# NETWORKED STAKEHOLDERS AND LONG-TERM RECOVERY: COMMUNICATION AND ORGANIZING IN COASTAL NEW JERSEY AFTER HURRICANE SANDY

By

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A dissertation submitted to the

School of Graduate Studies

Rutgers, The State University of New Jersey

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Graduate Program in Communication, Information, and Library Studies

Written under the direction of

Dr. Marya L. Doerfel and approved by

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New Brunswick, New Jersey

October 2018

ABSTRACT OF THE DISSERTATION

Networked Stakeholders and Long-Term Recovery:
Communication and Organizing in Coastal New Jersey after Hurricane Sandy

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This dissertation addresses post-disaster long-term recovery as a communication and organizing process reliant upon networked stakeholder relationships and collaborative communication. Findings from a multiyear field study are used to propose a relational model of stakeholder theory and a theory of collaborative communication as a web of social and organizational relationships within a community or region solving complex problems of mutual concern. Stakeholder theory is reconceptualized as a framework for understanding community survivability rather than firm or organizational survivability. Advancing Nordic models of stakeholder theory, the dissertation argues that networked stakeholder relationships and collaborative communication are mutually dependent as twin concepts of collective problem-solving and relationship management. Communication practices such as meetings and face-to-face encounters are used by networked stakeholders to connect with one another and build trust, share information, allocate resources, and manage conflict. Networked stakeholder relationships take shape over time and include a mix of existing, emergent, and pre-planned organizations active within a physical community or an organizational field such as disaster recovery. The

complex problem of long-term recovery after disaster is used to generate empirical evidence from a geographically bounded region in coastal New Jersey severely impacted by Hurricane Sandy on October 29, 2012. This 5-year field study covers the period from October 30, 2012, to December 31, 2017, and includes active participant observation as a resident and organizational leader in the impacted region, ethnographic observations, and interviews as well as archival data that combine organizational documents with academic, nonprofit, and government reports. A combination of social constructivist grounded theory, abductive analysis, and social network analysis are used to analyze data. Processes, timelines, and networks of recovery in this coastal region are uncovered from the data and used to construct the models of networked stakeholder relationships and collaborative communication proposed by this study. Finally, policy implications are presented that address specific concepts for improving the processes of long-term recovery after natural disaster.

ACKNOWLEDGEMENTS

Dedicated to Laura Greenstone
the love of my life and my partner in everything

**"***Trauma is both personal and communal."*
Laura Greenstone M.S., L.P.C**.,** ATR-BC

Laura Greenstone is my partner in everything and this dissertation is as much a product of her support, inspiration, and focus as it is of my own blood, sweat, tears, and drive. In 2012 shortly after Hurricane Sandy had ripped through coastal New Jersey, Laura and I drove to the microshelter being established at our town middle school. As a disaster response crisis counselor Laura wanted to check-in with the incident commander in person since communication systems were overwhelmed and communication to the disaster response crisis counselors across the county was spotty and limited. As Laura checked in, I charged our cell phones in the hall. A tall woman came out of the gym and asked what do I do? As we talked, I said I was a Boy Scout a long-time ago. She said well, come with me then. As I followed Wendy Baggot into the gym Laura was talking with a man who I later found out was Oceanport's Director of the Office of Emergency Management, Buzzy Baldanza. Wendy put me right to work reorganizing the intake desk and recruiting more volunteers. Five-plus years later, this dissertation was completed after starting as a set of scratch notes on scratch paper on the organizing and communication processes I saw unfolding around me as I worked with an emerging team of volunteers and professionals to address the impacts of Hurricane Sandy in our town. I had no idea what my observations and hastily written jottings may have been, or where

they might lead, only that I was witnessing from the ground, if not the basement, an emergent organizing process tied in some way to an institutional framework that was itself undergoing rapid change in a compressed period of time. If not for Laura and Wendy, this project would not have been formed out of those experiences and observations. Without Laura's ongoing support and inspiration this would be a very different study of community dynamics and partnerships in communities wrestling with complex environmental change. As an art therapist, Laura's work in trauma-informed counseling and psychological first-aid helped shape my perspective on long-term recovery and community resilience. Over the last several years we talked at length about the idea of resilience; what it was, whether it was psychological, social, communicative, or perhaps all three. These conversations along with related work on resilience sciences I have been in engaged with Marya Doerfel, my adviser, helped shape my perspective on the communication and organizing processes enacted after a disaster. Laura is a healer who impacted countless lives through her work with 9/11 families, in working with families impacted by domestic and sexual violence, in her work with Sandy survivors, and in the countless hours she spent training, supervising, and working tirelessly without pay to expand the role of the creative arts therapies in healthcare and the different mental health services.

But far beyond that, Laura was my partner and the love of my life. Married in Scotland in August 2016, we were married outside an old castle, on ancient lands, on an isolated peninsula, in an economically distressed part of the Scottish Highlands, in an ancient ceremony in which Laura entered the Lamont and Harris Clans, the families of my heritage. But a funny thing happened, those we connected with and still remain in

touch with there are all actively engaged in their communities and in trying to revive the social and economic life of the Cowal Peninsula, where we were married. This summer a series of environmental art therapy sessions are being offered at Historic Kilmun, a historically important church central to community and clan life in the area. Dunans', the castle lands where Laura and I were married, and their affiliated endeavors are organized as social enterprises. Even in our romantic life, we could never escape the people and places that were community focused and concerned with social impact.

Laura's influence and my work on the impact of communication and organizing processes of long-term recovery naturally follows from my very early studies with Wilson Carey McWilliams. A political theorist, Carey was the one who first introduced me to Alexis de Tocqueville's work and to think through the many different sides of governance and democracy. Carey always stressed the importance of community for good democratic governance and civic life. It is those long-ago conversations with Carey that I turn to time and time again when wrestling with problems of cross-sector relationships and tensions between grassroots and institutional organizing processes. Without Carey and Laura, my intellectual growth would have been stunted.

Marya Doerfel has been my adviser, friend, colleague, and collaborator. She has been a constant on this journey with me, a journey harder and darker than either of us ever imagined when we first embarked on it five-years ago. Over the last five-years, through the death of my father, two major illnesses of my mother resulting in her moving into a long-term care facility, and the sudden loss of Laura from long-standing complex medical conditions, Marya has been the steady hand on the tiller guiding me through many shoals and steering me away from the rocky shoreline. Without her steady

guidance, compassion, and wisdom this journey would have been much tougher and more perilous than it has been. Marya's expert guidance led me to defend and publicly present in a way and at a time that Laura could be there. What more can one ask for? And I think we both wish now, that Laura did ask the burning question she was going to ask during the Q&A portion of my public presentation, "does this mean you will be cleaning the garage now?"

I first met Jorge Reina Schement and Nancy Kranich at an event at the MIT Media Lab when I thought my research would be related to civic media and digital organizing around complex environmental problems. Jorge and Nancy eventually became good friends with Laura and I. We connected over shared interests in art, policymaking, media, and life in general. We shared dinners together at different venues in different New Jersey coastal towns along the way. Jorge became a trusted confidant, a member of my dissertation committee, and a great source of insight, advice, and wisdom. Nancy and I talked often about policy and politics and she was an invaluable source of information, insight, and advice on community dynamics and public policy. But beyond that, we were able to simply enjoy each other's company away from the hurly burly of academic and professional commitments.

Mark Aakhus served as a constant source of clarity and provided piercing insights along the way. Mark has a way of asking questions that help break down the most complex processes and questions into simple steps that provide impactful answers. Mark has been a valued confidant, trusted adviser, and along with Marya has journeyed with me along this winding, dark path since the start of my program. Without Marks' guidance and support this would have been a much tougher journey. I first met Amy O'Connor

when displaying my first poster at the Organizational Communication Mini Conference at Purdue University. Amy asked me some great questions about this project and provided valuable suggestions on potential future directions for the work. As a member of the dissertation committee, Amy helped me think through some tricky questions and to navigate the sometimes choppy waters of mixed methods and qualitative inquiry.

For three months after Hurricane Sandy I worked together almost every day with Buzz Baldanza, Chrissy Ellam, and Wendy Baggot on our town's response to Hurricane Sandy. We worked through the emergency response, short term recovery, and into the start of the long-term recovery phases. All three of us later took on different, expanded roles in disaster response and recovery at county, regional, state, and national levels. Those shared experiences and the insights of Buzzy, Wendy, and Chrissy were important ingredients in the development of this research project and my emerging perspective on the timelines and processes of long-term recovery. This dissertation is the culmination of a long journey in which many different people shared perspectives, insights, and experiences which helped shape both my research agenda and my emergence as an organizational scholar from the wilds of strategy, competitive intelligence, and communications across the very different domains of business, nonprofits, and political campaigns.

Finally, my mom Lois Harris always ensured that I had a time and place to read and think and ponder as I was growing up and always provided me with love and support even when it was difficult for her. My father, Jack Harris, was one of my most enthusiastic supporters and my biggest fan as I made this mid-career shift to scholarship and research. I only wish that he could have seen the culmination of this work. My

children Bryant and Colleen inspire me every day and are the North Star by which I navigate even in the darkest of times and in the most perilous of waters. Bryant is a journalist and Colleen a nonprofit professional, which I often times find ironic and funny given my scholarly interests and previous work experiences.

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| | |
|---|---|
| COAD | community organizations active in disaster |
| DHS | U.S. Department of Health and Human Services |
| EOP | Emergency operations plan |
| FBO | faith-based organization |
| FDRC | federal disaster recovery coordinator |
| FEMA | Federal Emergency Management Administration |
| GAO | U.S. Government Accountability Office |
| HUD | U.S. Department of Housing and Urban Development |
| ICS | incident command system |
| LTRG | long-term recovery group |
| MNCOAD | Monmouth Coalition of Organizations Active in Disaster |
| NFIP | National Flood Insurance Program |
| NGO | nongovernmental organization |
| NIMS | National Incident Management System |
| NJVOAD | New Jersey Voluntary Organizations Active in Disaster |
| NPO | Nonprofit organization |
| NVOAD | National voluntary organizations active in disaster |
| OCLTRG | Orange County Long-Term Recovery Group |
| RREM | New Jersey Residential, Reconstruction, Elevation, and Mitigation |
| SSM | symbiotic sustainability model |
| UMCORE | United Methodist Relief Organization |
| VOAD | Voluntary organizations active in disaster |

# CHAPTER 1

# INTRODUCTION

> "I wanted to tell them what was coming, but I just couldn't," he said. "I wanted to tell them the hurricane is the easy part. That their lives were going to miserable, pure hell for the next 5 years. That 'recovery' is like slow and grinding . . . it's like watching a car crash in slow motion, over and over again." (Doug Quinn, *Star Ledger*, September 21, 2017)

Long-term recovery is an under-studied social and organizational phenomenon that is becoming increasingly important as the size, frequency, and intensity of storms increase. Long-term recovery is under-studied in both the academic and professional literatures and is often lumped together with emergency response and the whole community framework of disaster recovery overseen by the Federal Emergency Management Agency (FEMA). Five years of field research in coastal New Jersey have uncovered a timeline of long-term recovery and an evolving set of relationships that sequences the organizational activities of long-term recovery over time. These evolving relationships, organizational activities, and multiyear timeline are core parts of a process of long-term recovery and shape the organizational landscape of disaster-impacted communities.

This study uses a framework of networked stakeholder relationships to develop a theory of collaborative communication during long-term recovery in disaster-impacted communities. *Collaborative communication* is a communication and organizing process in which information is shared, resources exchanged, goals set, and decisions made concerning organizational assistance in Sandy-impacted communities. It is a networked communication practice in which organizational relationships become the prime driver of long-term recovery and in which problems are identified and solved jointly. These

organizational relationships may be emergent or planned and, in some cases, serve as the underlying set of community relationships that address critical issues such as housing, community development, social services, and mental health. The study highlights the organizational landscape and organizational sequencing of activities present in processes of long-term recovery to develop a framework of networked stakeholder relationships that informs multi-stakeholder collaboration. Using classic and contemporary theories of stakeholder relationships, processes of long-term recovery are developed that include timelines of recovery and organizational activities. These networked stakeholder relationships comprise an organizational landscape within coastal New Jersey, a region heavily impacted by Hurricane Sandy. Networked stakeholder relationships themselves are embedded within the larger set of community and social relationships which comprise the coastal New Jersey community.

