sector activity. Public-private partnerships also change the day-to-day operations of disaster management agencies and businesses, for when businesses and government work together, this alters recurring tasks like creating emergency plans, mapping out training exercises, and preparing the public for disasters. Government is able to do more with less in completing these tasks, because it can rely on businesses for information and resources. The private sector can make smarter business decisions related to disaster management because it is better informed by government representatives. Both sectors benefit operationally from working with one another.

Government and businesses repeatedly show that public-private partnerships are also beneficial for tactical decisions in disaster management. Cross-sector cooperation in response to Hurricane Katrina, the Deepwater Horizon oilrig explosion and spill, and the 2011 Joplin, Missouri tornado demonstrates that businesses can accelerate and improve response to and recovery from disasters. This underscores that when businesses and government work together in disaster management, it can deliver immediate and sometimes dramatic benefits for disaster survivors.

As disaster relief operations become more complex, there is also an increasing need for societies to become resilient in the face of disasters. And while in recent years there has been excellent progress toward this objective, we remain a far stretch from fully achieving societal resilience.⁶⁴ But public-private partnerships, if properly defined, implemented, and regulated, adapt disaster management practices to the increasing complexity of today’s large-scale emergencies. In this way, public-private partnerships bolster societal resilience. These partnerships are already helping to save lives and property, and are poised to continue doing so for years to come.

⁶⁴ Stephen Flynn, “Recalibrating Homeland Security,” *Foreign Affairs* 90:3 (May/June 2011): 130–140.