The research site encompasses the broad set of counties and towns that range from the Raritan Bay in the northeast to the Delaware Bay in the southeast. The New Jersey tradition of home rule (Karcher, 1998), which has resulted in a large number of municipalities and other taxing districts, makes it difficult to locate enough organizations in each specific community to conduct a town-by-town comparison of organizational relationships, long-term recovery activities, and the role of social capital in recovery. In fact, in many other states, these independent municipalities grappling with recovery from Hurricane Sandy would be neighborhoods or communities within larger cities or metropolitan regions rather than self-governed entities. To address this constraint, the region was bounded geographically and treated as a single community. As a resident of one of these impacted communities active in both emergency response and long-term

recovery, the immersive, reflexive fieldwork that generated observations, interviews, and documents was the primary research method employed within this study.

Similar to studies conducted by Small (2009a, 2009b), this is an epistemologically pluralistic study that employs multiple types of data and uses different methods of analysis for different types of data. Following good mixed method and qualitative network analysis procedures, this study uses multiple methods to triangulate multiple sources of data to develop the organizational landscape of long-term recovery in coastal New Jersey (Creswell & Clark Plano, 2011; Hollstein, 2014). However, rather than a classic mixed methods study in which research design, data collection, methods, and analysis are integrated at the inception of the study (Creswell & Clark Plano, 2011), this study uses a social constructionist grounded theory framework (Charmaz, 2014) and relies on abductive theorizing (Charmaz, 2016; Swedberg, 2016; Timmermans & Tavory, 2012) to generate empirical findings and a theory of long-term recovery as a function of networked stakeholder relationships established through collaborative communication. Abductive theorizing using social constructionist grounded theory lends itself to a reflexive fieldwork study in which the researcher is immersed within the research site, not only as a researcher, but also as a resident, community leader, and a participant in the recovery of the community.

Like Small's (2009b) study of networked inequalities in New York City childcare centers, this study also began with a hunch. Small's analysis of the role of organizational embeddedness in connecting parents of children in neighborhood childcare centers with a broad range of resources began with fieldwork in an unrelated city. Small was tasked with developing an overview of urban conditions by connecting with local institutions.

As Small entered a neighborhood childcare center, Small observed that the childcare center was providing services well beyond childcare to the parents. These observations of social and organizational interactions in combination with interviews of social workers led Small to begin thinking through the role of organizations in social and organizational relationships in urban neighborhoods and the ways in which organizations—rather than people—may build social capital (Small, 2009b, pp. 201–204).

On October 30, 2012, I entered the middle school in my Sandy-impacted town to charge my phone while my girlfriend, now wife, went to check in face-to-face (because communication systems were overloaded) to see if disaster response crisis counselors (DRCCs) were needed. A volunteer approached me while I was charging my phone and asked what kind of work I did. I mumbled something about strategic communications, consulting, and teaching. She asked what skills I had, and I mentioned communication and some project management. After a pause, I joked and said I was a Boy Scout a long time ago. She said, “Perfect! Come with me.” Within 24 hours, I was recruiting additional volunteers to help staff the microshelter, handling communication with the press and with the Red Cross’ media relations and volunteer liaisons, coordinating food runs to a local supermarket, and unloading vans from the county park system with a local Boy Scout troop, while in the microshelter, emergent activities became visible and planned activities rapidly changed. New organizations were created to fill in the gaps in recovery in the small New Jersey communities impacted by Hurricane Sandy, and larger patterns of organizational emergence across the region became visible as our community began to connect with other communities in the days and weeks after landfall of Hurricane Sandy.

As my response and recovery activities expanded from days to weeks, months, and years and I took on leadership roles in community organizations active in disaster recovery and planning, the emergence and change of stakeholder relationships at different points in time became visible. Organizations and volunteers became less active as months turned into years. I began to suspect that the recovery process had distinct rhythms, that seemingly finite deadlines were movable, and that the end state of long-term recovery was elusive and undefined. While FEMA (2008, 2011, 2012, 2013, 2016) has a commonly used framework of four phases of disaster response—mitigation, preparedness, response, and recovery—which are cyclical, a recovery framework that accounted for organizational interactions and the sequencing of organizational activities and capabilities over a multiyear period of long-term recovery was not evident. What is missing in analysis of long-term recovery is the change in organizational roles and tasks over time and the collaborative mechanisms by which organizations solve problems of long-term recovery in impacted communities together.

Digging into the literature on long-term recovery revealed a relatively sparse body of literature. Observations, field notes, interviews, and organizational documents were used to begin to frame the ideas of timelines, processes, and networks of long-term recovery. This study employs participant observation, observations, conversations, semi-structured interviews, and network analysis to develop a framework of networked stakeholder relationships created through a sequence of communication and organizing activities over time. What this study elicits from the data is a process of long-term recovery, an understanding of the timelines of recovery based upon organizational

activities conducted in the coastal New Jersey region between 2012 and 2017, and a preliminary framework of the networks of recovery identified in the region.

Using a model of stakeholder theory that moves beyond the classic Anglo-American models of primary and secondary stakeholders (Strand & Freeman, 2015), this study frames stakeholders as part of a relational process in which organizational partnering decisions are driven by the specific needs of communities and residents engaged in long-term recovery. Stakeholder theory is a useful framework for analyzing long-term recovery because it provides multiple models from which to analyze the communication and organizing processes of long-term recovery. In addition to the primary and secondary stakeholder models initially articulated by R. E. Freeman (1984) and others (R. E. Freeman, Harr, son, Wicks, Parmer, & de Colle, 2010; R. E. Freeman, Wicks, & Parmar, 2004; Strand & Freeman, 2015), different countries and regions may also frame stakeholders as political citizenship (Byrkjeflot, 2003) or as cooperative relationships that build consensus (Byrkjeflot, 2003; G. Jackson, 2005). Natural resources management uses stakeholder frameworks to identify those impacted by particular public policy, planning, and land use decisions, especially those who may be sidelined in the decision-making process or otherwise underrepresented (Reed et al., 2009; Scott & Oelofse, 2005).

Ultimately though, stakeholder relationships are about communication—which, in turn, is ultimately about norms of shared decision making and negotiation. Whereas stakeholder theory may often be associated with value, for instance, how do stakeholders create shared value together (M. E. Porter & Kramer, 2011), Deetz (1992, 1995, 2017) argued for a stakeholder framework that moves beyond value chains and strategic

alliances to a focus on collaborative communication across sectors, with each stakeholder considering the interrelated set of organizational issues, interorganizational relationships, and social concerns on which each stakeholder is focused. Stakeholders engage each other through a network of communication practices including meetings, digital communication, and face-to-face encounters. These communication practices, in turn, initiate connections or relationships among stakeholders with different sets of skills, expertise, competencies, information, or material resources (Monge & Contractor, 2003). Network theory is important for understanding the complex set of interrelationships among organizations that occur during disaster response and recovery. Every community has some version of a civic network that emerges from the social and organizational relationships within that community (Diani, 2015; Galaskiewicz, 1979, 2016). These existing civic networks play an important role in long-term recovery. Stakeholders active in existing civic networks may already have knowledge of each other's expertise, resources, and working styles. They may also be aware of gaps in the resources or know-how of their community that require outside organizations to fill in the gaps. These outside organizations may be either regional or national disaster relief organizations or even new organizations that "pop up" in neighborhoods and communities to address local needs that are not being addressed by larger government or nonprofit disaster response agencies.

This study develops a framework of networked stakeholders that serve as core social and organizational resources for communities recovering from disaster. While not a stakeholder network that can be measured and defined using the traditional tools of network analysis, the networked stakeholders framework does three things: (a) redefines

stakeholders as multiple interrelated relationships rather than one-to-one relationships between primary and secondary stakeholders, (b) applies stakeholder theory to the problem of long-term recovery after disaster, and (c) highlights the role of collaborative communication as a key communication and organizing process for networked stakeholders active in long-term recovery after disaster. Long-term recovery is a multifaceted, multiyear process and requires a multiple-method, multi-theoretical framework for understanding the communication and organizing processes that underlay processes of long-term recovery from a natural disaster such as Hurricane Sandy.

# CHAPTER 2

# STAKEHOLDERS AND LONG-TERM RECOVERY

Stakeholder relationships provide a way of thinking about the interconnected nature of economic and social life and the patterns of organizational relationships that influence organizational action. Stakeholder theory wrestles with questions of representation and value within market environments and with processes of collaborative governance and collaborative communication within the broader socioeconomic environment. More specifically, within processes of disaster response and long-term recovery, networked stakeholder relationships are increasingly used to supplement the more institutional responses from government agencies and formally chartered nongovernmental organizations (NGOs) such as the American Red Cross. Processes of long-term recovery after disaster can be analyzed as networked stakeholder relationships specific to a community or region.

Within the organizational field of disaster relief and recovery organizations, there are a variety of organizational logics at play that represent a wide spectrum of organizational missions, service delivery models, and organizational relationships active in the disaster zone (Doerfel, Lai, & Chewning, 2010; Harris, Carestia, & Fedorova 2017; Majchrzak, Jarvenpaa, & Hollingshead, 2007). While nonprofit organizations tend to dominate the disaster relief and recovery field both nationally and internationally, public- and private sector organizations play a major role in emergency response and long-term recovery. Disaster relief and recovery organizations include public agencies such as FEMA, the U.S. Department of Homeland Security (DHS), the Small Business Administration, and the Department of Housing and Urban Development ([HUD] 2013)

at the federal level (Anderson, 2002). At the state level, these public agencies may include Offices of Emergency Management, the Department of Community Affairs, Department of Health and Human Services, and the Department of Environmental Protection (Kapucu, Arslan, & Collins, 2010; State of New Jersey Department of Community Affairs, n.d.). Locally, Offices of Emergency Management, mayors' offices, business administrators, and town clerks are key players in disaster relief and recovery (Harris & Doerfel, 2016). However, the key players in long-term recovery are often rooted in the plural sector and comprised mainly of nonprofits and faith-based organizations ([FBOs] Harris & Doerfel, 2016, 2017; Lai, Tao, & Cheng, 2017). Nonprofits involved in disaster relief and recovery range from large congressionally chartered organizations such as the American Red Cross (Kosar, 2006) to FBOs such as the United Methodist Relief Organization (UMCORE), Catholic Charities, Episcopal Relief and Development, and Lutheran Disaster Response (DHS, 2011, 2013). Private sector organizations active in disaster relief and recovery may include complex consumer-facing organizations with sophisticated supply chains, such as Home Depot, Lowes, and Walmart, as well as firms specializing in consulting and grant management such as ICF International, Halliburton, Hammerman and Gainer, KBR Associates, and The Shaw Group, all of which bring a market-driven approach toward disaster relief and recovery (Adams, 2013; Browne, 2015).

Stakeholder theory provides an opportunity to better understand the organizational relationships that underpin long-term recovery. Traditionally, stakeholder models have provided a way of understanding economic and social organization and the connections between organizations seeking to solve similar problems or that share similar

organizational missions or operating logics. Applying stakeholder theory to an understanding of long-term recovery after disaster provides an analytical model for the development of a framework that accounts for the organizational relationships and sequencing of organizational activities required for multiyear processes of long-term recovery. Stakeholder theory, however, rests upon certain assumptions of economic and social theory that vary by country or region. Using traditional models of Anglo-American stakeholder theory misses key elements of communication, coordination, and embedded social relationships that are critical to understanding how long-term recovery processes depend upon networked stakeholders to identify problems, define solutions, and connect communities and residents with resources in a disaster-impacted area such as coastal New Jersey.

## Models of Stakeholder Relations Across Countries and Regions

Differences in stakeholder models across countries and regions reflect differences in economic and social organization (G. Jackson & Deeg, 2008). These differences reflect how capital was organized during the emergence of industrial processes and the rise of big business in the 19th and 20th centuries (Perrow, 2014; Sklar, 1988; Wiebe, 1967), and led to differences in institutional arrangements of work, management, community, government relations, employment, and professional or managerial associations. The ways in which institutions are arranged reflect the organization of society and the political philosophies underpinning the development of markets and contracts, and the rules governing work and social interactions (Aoki, 2001; de Tocqueville, 2000; Goffman, 1983; P. A. Hall & Thelen, 2008; Sklar, 1988). Institutional arrangements, in turn, shape how organizational activities such as goal setting, division of

tasks, roles, or functions, problem solving, decision making, communication, and coordination are conducted within and across organizations.

Within the United States, the function of the executive was given early prominence as managerial capitalism developed to coordinate communication and workflows, allocate resources, and manage employee relations among increasingly large, increasingly differentiated industrial organizations (Barnard, 1938; Perrow, 2014). Lately, this tradition of professional management has been challenged as owners of capital seek to control their firms directly and place greater emphasis on financial know-how than on managerial know-how (Davis, 2009; Fama & Jensen, 1983). The Anglo-American model of organizing differs from European models, in which technical know-how and paternalistic management (German) and communicative and management skills (Nordic) place an emphasis on social relations and governance processes, in addition to economic ownership and financial performance (Byrkjeflot, 2003). These different configurations of social, economic, and institutional arrangements shape communication practices and the underlying social and communication processes by which organizations operate.

Nordic models of capitalism reflect the social democratic trends of Nordic nations and a “middle way” tradition that sought to build an industrial society that emphasized labor-management cooperation rather than the worker/management conflict that marked the American and British transitions to industrialism (Byrkjeflot, 2003; Rhenman, 1968). Within Nordic social democracies, the role of management is to build trust and to negotiate among the competing demands and interests of business owners, workers, farmers, intellectuals, and managers themselves. Rather than focus on collective

bargaining and grievance procedures or the outright control of capital over workers and workplace dynamics, as is often the case in the United States, the achievement of consensus among conflicting groups lies at the heart of constitutional management in Nordic nations (Byrkjeflot, 2003; Strand & Freeman, 2015). Constitutional, or communicative, management reflects the broader inclusion of social governance and political rights within industrialism and in the development of markets in these northern European countries. This process of communicative management underlies the traditions of participatory management and processes of industrial democracy prevalent in these countries.

Consensus, communication, and collaboration are important parts of the long-term recovery process, as well as principles of participatory democracy and management. Multiple organizations are required to work with one another to achieve the goals of a long-term recovery process. Specific recovery goals may vary by region or community, but all long-term recovery requires processes that (a) distribute financial assistance; (b) enable reconstruction and rebuilding; (c) provide emotional, spiritual, and social support; and (d) coordinate among multiple programs, organizations, and agencies active in the recovery process.

Institutional failures and the inability of institutions to solve critical social and economic problems are a result of an overreliance upon private organizations and market-driven models and an imbalance between the private, public, and plural sectors (Mintzberg, 2015; Mintzberg & Azevedo, 2012) and has been reflected in some of the key failures of post-disaster recovery over the last decade (Adams, 2013; Browne, 2015). Successful long-term recovery requires cross-sector relationships operating on an equal

footing among the private, public, and plural sectors. Traditionally thought of as the nonprofit or third sector, the *plural sector* is that broad range of organizations that are neither privately owned nor are they public organizations enacted via a constitution, legislation, statute, rulemaking, or regulation. Plural sector organizations include traditional nonprofits, consumer and producer cooperatives, foundations and philanthropic organizations, labor unions, and social enterprises (Mintzberg, 2015). In disaster-impacted communities, emergent or pop-up organizations addressing neighborhood or community disaster recovery issues are primarily plural sector organizations and may be either formally or informally organized. Communication, coordination, and collaboration across all these sectors and organizations is crucial for the establishment of effective long-term recovery in disaster-impacted communities.

The development of constitutional management and the idea of consensus forged through communication about economic life in the Nordic nations was enacted through conflict between people and organizations in multiple social and industrial sectors, and not just out of a democratic ideal (Byrkjeflot, 2003; Rhenman, 1968). Farmers, laborers, skilled craftspeople, managers, and business owners all competed over resources and governance arrangements during the Nordic industrialization period. Although communicative management, or management through communication, is now a norm within these countries, it is a negotiated norm that mediates conflicting social and economic interests among different classes and occupations over power and resources. Negotiated norms of communication and consensus are critically important for effective stakeholder relationships in long-term recovery. However, tension and conflict may mark stakeholder relations in disaster-impacted communities when organizations jockey for

position as the focal organization or primary stakeholder serving the impacted community. Such jockeying is often found among non-local organizations with national or international scope that enter disaster-impacted communities with certain expertise or resources. Such jockeying among externally oriented stakeholders may often ignore the underlying expertise or resources of existing local stakeholders who are part of the embedded civic network in a disaster-impacted region or community (Ansell, 2003; Diani, 2015; Harris & Doerfel, 2016).

As a negotiated norm, communicative management is a communication practice that can be designed as a way to forge consensus around joint interests while mitigating or downplaying overt conflicts over power or resources. Communicative management requires an understanding of organizations and interorganizational relationships as part of a larger community and the integration of market forces within this broader community. Communicative management is a communication practice that is necessary for effective long-term recovery processes. Communicative management requires communication, coordination, and collaboration among diverse sets of stakeholders in disaster-impacted communities to enact the stakeholder relationships necessary to provide financial and material assistance, coordinate the complex set of tasks associated with rebuilding and reconstruction, and ensure that adequate emotional, spiritual, and social support is provided.

**Nordic Models of Stakeholder Relationships**

What differentiates Nordic models of stakeholder engagement from Anglo-American, or traditional, models of stakeholder management are the erosion or elimination of the distinction between primary and secondary stakeholders and an

emphasis on collaborative communication. Organizational theory in Scandinavia rests upon a foundation of political citizenship in which the primary units of association "were primarily voluntary associations, unions, local governments, and political parties" (Brykjeflot 2003, p. 13). Private enterprise, or the for-profit firm, was embedded within these relationships and leadership rested upon the ability of an individual or organization to negotiate and mediate among conflicting social, economic, political, and organizational governance models. Brykjeflot (2003) framed this approach as "constitutional management" (pp. 21–23), which had as its primary goal the moderation of market forces and their potential negative impacts on workers and communities.

Nordic models of organization theory hold that political, social, and economic citizenship are intertwined (Byrkjeflot, 2003). Political citizenship rests upon a foundation of political parties and social movements that mobilize non-elite citizens such as workers and farmers, providing them with equal voice in the political process. Social citizenship rests upon a foundation of social benefits provided through a social welfare state in which human development needs are met through state rather than employer or individual responsibility for health care, daycare, family leave, educational access, and retirement. Economic citizenship represents both the rights of workers and the rights of management, and these relationships have typically been mediated through processes of participative management and industrial democracy (Byrkjeflot, 2003; Rhenman, 1968). These processes are similar to the processes of long-term recovery in which social, political, and economic or organizational relationships provide the foundation through which networked stakeholders are able to mutually identify problems, develop potential

solutions, divide tasks, and coordinate the resources needed for individual and community rebuilding and recovery.

Participative management within this framework involves participation in the processes of decision making. These processes of decision making include problem identification, goal setting, norms of participation and boundary setting, problem solving, and formal decision making—the act of choosing an outcome or solution out of a range of possible outcomes or solutions (Rhenman, 1968, pp. 60–66). The emergence of global models of communication, consumption, and investment have begun to erode some of the more traditional models of Scandinavian participatory management and industrial democracy as cross-border mergers and acquisitions of Scandinavian firms have created blended multinational organizations with different norms rooted in different governance models (Wieland, 2011). The blending of more traditional models of Scandinavian models of management and governance with globalized organizational and economic norms has created new sources of conflict over resources, power, and governance that have an impact on social and organizational relationships among workers, citizens, consumers, and leadership at both local and global levels.

Similar to Deetz (1995), Rhenman's (1968) processes of decision making blended notions of ownership and appropriate stakeholder representation. One of the key challenges in contemporary society, according to Deetz, is the identification of these representative interests within processes of decision making. The notion of ownership and the sites of decision making have become increasingly contested as the lines between public and private decision making have blurred and public functions and resources have been offloaded to the private and plural sectors (Milward & Provan, 2000). The

challenge, Deetz argued, is the role of private capital and economically oriented management processes within complex decision-making processes. Within Anglo-American models, financial reward and economic outcome are viewed as the main measures of success and failure. Instead, a stewardship model of decision making, Deetz argued, would be more likely to move organizational leaders toward consideration of the complex web of relationships that connect private and public stakeholders. However, such a stewardship model requires both formal and informal authority to be granted or delegated to managers and other key decision makers. It is only through the broadly participative delegation of formal and informal authority among key decision makers or stakeholders that a more equal approach to communication and negotiation can take place.

Authority itself can be based on either power or shared goals. However, acceptance of shared goals is often predicated upon one of two parties having superior knowledge or know-how over the other. Rhenman (1968) defined *authority* as a social relationship between two parties in which one party responds to and implements directions from the other. Two or more parties may agree that they share certain goals or desired outcomes, but one party defers to the other because it perceives the other as having superior information or know-how, rather than a particular place in the hierarchy or a certain social status. Authority based on power derives from the ability of one party to sanction or reward the other party. In the Nordic stakeholder model, status and prestige may also play a role in perceived and actual authority in decision making and participative management. Distinctions may be made between status based on the role a stakeholder plays and the prestige of a particular person or type of role, but in general, the

authority of roles and positions may depend as much upon status as it does upon power or shared goals (Rhenman, 1968, pp. 67–70).

Positionality and role are important aspects of stakeholder relationships and shape the communication activities and work practices of networked stakeholders. Communication networks are a set of interdependent relationships that mediate informational, financial, and communication flows and provide an opportunity for or constraint on possible communication and work practices in an interorganizational relationship (Monge & Contractor, 2003). Within Nordic models of stakeholder relationships, power, information, resources, and influence flow between workers, management, the community, and a larger set of social institutions that include unions, employer associations, regulatory agencies, multilateral financial institutions (e.g., The World Bank), and third-party certifiers (e.g., the World Fair Trade Organization). Within these relationships, authority is derived from knowledge (about an industry, certain sustainability practices, worker health and safety, financial performance, competitive threats, and so on) and role (e.g., manager, worker, government official, regulator, community member, representative of a nongovernmental organization). Status and prestige may also play a role in perceived and actual authority within these stakeholder networks. Highly educated managers from a multinational forest products company may be perceived as having a certain level of prestige and status in addition to technical know-how in a Himalayan mountain village, whereas a locally based agriculture specialist may be seen as having only technical know-how related to a specific region. The number of possible permutations in roles and positions within a stakeholder relationship requires participative, decentralized, and transparent governance. These extended relationships

and roles are similar to the extended set of relationships and roles necessary to execute long-term recovery in disaster-impacted communities (DHS, 2011; Rubin, 2009; U.S. Government Accountability Office [GAO], 2016).

Contemporary Nordic stakeholder models reflect a decentralized model of embedded relationships often organized around notions of collaborative and participatory governance. Within these embedded sets of relationships, organizational and community interests are often entwined. Over a 40-year period, Novo Nordisk evolved its model of stakeholder relationships from one of firm-centricity, under which Novo Nordisk operated within a hub and spoke model of primary and secondary stakeholders (Strand & Freeman, 2015), to one of an extended web. In the model of firm-centricity, Novo Nordisk specifically managed the individual relationships between the firm, employees, customers, suppliers, and investors. Novo Nordisk evolved this classic model of stakeholder relationships toward a model in which the company locates its operations and relationships within a diverse web of interorganizational relationships embedded in multiple social and cultural contexts across the globe.

The evolution of organization at Novo Nordisk simultaneously supports and refutes Byrkjeflot's (2003) contention that Nordic models of management began to dissolve in the 1980s and 1990s as global capitalism began increasingly to reshape the social and cultural contexts in which firms and organizations operate. The rise of global capital and borderless organizations also gave rise to a form of communicative management based upon compromise, negotiation, and democratic-participative modes of social interaction that supported the increasingly important role that knowledge- and service-based industries were playing in national and global economies. This model also

takes into account the increased numbers of cultures and social contexts in which organizations are operating. Operating as a set of networked stakeholders within particular countries and cultures creates opportunities for shared expertise, local knowledge, and joint problem solving to become norms of participation and stakeholder engagement.

However, media management play important roles in this contemporary stakeholder environment as the management of meaning begins to displace the social interaction of citizens as a principal organizing process within organizational, social, and political life (Byrkjeflot, 2003; Deetz, 1992, 1995). This increased role of media and meaning management in contemporary stakeholder management is reflected in the emphasis of the American Red Cross on media, marketing, and public affairs, even during the emergency response phase of disasters. During the response to Hurricane Sandy, residents of New Jersey shore communities, current and former Red Cross volunteers, and local officials reported that the American Red Cross was using its transportation fleet for public relations efforts rather than service delivery of needed resources to residents and communities affected by the event (J. Elliot & Eisinger, 2014). Leadership at the American Red Cross uses a market-driven approach and emphasizes the role of marketing, media, and public relations in connecting an organization with larger publics and in setting the parameters of public debate and participation in interorganizational relationships (Briones, Kuch, Liu, & Jin, 2011; J. Elliott, 2015; McGovern, Court, Quelch, & Crawford, 2004). As the only congressionally chartered disaster relief agency in the United States (Kosar, 2006), the American Red Cross uses

communicative management to define its position as the primary federal partner in disaster response and its role as the primary provider of expertise and know-how.

Communicative management is used to establish and reinforce the position of the American Red Cross as the focal organization within a hub and spoke stakeholder model of nonprofit disaster response, rather than as a partner within an embedded community or regional disaster response network (Ambinder et al., 2013; DHS, 2008, 2013; J. Elliott & Eisinger, 2014). However, during disasters of the magnitude of Sandy, Katrina, Harvey, and Maria, stakeholder networks that blur the distinction between primary and secondary stakeholders emerge as crucial conduits of information, supplies, financial assistance, and social support (Harris & Doerfel, 2016), and a wide variety of organizations may play brokerage roles in which they connect multiple stakeholders and coordinate the movement of resources and expertise to communities impacted by disasters (Lind, Tirado, Butts, & Petrescu-Prahova, 2008). In these circumstances, the meaning and media management practices of the American Red Cross come into conflict with the broader needs of the community and on-the-ground, real-time partnering efforts between the different organizations responding to the initial disaster and then enacting long-term recovery efforts. Management of conflict between the American Red Cross and community stakeholders, as well as across the broader nonprofit community, thus becomes a defining feature of stakeholder networks operating in communities impacted by disaster (Ambinder et al., 2013; J. Elliot & Eisinger, 2014; Harris & Doerfel, 2017).

**Collaboration and Communication Among Networked Stakeholders**

Within Nordic models of stakeholder relationships jointness of interests, cooperative strategic postures, and a broader economic view of the firm and society

(Strand & Freeman, 2015) are the foundational pillars of stakeholder engagement. This model prioritizes cross-sector relationships built around collaborative communication (Deetz, 2017) and collaborative governance (Aakhus & Bzdak, 2015). Collaborative governance places communication and management in the hands of the stakeholder, with each networked stakeholder responsible for healthy and effective processes of communication and coordination (Deetz, 2017; Koschmann, 2013; Koschmann, Kuhn, & Pfarrer, 2012).

Communication is designed through networked stakeholders who collectively decide upon the communication activities and work practices that support the issues at hand, such as long-term recovery after disaster. These activities and practices are designed not only to meet the stated goals and desired outcomes of funding organizations and public agencies with rulemaking and regulatory responsibilities, but also to meet the needs of the communities and people served by the stakeholder network (Aakhus & Bzdak, 2015; Barbour & Gill, 2014; Koschmann, 2013). Stakeholder theory, then, rests upon a foundation of multiparty collaborative communication (Deetz, 1992, 1995, 2017). Like collaborative governance (Ansell, 2003), collaborative communication proceeds from the assumption that social, economic, and environmental problems are entwined and that stakeholders and their associated organizational and interorganizational networks are embedded within these broader social, economic, and environmental contexts.

**Communication design.** Communication design places the problems and practices of communication front and center in social and organizational life (Aakhus, 2007; Aakhus & Bzdak, 2015; S. Jackson & Aakhus, 2014). Communication design is a way of making visible the potential outcomes and processes of communication activities

that shape the organizing processes of communities and organizations. In some ways, communication design can be understood as a type of reverse engineering in which we look at particular outcomes of communication practices and processes and work backward to identify areas of communication breakdown and areas for potential improvement (Aakhus, 2007, 2015). Combined with a social constructionist grounded theory approach, communication design enables the creation of communication interventions that may strengthen interorganizational collaborations and relationships by creating possibilities for collaborative communication. Long-term recovery after disaster rests upon a foundation of meetings, case management processes, phone calls, and e-mails through which information about residents impacted by disaster or recovery, the unmet needs of residents, available funds, municipal permitting processes, new or extended assistance programs, state and federal documentation, and organizational capacity is shared among organizations engaged in long-term recovery. In long-term recovery, communication practices shape the organizing processes necessary for restoring some sense of normalcy through a rebuilding and reconstruction process. Understanding organizational competencies and capacity, organizational activities, and how organizational competencies are sequenced over time is critically important for developing the knowledge to intervene and build stronger communication practices that strengthen stakeholder networks and the processes of long-term recovery.

**Communication practices.** *Communication practices* are the organizational forms in which language and interaction occur within an interorganizational collaboration. By employing communication practices, responding agencies organize and connect thoughts, activities, goals, and outcomes within communities and organizations

seeking to rebuild after disaster (Goffman, 1983; Orlikowski, 2002; Stigliani & Ravasi, 2012). Organizational and communication activities engage and empower networked stakeholder relationships as part of long-recovery processes. These organizational practices help shape the interorganizational relationships that compose the social infrastructure of a community and contribute to social resilience.

Communication practices are the enactment of speech-oriented communication processes into a coherent set of activities that make use of encapsulated technologies, tools, or gatherings that communicate ideas, interpretations, or shared meanings among people seeking shared goals and outcomes. Communication practices are typically constructed through the comprehensive application of organizational communication that includes the memo, presentation software, spreadsheet software, statistical tools, mapping software, databases, e-mail and social media, public commenting, public testimony, and rulemaking (Kaplan, 2011; Sprain & Boromisza-Habashi, 2012; Yates & Orlikowski, 1992). Understanding communication practices in this way allows us to attend to the larger communication patterns and processes that compose the collaborative communication of networked stakeholders. Communication practices provide insights into the ways in which networked stakeholder relationships are formed and maintained within communities. As such, by identifying the communication practices used during processes of long-term recovery, we can identify the ways in which networked stakeholders come together and begin to build an understanding of the organizational activities that shape the organizational landscape of disaster-impacted communities. This understanding of organizational activities defines multi-stakeholder models of

collaboration as a communication practice that builds networked stakeholder relationships over time.

## Non-Nordic Models of Stakeholder Relationships

To fully understand the implications of communication-based Nordic models of stakeholder relationships, there is a need to consider the non-Nordic models of stakeholder relationships. The following sections address Anglo-American models, German-Swiss models, and natural resources management approaches to stakeholder relationships. Assessing different cultural and disciplinary approaches to stakeholder theory provides a stronger framework for moving stakeholder theory toward a process of networked stakeholder relationships organized around collaborative communication.

**Anglo-American models of stakeholder relationships.** Anglo-American models of stakeholder relationships are oriented toward the shareholder rather than the stakeholder and focus on value creation rather than collaborative communication. These approaches are also the traditional models thought of in stakeholder theory and analysis (R. E. Freeman et al., 2010; Laplume, Sonpar, & Litz, 2008). Within the traditional model of Anglo-American stakeholder relationships, stakeholders are treated as constituent parts of an organization to be managed, rather than as autonomous entities with their own set of relationships (R. E. Freeman, 1984; R. E. Freeman et al., 2010; Miles, 2015). These relationships tend to be transactional rather than relational and orient the interorganizational relationships in Anglo-American stakeholder models toward exchanges of financial, informational, material, and reputational resources rather than participatory models of social and organizational interaction in which joint problem identification, problem solving, and decision making take precedence.

Distinctions between primary and secondary stakeholders and between social issues and stakeholder issues are most pronounced in Anglo-American models. Appropriate stakeholder issues are defined as the organization itself, employees, shareholders, customers, employees, and suppliers. Public stakeholder issues are defined as health, energy, environmental issues and public policies, community relations, and social investments (Clarkson, 1995). In this formulation, public stakeholder issues are stakeholder issues only insofar as they directly affect the organization. Broader business and social issues are managed at the organizational level as part of a corporate social responsibility strategy. R. E. Freeman (1984) and R. E. Freeman et al. (2010) broke down stakeholders into internally and externally focused shareholders, with owners, customers, employees, and suppliers comprising one set of stakeholders and the government or public agencies, competitors, consumer and environmental advocates, the media, and various associations and special interest groups comprising a second, externally oriented set of stakeholders. Granted, R. E. Freeman (1984) and R. E. Freeman et al. (2010) moved toward a more holistic conception of stakeholder relationships in revisiting Scandinavian organization theory and stakeholder models (Strand & Freeman, 2015), but these formative Anglo-American models as articulated originally by R. E. Freeman (1984) still tend to be contractually based, with executed contracts taking precedence over social and employment rights (Mesure, 2005).

The contractual nature of Anglo-American models is what orients these models toward transaction-based strategic initiatives and away from models of collaborative communication. Concepts of shared values supersede concepts of collaborative communication because the logic of shared value aligns more directly with contractual

obligations and shareholder-oriented conceptions of the firm (Aakhus & Bzdak, 2015; M. E. Porter & Kramer, 2011). In this model, shared value represents an economic framework that emphasizes profitability as a joint function of corporate and social interests. The profit motive remains central in this framework, and market-driven governance is the primary organizing mechanism of both business and society (Aakhus & Bzdak, 2015; pp. 192–193). This dichotomy makes it difficult to move toward a principal of jointness of interests and collaborative communication because Anglo-American models are organized at the individual and organizational levels rather than as a set of social relations and obligations. Further compounding these issues are the contractual nature of Anglo-American stakeholder relationships in which contracts are executed as two-party or multiparty transactions among individuals and organizations, rather than being embedded within a broader set of governance models and social norms that prioritize cooperation over economically determined value.

**Cooperation as governance: German-Swiss stakeholder models.** German models of stakeholder relationships are organized around cooperative principals governing management/labor relations that are enshrined in German law (Byrkjeflot, 2003; G. Jackson, 2005). German-Swiss social and economic arrangements have been referred to as a Rhine or Rhinish model characterized by social consensus, egalitarian values, community-based employment and organizational ecosystems, long-term strategic approaches to capital investment and finance, social rather than employment benefits, and a limited role for religion in economic and social life (Peck & Theodore, 2007). In Albert's (1993) original formulation, the Rhinish model also included the

Netherlands, parts of Scandinavia, and was even extended to include Japan—all countries that emphasize organizational models built around consensus and employee inclusion.

The Rhinish model of stakeholder relationships emphasizes the formal organization of workers, managers, and state institutions into cooperative arrangements in which decisions related to employment rights, allocation of resources, deployment of capital, and strategy formation are worked out cooperatively and decisions often made jointly. Unlike Nordic models of stakeholder management, according to the Rhinish model, cooperative governance at organizational and institutional levels is institutionally configured and a matter of law in Germanic countries. Although this approach does result in employee participation and consensus building, the need for highly developed models of collaborative communication is less pressing than in the Nordic nations because of the institutional frameworks that shape interorganizational relationships and interactions in Germanic countries. However, unlike the Anglo-American model, German-Swiss stakeholder relationships are predicated upon an embedded web of social and organizational relationships that erode distinctions between primary and secondary stakeholders. Within these European models of stakeholder relations, participation and consensus building throughout the problem-solving and decision-making phases are critical parts of stakeholder engagement.

**Models of stakeholder relationships in natural resources management.** While literature on communication, management, and strategy focus on the organizational and interorganizational dimensions of stakeholder relationships, scholars and practitioners in natural resources management, policy studies, and international development conceptualize stakeholder relationships as a way of identifying those sidelined or ignored

in decision making processes and bringing them into processes of decision making and governance (Reed et al., 2009; D. Scott & Oelofse, 2005). The emphasis on stakeholder relationships as people rather than organizations (see also Taylor & Doerfel, 2011) or interorganizational relationships (see also Taylor & Doerfel, 2011) tends to align stakeholder engagement within the natural resources community with contemporary models of Nordic stakeholder engagement in which democratic participation, collaborative communication, and a view of stakeholder relationships as embedded within communities prevails (Strand & Freeman, 2015). Authors of the natural resources literature still struggle with the same problems of scope, inclusion, and boundaries within stakeholder analysis that management and communication literatures traditionally have. Although the focus on participation and inclusion is paramount for stakeholder engagement within the natural resources community, issues of power and manipulation may still arise and have an adverse impact on the inclusion and attention paid to certain groups of stakeholders (Reed et al., 2009, pp. 1934–1935).

Issues of hazardous waste siting in urban environments are prime examples of conflicts among different groups of stakeholders in a community. Hazardous waste siting often tests notions of participatory decision making and reinforces traditional power structures within communities. Participation may be constrained by the embedded sociohistorical framework in which participatory activities take place. These embedded sociohistorical frameworks could constrain the ability of marginalized populations to shape their community and built environments in a way that minimizes the location of noxious and hazardous facilities (Pellow, 2000; Sze, 2007; Szasz, 1994). Low land values, existing approaches to managing toxic, hazardous, and noxious waste disposal,

and lack of organized community stakeholder opposition usually results in the replication of existing decision-making practices and land use policies that disproportionately harm communities of color, vulnerable populations, and low-income communities.

The introduction of recycling and waste management plants into South Side Chicago as part of a move from garbage disposal to “green technologies” was part of a multi-stakeholder process influenced by political and industry stakeholders in greater Chicago. Rather than being an exercise in deliberative democracy, neighborhood participation, or participatory planning, this stakeholder process was heavily influenced by corporate and political demands and marked by a lack of participation by organized labor and workers. This imbalance resulted in a South Side Chicago recycling facility operating in ways that proved dangerous to workers at the plant, the siting of which was in the midst of communities of color that already bore a disproportionate share of the waste disposal and hazardous industries of the city. This multi-stakeholder process, while ostensibly collaborative, resulted in South Side communities and workers bearing the brunt of the environmental hazards associated with the operation of a recycling facility, while the broader Chicagoland community benefitted from the perceived advantages of a green technology to replace existing land use, air quality, and transportation challenges associated with traditional solid waste disposal and garbage hauling practices (Pellow 2000).

Stakeholder engagement in natural resources management is not solely about giving voice to the voiceless and including the dispossessed in those governance processes related to land and natural resources. Stakeholder engagement can also be used as a tool for decision makers and power brokers to gain buy-in to policies and plans and

to overcome obstacles and local opposition. These instrumental approaches tend to privilege technical problem solving, organizational leadership, and elite agenda setting over a bottoms-up approach to information gathering, problem definition, stakeholder identification and stakeholder inclusion. These problems mirror the issues of power and authority within the processes of decision making in industrial democracies raised by Rhenman (1968), and the issues of representation and control identified by Deetz (1992, 1995, 2017) as obstacles to consensus building in complex governance issues that cross public/private boundaries. When stakeholder engagement is conducted in such an instrumental way, community members may feel the participatory dimension of the stakeholder engagement process missing or may feel they lack the knowledge needed to participate and make meaningful contributions to solving complex problems facing their communities.

**Traditional Models of Stakeholder Relationships**

Stakeholder theory provides a framework for understanding the purpose of an organization and the multilayered social and organizational relationships that comprise the internal operations and external environment of an organization (R. E. Freeman, 1984; R. E. Freeman et al., 2004). Traditionally developed as a model of corporate relationships within the external environment of an organization, stakeholder models have been expanded to include stakeholder networks, management of natural resources, and the embedded nature of organizational and community relationships (Granovetter, 1985; Reed et al., 2009; Rowley, 1997; Strand & Freeman, 2015). Stakeholder relationships require an understanding of which organizations constitute the stakeholders of the firm—those organizations that have a stake in the issue, organization, or

community at hand—and a definition of the particular stake at hand. Traditionally, *firm* has referred to for-profit organizations engaged in economic transactions. Firms can be organizations, but the term firm refers to a much broader set of organizations active across the private, plural, and public sectors and comprising a variety of economic and operating models (Coase, 1937; Mintzberg, 2015) that guide the mission, purpose, and relationships of the organization.

Traditionally, stakeholder theory defined stakes along two different dimensions. The first dimension focused on the different types of organizations holding different types of stakes within an organization or that are related to an organizational outcome. By tradition, these stakes include equity (ownership), market (customers and suppliers), and government (influence or persuasion). The second dimension of stakeholder relationships emphasizes power, or the application of resources to create a desired outcome. Power in classic stakeholder theory is defined as economic power (price, switching ability, supply, investment), voting power (ability of owners to vote for preferred directors, managers, or stock market activity), and political power (legislative, regulatory, or legal activities; R. E. Freeman, 1984).

Contemporary stakeholder theory emerged from strategic management approaches to corporate strategy. Classic strategic management focused on the management of the core assets of the company, which were usually defined as plants, properties, people, and equipment. Strategic management was designed to understand the operation of the whole firm and to provide a focused disciplinary background for emerging general managers from leading business schools to engage in the management of increasingly complex, increasingly global organizations (Kiechel, 2010).

Strategic management approaches to stakeholder theory place more emphasis on cooperative relationships than traditional competitive strategy models, which primarily emphasize competitive advantage and shared value creation over a model of cooperation rooted in shared social and organizational identities and environments (Aakhus & Bzdak, 2015; R. E. Freeman et al., 2004; M. E. Porter, 1980). Stakeholder theory stands in marked contrast to shareholder-driven, free-market models of corporate strategy, the aim of which is to maximize profit and financial returns to shareholders (Fama & Jensen, 1983; Williamson, 1973) regardless of impact to employees, the community, or local ecologies. Ethics and economics are not separate in stakeholder theory; rather, they are interrelated. This concern with values and purpose, rather than a strict accounting of value creation and investment return, advances an idea of corporate and organizational life in which social relations, democratic practices of management and decision making, joint problem solving, and interorganizational collaboration become salient to the operation of the firm and to the execution of the strategy of the firm (Deetz, 1992, 1995; Deetz, Tracy, & Simpson, 2000).

Contemporary corporate strategy is typically focused on financial questions and shareholder wealth within a framework where shareholder concerns and shareholder rights predominate organizational decision making (Davis, 2009; Fama & Jensen, 1983; Ott, 2011; Posner, 1974). In contrast, traditional theories of stakeholder relationships view the business environment as a set of cooperative relationships in which businesses manage their organizational relationships as a symbiotic relationship between the business, investors, employees, customers, suppliers, media, and community and environmental organizations representing specific social and environmental issues.

## Stakes in Interorganizational Relationships

Classic stakeholder theory defines stakeholders—those with a stake—as groups or people who are mutually dependent upon one another and who are able to make an impact on the achievement of individual or organizational goals (R. E. Freeman, 1984; Rhenman, 1968). Within R. E. Freeman's (1984) stakeholder framework, stakeholders are organizations, groups, or individuals without whose support the firm would seek to exist. In their review of stakeholder theory, Strand and Freeman (2015) highlighted the expansion of stakeholder interests among Scandinavian companies to include child labor, human rights, long-term, stable investments in communities where the business operations of global companies are located, and broad sustainability practices related to forestry and agriculture.

Traditionally, stakeholder theory is concerned with organizational survivability and may serve as both a social theory of the firm and an action theory of the firm (Strand, 2015, p. 91). As a social theory of the firm, stakeholder theories embed economic transactions and relationships within social relations. It is this view, articulated by Näsi (as cited in Strand, 2015), that entwines stakeholder theory with notions of political citizenship in which organizations are both an actor that "cements" community relationships (Diani, 2015) and a focal organization, or primary stakeholder, that has stakes in other organizations, which in turn have stakes in the focal organization (Clarkson, 1995; R. E. Freeman, 1984; Rowley, 1997). An action theory of the firm frames stakeholder relationships as a series of interactions among organizations with similar goals and motives (Strand 2015). Both these articulations place collaborative communication as the core process of stakeholder relationships and follow Deetz's

articulation of communication as the means of improving both organizational and civic life (Deetz, 1992, 1995, 2017; Deetz et al., 2000). The interaction among stakeholders and the mediation of their conflicting interests are the processes that contribute to organizational survivability. Stakeholder interactions, then, are the key to the maintenance of the organizational model and operations of the firm. In long-term recovery, interactions among stakeholders make the operation of recovery efforts and the survivability of the community possible.

Rhenman's (1968) initial stakeholder framework included the community as a key stakeholder because of the mutual dependence between state and society in enacting the economic, organizational, and social processes that shape communication practices, collaboration, and governance. The tension between stakes as economic interdependence among employers, employees, suppliers, customers, competitors, public agencies, and stakes as a broader set of relations between organizations and their external environments pervades the history and literature of stakeholder theory. However, framing stakeholder governance primarily as a mutually dependent exchange of resources necessary to organizational survival reduces stakeholder complexity to a coldly rational calculation of economic costs and benefits (Deetz, 1992, 1995). Such an approach ignores human complexities and the web of interdependent relationships that compose the communities in which stakeholder relations take place and decisions are made. Stakeholder relationships may be goal dependent—that is, organizations have both independent and interdependent goals, which contribute to their maintenance, and survivability over time (Strand 2015).

**Stakes as Contributions and Rewards**

At its heart, stakeholder theory is about the claims that different organizations have upon one another. As part of an understanding of long-term recovery processes, stakeholder theory can be extended to interrogate the claims that communities have upon organizations and the claims that organizations have upon both (a) the communities in which the organizations are actively engaged in recovery efforts; and (b) the organizational partners with which they engage through long-term recovery groups, state and local VOADs, and similar coordinating entities. In contrast to Anglo-American models of stakeholder theory that emphasize interests, shares, or economic and political power, traditional Scandinavian stakeholder models emphasize contribution and reward as the key interactive mechanism among stakeholders (Strand 2015). Stakeholders contribute to these interdependent relationship in some way that is unique to their organizational, mission, goals, or resources and are then rewarded by other organizational contributors who offer their own unique set of organizational competencies to the endeavor.

Traditional stakeholder contributions and rewards include financial, material, and informational goods, as well as power, status, and prestige (Strand 2015; Strand & Freeman, 2015). This framework has strong parallels with the symbiotic sustainability model (Shumate, Hsieh, & O'Connor, 2016; Shumate & O'Connor, 2010) in which nonprofits and businesses partners exchange needed resources, information, reputation, and identity as a way of influencing outcomes in their niches and meeting their organizational goals. The symbiotic sustainability model emphasizes cross-sector alliances between for-profit and nonprofit firms, but its framework may have utility for

understanding communication and organizing practices involved in interdependent processes such as long-term recovery after disaster.

**Stakes, Joint Interests, and Problem Solving**

*Stakes* are joint interests that connect members of a community who share a common goal. Within a community framework of networked stakeholders, a stake can be defined more specifically as shared interests in problem solving related to specific economic, social, or environmental issue(s) that have an impact in the community. Stakes represent the mutual or symbiotic relationships and claims that different organizations and communities have upon one another, the contributions that different organizations bring to community and interorganizational relationships, and the rewards that accrue from participation as a networked stakeholder in a community or organizational ecosystem. Organizations make claims upon each other and upon the communities with and within which they interact to increase their chances of survival, especially in turbulent or disrupted environments. The same holds true for communities. Communities make claims upon the organizations with which they interact to provide revenues, jobs, technical know-how, and expertise. Organizations expect a stable environment in which to operate in. During times of disruption or turbulence, these claims and the mutual dependence of communities and organizations upon each other become magnified. Compromise, negotiation, and collaboration become increasingly important to allow all stakeholders to jointly define goals, solve problems, and manage conflicts over leadership, role(s), power, and resources.

**The Multiple Stakeholder Model**

While stakeholder models, by definition, always include multiple stakeholders, Deetz (1995) argued for a multiple stakeholder model that moved beyond the narrow set of stakeholders typically associated with the value chain or interorganizational relationships of for-profit firms and away from the traditional emphasis on the organization at the center of a stakeholder universe. The multiple stakeholder model moves from the local to the global and focuses on processes of shared decision making and negotiated meanings among a broad range of organizational and community actors, rather than on exchanges of resources and profit-seeking motives among firms. The multiple stakeholder model encompasses the private, public, and plural sectors, with each sector considering organizational issues, interorganizational relationships, and social concerns as part of their decision-making and partnering processes (Harris & Doerfel, 2016; Mintzberg, 2015; Mintzberg & Azevedo, 2012).

Similar to R. E. Freeman's (1984) stakeholder model, Deetz's (1995) multiple stakeholder model includes "consumers, workers, investors, suppliers, host communities, the general society, and the world ecological community" (p. 50). Whereas R. E. Freeman focused on the role of stakeholders in processes of strategic management in which stakeholders have a 1:1 relationship with a focal organization, the multiple stakeholder model represents a model of "pluralistic interdependence" (Deetz, 2017) in which organizations may have separate identities, missions, and goals, but are interconnected with each other and with the broader set of social relationships within which they are embedded. This model of multiple stakeholders has strong parallels in contemporary Nordic stakeholder management, in particular the Novo Nordisk model of

both their stakeholder relationships and responsibilities (Strand & Freeman, 2015). Figure 1 depicts the Novo Nordisk (n.d.) stakeholder model as a set of complex relationships with no one organization at the center. Within the Nordic models, for-profit firms managing stakeholder engagements, corporate responsibility initiatives, or sustainability programs do not conceptualize their organizations as the center of the stakeholder universe. Instead, they see their organizations as embedded within a broader set of organizational and community relationships.

Networked stakeholders are a set of multilayered social and organizational ties that connect partnering organizations and communities. These social and organizational relationships combine to create a web of social influences in which stakeholders interact with one another to make joint decisions, enact shared goals, or influence one another towards a desired outcome (Rowley, 1997). Networked stakeholders emerge from a web of social and organizational relationships. These networked stakeholder relationships have multiple layers that extend from formally enacted relationships between partnering organizations to the interpersonal interactions that organizational members use to enact organizational partnering and collaborative communication. Relationships between organizations foster not only the development of trust between organizations, but also may act as a hedge against unethical or criminal behavior such as fraud or deception (Granovetter, 1985; Mizruchi & Fein, 1999; Uzzi, 1997).

## The Symbiotic Sustainability Model: Modeling Corporate/NGO Stakeholder Alliances

The symbiotic sustainability model (SSM) is an extension of the multiple stakeholder model. It is an evolutionary link between a theory of private sector

relationships designed to make strategic management more effective and a networked model of cross-sector relationships. In this evolved model, private and plural sector organizations build alliances that leverage one another's social capital to solve particular social, organizational, and interorganizational problems.

SSM is an interorganizational communication framework that models alliances between nongovernmental organizations (NGOs) and corporations. These alliances are designed to mobilize economic, social, cultural, and political capital on behalf of an NGO/corporate alliance. Partnering organizations seek out one another to provide, receive, or strengthen the strategic, operational, or reputational resources necessary for the operation and survival of their own organizations. Because corporations and NGOs are typically not in direct competition with one another, they are able to build symbiotic relationships that leverage each other's competencies to strengthen the economic, operational, and reputational capacities of each organization (Shumate & O'Connor, 2010).

Corporations and NGOs typically inhabit different resource and identity niches within an organizational landscape. Resource niches are the demands of time, money, and materials placed on an organization by employees, customers, and volunteers, while identity niches describe the various services that organizations provide or the different operating logics and business models in use by different organizations (H. E. Aldrich & Ruef, 2006; Shumate & O'Connor, 2010). Applying these two conceptual frameworks reveals the different roles organizations play and the positions they may hold within an organizational ecosystem comprising multiple organizational populations. The SSM is of particular value for understanding interactions across the public, private, and plural

sectors. Organizations in each of these sectors have mission statements, goals, and institutional logics that tend to be separate from one another and define each organization in unique ways, even though organizations may be working closely together to solve a particular problem or interact regularly within an interorganizational relationship.

The SSM describes the ways in which nonprofits and businesses partner to mobilize economic, social, or political capital through the creation and maintenance of interorganizational relationships to leverage the core strategic, operational, and reputational resources of each organization for capital mobilization. Within the SSM, stakeholders of each partner organization ratify the meaning and value of these alliances. Ratification is both formal and informal and relies on assessments of the value and meaning of these alliances to the partnering organization by concerned or interested stakeholders. Assessments are made by considering the reasons for having formed the alliance and the nature of the overall partnership identity being communicated from partner organizations to their stakeholders. The partner organizations determine what is appropriate based upon the needs of each of the partner organizations, the ability of the partnership to increase capital, and the potential positive and negative benefits that will accrue form the organizational partnerships.

Organizations will usually partner with similar organizations—those with similar missions, objectives, and charters—but organizations already in a partnering relationship may also evaluate a third organization for suitability as a partner. In a study of social service delivery networks in Africa, researchers found that international NGOs were more likely to partner with another NGO than with local organizations, while local NGOs were more likely to partner with other local NGOs than with local organizations not

affiliated with the government. These partnering decisions were also driven by organizational evaluations of the suitability, capabilities, and competencies of other organizations (Atouba & Shumate, 2010, 2015). Social ties, communication patterns, and information flows provide the foundation for these collaborative partnerships and enable the service delivery, problem solving, and decision making necessary for these organizations to meet their goals and fulfill their missions. Partnering operates at multiple levels, from simple exchanges of information or resources between two similar organizations to complex interrelationships in which suitability to partner is determined by an array of factors including geographic proximity, organizational type or attributes, organizational age and any specific or unusual circumstances related to the founding, existing interorganizational relationships, and funding sources and relationships (Atouba & Shumate, 2010; Flanagin, Monge, & Fulk, 2001; Monge & Contractor, 2003).

Although the symbiotic sustainability model is based upon corporate/nonprofit stakeholder relationships, it has utility for understanding plural sector-focused networked stakeholder relationships in long-term recovery. Cross-sector relationships in disaster-impacted communities are sometimes burdened by external events (i.e., the disruption of physical, social, and organizational infrastructure); they use organizational partnering to develop or strengthen relationships to replace or restore organizational roles and solve problems of mutual interest to the community and its stakeholders. These partnering activities involve nonprofits with different service missions, such as housing, food, and mental health services, collaborating to help solve problems of long-term recovery. Organizational partnering activities may also include cross-sector relationships between local and regional or national nonprofits that enter into a disaster-impacted community to

supplement or replace local organizations active in disaster response and recovery (Bosworth & Kreps, 1986; Butts et al., 2012; Harris & Doerfel, 2016)

In a study of nation-building in Croatia after the collapse of Yugoslavia and the end of the subsequent civil war, Doerfel and Taylor identified the central role of founding nonprofits within the nonprofit networks formed to rebuild democracy and establish fair elections (Doerfel & Taylor, 2004; Taylor & Doerfel, 2003). While nonprofit networks can be formed and interorganizational relationships cultivated among nonprofits, in an environment characterized by rebuilding after disruption, state institutions (public agencies) and media institutions play important roles in the development and maintenance of these networks as civil society is rebuilt and governing mechanisms reconstructed. Funding and donor relationships also play important roles in the development and maintenance of these nonprofit networks, particularly those that integrate national and international nongovernmental organizations, public agencies, and media institutions (Flanagin et al., 2001; Taylor & Doerfel, 2011). These funding relationships may also provide donors a means of guiding organizations toward partnerships or other forms of collaboration by expressing interest in the collaborative activities of potential recipients of grants from grant-making organizations and foundations (Doerfel, Atouba, & Harris, 2017).

The SSM serves as a bridge between models of multi-stakeholder and embedded stakeholder relationships. It also serves as a path toward a more expansive framework of networked stakeholder relationships. Networked stakeholders comprise a web of direct and indirect connections among different sets of stakeholders with different resources, capabilities, and capacities. These organizations are connected with each other by the

stake that each stakeholder has in the performance or reputation of the other, and with the community within which they operate.

**What is a Stake in an Interorganizational Relationship?**

Classic stakeholder theory defines *stakeholders* as groups or people who are mutually dependent upon one another and who are able to effect the achievement of individual or organizational goals (R. E. Freeman, 1984; Rhenman, 1968). In R. E. Freeman's (1984) stakeholder framework, organizations, groups, or individuals are also stakeholders; without their support, the firm would not exist. Rhenman's (1986) initial stakeholder framework included the community as a stakeholder because of the mutual dependence between state and society. There exists a tension between stakes in the form of economic interdependence among and between employers, employees, suppliers, customers, competitors, public agencies, and the stakes themselves. This tension reflects a broader set of relations between organizations and their external environments, documented throughout the history and literature of stakeholder theory. Framing stakeholder governance as a mutually dependent exchange of resources necessary to organizational survival reduces stakeholder complexity to a coldly rational calculation of economic costs and benefits (Deetz, 1992, 1995). Such an approach ignores human complexities and the web of interdependent relationships that compose the communities in which stakeholder relations take place and decisions are made.

In their review of stakeholder theory, Strand and Freeman (2015), highlighted the expansion of stakeholder interests among Scandinavian companies to include (a) child labor; (b) human rights; (c) long-term, stable investments in communities where business operations are located; and (d) broad sustainability practices related to forestry and

agriculture. In this context, stakes are joint interests that connect members of a community who share a common goal. Within a community framework of networked stakeholders, a stake can be defined more specifically as shared interests in problem solving related to a specific economic, social, or environmental issue that has an impact on the community.

## Reconceptualizing Stakeholder Theory Through the Practices and Processes of Long-Term Recovery

Analyzing the processes of long-term recovery provides an opportunity to reconceptualize stakeholder theory as a model for understanding stakes as joint interests in solving economic, social, or environmental issues of mutual concern. Within processes of long-term recovery, solving physical, social, and economic issues in a disaster-impacted community or region is critical for rebuilding and community recovery. Redefining stakes outside of the organizational environment places communication at the center of stakeholder relationships and connects organizations not only to each other, but also to the community of which they are a part.

A key critique of stakeholder theory is that there are myriad ways of defining both stakes and stakeholders, and there is a lack of agreement on what specific functions stakeholder relationships perform (Miles, 2012, 2015). At a basic level, definitions of stakeholder are dependent on whether the analysis is focused on organizations or on broader public issues related to natural resources management, policy and planning, development, or systems of human services delivery. Public issues within communities tend to be multilayered and complex, involving organizations, organizational relationships, the natural and built environment, and the communication networks by

which information is gathered and exchanged, messages framed, and collaboration enacted. Effective processes of long-term recovery address these multilayered issues and use organizational relationships to solve problems of rebuilding, financial assistance, social support, health and wellness, and overall community recovery.

The struggle within organizational theory to define stakeholder theory in the context of a community as a set of networked relationships arises from the interdependent nature of stakeholders. Stakeholders are not discrete entities. Instead, they are part of a web of social and organizational relationships embedded within a community, region, or nation. The complexity of these interdependent relationships is compounded by their embeddedness in particular organizational fields, sectors, industries, or communities. Within the context of natural resources management, struggles to define stakeholder sets and the proper role of stakeholder analysis reflect the messy, complex nature of many social and environmental problems.

To move beyond these issues of conceptual framing and analysis, a new framework for stakeholder theory is proposed. This framework defines networked stakeholder relationships as relationships between organizations, communities, and citizens with joint interests in solving particular problems having an impact on the organizations, interorganizational relationships, and the communities in which these organizations are located. This expanded definition places stakeholder theory firmly within “the collaborative turn” (Deetz, 2017) and orients organizations internal practices and external relationships toward specific social problems.

Social problems may be related to environmental governance, social resilience, citizen participation, workplace democracy, wages and inequality, and so forth, but they

all require joint problem solving and shared decision making, as well as robust organizational, interorganizational, and community capacities for solving complex problems. In particular, long-term recovery after disaster requires robust interorganizational relationships, organizational capacities, and the use of collaborative communication for joint problem solving and shared decision making. This integrated approach toward stakeholder theory explicitly recognizes that organizational and interorganizational capabilities are interdependent and embedded within a broader set of social processes and political economies. Stakeholder relationships, then, are a network of social and organizational relationships embedded within a social and historical context. These social and historical contexts are what define and shape the opportunities and constraints of organizational fields, place-based or occupational communities, and the geographic regions in which social and environmental problem solving takes place.

# CHAPTER 3

## NETWORKED STAKEHOLDERS AND CIVIC NETWORKS

Networked stakeholders are fundamental to the ability of a community to solve problems, manage social risks, make sense of an event, and rebound from social or environmental disruption (Doerfel & Harris, 2017; Kapucu et al., 2010). Since the 1980s, much has been written about the role of interorganizational relationships in strategic alliances and innovation in the private sector. With few exceptions (Atouba & Shumate, 2010; Diani, 2015; Shumate & O'Connor, 2010; Taylor & Doerfel, 2011), research on interorganizational relationships and cross-sector partnerships in the plural sector has not developed as quickly as research on the role of interorganizational relationships in the private sector. Despite the hollowing out of the public sector (Milward & Provan, 2000) and the offloading of public services to the private and public sectors over the last 30 years, academic research has not kept pace with the nonprofit networks that have increasingly replaced public sector resources and management, especially in challenging public policy areas such as long-term recovery from disaster.

Long-term recovery following natural disaster is an interdependent activity that requires effective civic networks to coordinate resources, deliver services, and make sense of the changing circumstances in which communities and organizations are operating following a disaster. Within these civic networks, nonprofits and other plural sector organizations are activated through the implementation of emergency response plans, the creation of long-term recovery groups under the auspices of a third-party fiscal agent, pop-up organizations, spontaneous volunteers, and social innovation. However, in many communities impacted by natural disaster, existing civic networks in place before

the disaster occurred play fundamental roles. During the initial phases of a disaster, existing nonprofits and the community may become stressed or overwhelmed, opening the door for new organizations to enter the network. Integrating these nonprofit networks with new organizations that enter the disaster-impacted community and with new funding streams from grant makers and foundations that offer support in the wake of a natural disaster is a key coordinating challenge during processes of long-term recovery.

Effective civic networks use communication practices to connect stakeholders. *Civic networks* are networks of exchange that underlie the patterns of communication and social relationships that shape communities, political action, and governance (Diani, 2015; Galaskiewicz, 1979, 1985). Power dynamics, resource dependency, advocacy efforts, trust, conflict, and organizational legitimacy (Galaskiewicz, 1985) are common features that mark interorganizational relationships and animate connections among networked stakeholders.

Civic networks emerge from the social and organizational relationships within a community through communication activities that link organizations together in stable patterns of relationships over time (Diani, 2015; Monge & Contractor, 2003). The social and organizational relationships that compose civic networks are a series of communication practices and organizational activities comprised of multiple levels of social and organizational interactions. These interactions are relational (Emirbayer, 1997; Mische, 2011) and occur across multiple levels of social and organizational structures, which in turn constitute patterns of interorganizational relationships that give rise to networked stakeholder relationships (Monge & Contractor, 2003; Van de Ven, 1976; Van de Ven & Walker, 1984). These networked stakeholder relationships are embedded

within the communities and organizational fields in which they operate (Ansell, 2003; Strand & Freeman, 2015; Uzzi, 1997). Communication networks link organizational partners and provide the means by which information, ideas, resources, and identities are communicated over time among stakeholders (Koschmann et al., 2012; Mische, 2008; Monge & Contractor, 2003).

Communication networks and social structure are not simply fixed patterns of relationships and social interaction; they are dynamic, configurable, and can be redesigned to address emerging community needs, social interaction, and organizational relations. While civic networks and the social structure of a community tend to be relatively stable over time, shock events such as a natural or man-made disaster can also disrupt or reorder community social structures and the traditional organizing processes of existing civic networks (Kendra & Wachtendorf, 2016; Kreps & Bosworth, 1993; Quarantelli & Dynes, 1977). Following the terror attacks on September 11, 2001, ferry operators in New York Harbor rapidly created new patterns of communication and connection with each other and first responders to facilitate the evacuation of large numbers of people from Manhattan Island.

Social—or community—structure is often misinterpreted as fixed patterns of relationships rather than as dynamic patterns of exchange in which social and organizational relations are created and re-created overtime in response to exogenous events, changes in resource flows, and shifts in power dynamics (Mische, 2011; Monge & Contractor, 2003). Organizations will often choose to (a) partner with other organizations with similar perspectives or desired outcomes; (b) partner with organizations with similar organizational characteristics; or (c) exert power in the

network through superior resources, reputation, or position (Atouba & Shumate, 2015; Castells, 2011; McPherson & Smith-Lovin, 1987). Partnering activities using superior resources, reputation, or position to influence civic networks enable organizations to control the external environment in which they operate to minimize uncertainty or mitigate risk to the organization or community (Pfeffer & Salancik, 1978). This emphasis on control of the external environment of an organization is fundamental to classic Anglo-American models of stakeholder engagement that emphasize primary stakeholders as a hub or focal organization with a series of direct one-to-one relationships with other organizations. However, using a framework of networked stakeholder relationships reveals the roles, tasks, expertise, position, power, and authority of different organizations active in a particular community or interorganizational relationship.

As stakeholder analysis progresses from classic hub-and-spoke models of stakeholder relationships to networked models, the position and roles of specific organizations within these relationships becomes more apparent. In classic hub-and-spoke models, one organization occupies the center of these relationships by virtue of its role, position, resources, or social capital. Focal organization may be in a position to broker new relationships that will, in turn, create new patterns of communication and organizational relations. Although central organizations may perceive themselves as the dominant player in a stakeholder relationship, other organizations may be providing expertise, communication, and coordination or emerging to fulfill specific tasks or rolls.

In a recent study of post-Sandy emergency response in a small coastal community, Harris and Doerfel (2017) found that two different organizations—one institutional and one emergent—were more central to the civic network than traditional

disaster relief organizations, with each organization addressing different parts of the emergency response network. In the wake of Hurricane Sandy, the New Jersey Office of Emergency Management connected public agencies and first responders while emergent volunteer activities connected the nonprofits and local businesses that provided direct assistance to Sandy-impacted residents in the community. In this case, both sub-networks were part of a larger community response network where local, rather than regional or national, organizations took the lead in organizing response. Often, however, the American Red Cross seeks to assume a central role in a disaster response network. The congressional charter of the American Red Cross (Kosar, 2006) and the vast numbers of disasters to which the organization has responded over time serves as an imprimatur of expertise and historical authority that allows the American Red Cross to enter a disaster-impacted community as a federal partner and assume a dominant position among stakeholders as a central actor.

Regardless of its reputation, the conditions on the ground, timeline of response, and the capabilities and capacity of the American Red Cross itself may all create opportunities for new stakeholder relationships to be redesigned by participants. Local or regional organizations with pre-storm relationships may act as brokers for responding organizations to enter into the community for the first time. These local or regional organizations may have positional authority because of their role in an incident command system (ICS) or as part of the national response framework and can help coordinate the inflow of organizations and resources, directing them to the areas of greatest need relative to their local knowledge and connections in the community. Other times, emergent organizations such as Occupy Sandy (Ambinder et al., 2013; Elliott & Eisinger, 2014;

Feuer, 2012) or Sea Bright Rising (Angermiller, 2012; Burton, 2016; Timm, 2013) may arise and perform similar disaster response and recovery functions as they integrate within specific communities and neighborhoods

FEMA publishes a disaster response framework (DHS, 2011, 2013) that frames a "whole community" approach to disaster response and recovery. This whole community approach represents a framework of cross-sector stakeholder relationships that engage private businesses, public agencies, and nonprofits in emergency response and recovery. These cross-sector relationships can more accurately be characterized as members of the private, public, and plural sectors (Mintzberg, 2015) that are active within stakeholder relationships or communities. In Mintzberg's (2015) framework, private sector organizations are just that—private businesses that usually operate in market environments. Public sector organizations are local, state, and federal agencies, as well as institutions such as the executive, legislative, and judicial branches. Traditionally, the plural sector has been defined as the voluntary or third sector and thought of primarily as nonprofit organizations. However, the plural sector includes a much broader range of organizations: not only nonprofits, but also social enterprises, cooperatives, and labor unions. Understanding the FEMA whole community framework and the larger processes of emergency response and long-term recovery requires an understanding of the cross-sector relationships within a disaster-impacted community.

These cross-sector relationships comprise the civic networks of a community. It is the regional or community civic networks that represent the whole community of stakeholders that federal disaster planning seeks to mobilize in response and recovery. Stakeholders in these response and recovery network may (a) be existing organizations

active in pre-disaster civic networks; (b) part of planned emergency response protocols and procedures, (c) identified in pre-disaster operations plans or frameworks such as the whole community framework; or (d) be emergent, that is, a new organization that "pops up" in disaster-impacted communities to solve a problem, meet unmet needs, or serve underserved neighborhoods, populations, or communities (Drabek & McEntire, 2003; Kreps & Bosworth, 1993; Majchrzak et al., 2007; Stallings & Quarantelli, 1985). Emergency response networks are usually temporary in nature; they respond to events during natural disaster and provide assistance in the immediate aftermath of the disaster and during a short-term recovery period that may last from a few days to a few months (DHS, 2013; Kapucu et al., 2010). In contrast to short-term recovery, long-term recovery is a multiyear process that relies heavily upon organizations active in pre-disaster civic networks in the impacted community, new or emergent organizations created after the disaster, and experienced disaster relief organizations that may have prior experience working with one another in previous disasters.

## Civic Networks

The analysis of community—or civic—networks has a rich sociological history (Diani, 2015; Galaskiewicz, 1979, 1997; Laumann, Galaskiewicz, & Marsden, 1978), where community networks are understood as interorganizational relationships defined by resource exchange, power dynamics, and participation in shared events within the community. In turn, civic networks comprise the social infrastructure of a community. Social infrastructure is the organizational landscape of a community and provides the foundation from which information, resources, and services flow. Social infrastructure is a set of relational ties that connect organizations within a geographically defined region,

such as a local community or nation-state (Diani, 2015; Doerfel & Taylor, 2004; Taylor & Doerfel, 2003, 2011). Social infrastructure provides the "cement of civil society" (Diani, 2015, p. xvii) and comprises funding relationships, social services delivery, policy networks, advocacy and advocacy coalitions, local governance activities, voluntary associations, and assorted nonprofits and social enterprises engaged in community building and direct services efforts. Social infrastructure is "cemented" through engagement in public events as well as through resource exchange and planned interorganizational coordination (Galaskiewicz, 1979, 1997; Schermerhorn, 1975; Van de Ven & Walker, 1984). Social infrastructure provides a level of stability within the community over time, sometimes allowing differences in power, status, and social capital to be revealed (D. P. Aldrich, 2012). However, this stability is not rooted in individual culture and identity; rather, it is rooted in organizational relationships that are role- and position-based and emerge through repeated interactions over time (Galaskiewicz, 1979).

Like social structure, social infrastructure is created through social and organizational interactions that manifest themselves as patterns of communication, coordination, and resource exchange (Diani, 2015; Monge & Contractor, 2003). These relationships are developed over time, but shocks to the system such as national rebuilding efforts following civil war (Doerfel & Taylor, 2004; Taylor & Doerfel, 2003), natural or man-made disasters (Chewning, Lai, & Doerfel, 2013; Kendra & Wachtendorf, 2003, 2016), and financial crisis (Davis, 2009) can create new patterns of interaction as new social and organizational relationships are formed and new organizations enter the community. As such, social infrastructure is a relational organizing process that can be designed to accomplish civic goals, foster enactment of new roles and goals in response

to external shocks, or provide a measure of stability, connection, and coordination to a community, region, or nation over a longer period of time. In long-term recovery, networked stakeholder relationships provide the social infrastructure of a disaster-impacted community through a mix of existing community organizations, traditional disaster relief agencies active in the community, and emergent organizations formed after the disaster to meet specific needs within the community.

Unlike social capital, social infrastructure relies on a mix of organizations with different histories, capabilities, resources, and identities to create a web of community relationships. Not all organizations will have the same degree of social capital, and each organization will not have equal access to other organizations and resources. Rather, the web of relationships and the pre- and post-storm civic networks of a disaster-impacted community provide the social and organizational equivalent to the physical infrastructure of the physical buildings, roads, bridges, electrical, water, and wastewater grids and pipelines of a community. In short, social infrastructure provides the underlying framework of civil society. This web of community relationships is based upon "*pluralistic interdependence*" (Deetz, 2017) in which organizations represent a variety of interests or needs and have varying levels of dependence upon one another, despite differences in culture, identity, organizational mission, or operating logics. Both conflict and collaboration are present in these webs of relationships, with access to sources of funding often the most prevalent source of conflict among plural sector organizations.

**Interdependence Among Networked Stakeholders**

Resource dependency theory explores organizations connections to their external environment (H. E. Aldrich, 1976; Pfeffer & Salancik, 1978) and provides a framework

through which to assess interorganizational partnerships as a process of exchange in which information, knowledge, capital, and material goods flow between different organizations. Understanding linkages between an organization and its external environment has developed as a critical part of organizational theory over the last 40 years (H. E. Aldrich, 1976; Perrow, 2014) as organizations seek to either buffer themselves from external events or seek new out connections to funding resources, employees, volunteers, customers, information, and material supplies. Organizations may be either highly dependent upon one another or have minimal interdependence with one another (Pfeffer & Salancik, 1978), and this range of interdependence has an impact on the possibilities of trust, collaboration, governance, and exchange. Funding issues are often a key driver of interorganizational relationships (Benson, 1975; Galaskiewicz, 1997; Van de Ven & Walker, 1984) as well as a major source of collaboration among plural sector organizations. Funding models may also influence the development of networked stakeholder relationships and the provision of services to clients and communities (Garrow, 2014; Lu, 2015).

**Social Capital and Networked Stakeholders**

Social capital has gained increasing salience as an explanatory mechanism for recovery from natural or technological disaster (D. P. Aldrich, 2012; D. P. Aldrich & Meyer, 2015; Doerfel et al., 2010). *Social capital* is defined in multiple ways, as individual or family attributes, access to different types of resources located in a particular social network, and the habits, customs, and behaviors in which individual, community, and organizational activities take place (Lin, 1999; R. D. Putnam, 2000). Different communities, organizations, and organizational fields access social capital

differently, and social capital may have multiple meanings, depending upon the theoretical frame being used to explain social capital (Lin, 1999).

Social capital can be analyzed at both the individual and group level, and can be framed from a cultural or economic perspective. In Lin's (1999) framework, cultural capital involves the reproduction of dominant values typically expressed through language, educational, and cultural institutions, while social capital reproduces group norms and values. Not every member of a community may have access to cultural and social capital, though. A networked perspective on social capital holds that resources (e.g., economic, educational, cultural, reputational) are embedded within social and organizational networks and that it is the overall set of relationships that individuals, communities, and organizations have with one another that creates social capital. In emergency response and long-term recovery, not everyone in an impacted community may have access to the social and organizational relationships needed for speedy and effective recovery. Civic networks and the networked stakeholder relationships created as part of long-term recovery processes may help to address some of these imbalances of social and cultural capital in impacted regions. One of the key challenges facing theories of social capital is the tension between the notion of social capital as an individual or collective resource. The ongoing controversy in the social capital literature is whether the benefits and resources of social capital accrue at the individual level or the group level (Lin, 2001, pp. 7–9) and the processes through which benefits and resources may become aggregated within families, groups, or institutions.

Social capital may best be understood as organizational capital in which individual social capital accrues through individual relationships with those organizations

that best provide connections to other organizations. These organizational connections are what may enable an individual or family to access the resources necessary to increase its social and cultural capital (Small, 2009b). Social capital, then, is "organizationally embedded" within the social infrastructure of a community as part of the networked stakeholder relationships active in a community or long-term recovery process. The networks of inequality to which Small (2009b) referred relative to the role of New York childcare centers in building social capital occur when parents interact with childcare centers or executives of centers that lack connections to other organizations with social and cultural capital.

It is the lack of capital by the organization, not the individual's own lack of social relationships that impedes access to information, resources, and power. Within long-term recovery, organizational capital may be the salient factor in successful community and individual recovery. If organizations are part of strong networked stakeholder relationships, they may have wider access to important sources of information resources, and the power needed for timely and successful recovery. To date, though, the general consensus across the family of social capital theories is that social capital revolves around social interaction (Lin, 2001) and that it is networked processes of social interaction across time through which individuals, families, institutions, and communities accrue social capital. Social capital can be viewed, then, as a mainly relational asset (Lin, 2001, p. 8) in which resources and benefits are properties of the network as a whole, rather than as properties of particular individuals, families, institutions, and communities.

Lin (2001) further defined social capital as embedded resources that can be accessed to create a particular outcome (p. 12). In classic social capital theory, these

resources may be related to job hunting (Granovetter, 1973), career advancement (Gargiulo & Benassi, 2000), status, or authority. Social capital may also be defined by the place in the network occupied by the individual, the family, the institution, or the community (Lin, 2001). These two dimensions—embedded network resources and network location—serve as the primary framework for Lin's definition of social capital as "resources embedded in a social structure which are accessed and/or mobilized in purposive actions" (Lin, 2001, p. 12). Resources within a network are a set of social or organizational ties that facilitate access to information or material goods such as food, water, or shelter. These embedded social and organizational resources may, in turn, influence key decision makers or other leaders to take or not take certain actions, serve as validation of one's membership, skills, education, or identity, or serve as an interpersonal or interorganizational verification of "social credentials" (Lin, 2001 p. 7), and reinforce one's identity and membership in the family, group, organization, or community.

As a relational asset, social capital is a function of network relationships and represents the embedded resources of a community. Social capital can be both inclusive and exclusive. In other words, it can be transparent, open, and democratic, allowing ease of access to a wide range of individuals and organizations, or it can be exclusive, excluding others based on language, education, cultural competencies, knowledge, and expertise.

**Types of Social Capital in Disaster Response and Recovery**

Three primary types of social capital have salience in networks of recovery: bridging capital, bonding capital, and linking capital.

*Bridging capital* connects together disparate parts of a social organizational or network. Bridging capital, often accessed or provided by the gatekeepers or brokers within the system, allows individuals, families, groups, organizations, or communities to reach out beyond their immediate set of personal and organizational connections. Through these new and extended connections, individuals, families, groups, organizations, and communities can tie together different parts of the same community network or connect new networks of people, organizations, and resources into their existing network (D. P. Aldrich & Meyer, 2015; Doerfel et al., 2010; Harris & Doerfel, 2016).

*Bonding capital* "cements" together communities and may be a source of social cohesion and resilience (D. P. Aldrich, 2012; D. P. Aldrich & Meyer, 2015; Diani, 2015) that enables communities to take public action such as rebuilding after disaster, providing emotional and spiritual support, and policy advocacy. Communities with high degrees of bonding social capital may have access to churches and voluntary associations, as well as locally owned and operated businesses within their neighborhoods and communities that serve as focal points for community and neighbors to bond. Bonding capital may also be prevalent through social ties with strong or "sticky" ties cementing together families, neighborhoods, and communities with similar racial, ethnic, economic, employment, and educational profiles over generations.

*Linking capital* connects sources of power—institutional, political, and economic—to individuals, groups, families, organizations, neighborhoods, and communities (D. P. Aldrich, 2012; D. P. Aldrich & Meyer, 2015; Knoke, 1990). Brokerage ties may play an important role in social and organizational networks that are

able to transcend their boundaries and connect to leaders, decision makers, and resource owners operating in different parts of their own network or in separate networks altogether.

**Activation of Social Capital in Emergency Response and Long-Term Recovery**

Bonding, bridging, and linking social capital may each be activated at different times throughout the disaster life cycle. The deep cultural and historical ties of bonding capital may be most salient during the lead-up to disaster, during the time of impact, and immediately afterwards during emergency response and short-term recovery. Bridging capital—the ability of individuals, families, neighborhoods, or communities to reach out to and connect with resources beyond their immediate boundaries—may play be most salient during processes of long-term recovery. Bonding capital, or the capital that cements together the social relationships and civic networks within communities, reinforces existing social and organizational ties as well as identity (Chamlee-Wright & Storr, 2009; Fussell, 2015; Kroll-Smith, Baxter, & Jenkins, 2015). As such, bonding capital may play a role in enabling communities to survive initial impacts and the immediate aftermaths of a natural or technological disaster. However, these close ties and dense connections between members of a community may also be obstacles during processes of short- and long-term recovery when the ability to marshal together far-flung sources of information, power, and resources is limited because of displacement from homes, disrupted social and physical environments, and a lack of connections to other neighborhoods, communities, or organizations outside of the immediate social and physical environment.

Research in post-Katrina New Orleans points to the possibility that specific cohesive neighborhoods such as the Lower Ninth Ward may have been impeded in their recovery by overreliance on friends, family, and neighbors for collective problem solving and rebuilding (D. P. Aldrich, 2012; D. P. Aldrich & Meyer, 2015). Linking capital—the bonds or connections between individuals and sources of power such as formal institutions or elected officials—may also play a role long-term recovery, more specifically as a resource or process that activates links between formal and informal patterns of communication in neighborhoods, communities, and organizations. These links, in turn, may connect neighborhoods, communities, and organizations to the resources and information necessary for long-term recovery to occur.

**Networked Stakeholders and Trust**

Trust networks are interpersonal or interorganizational networks that buffer participants from the external environment and potential exogenous shocks. Developed through kinship, shared religion, and trading relationships, trust networks depend on strong ties, shared values, and common social norms that buffer members of these networks against the actions of existing, usually dominant, political and social actors (Tilly, 2005). The interplay between trust networks and larger systems of governance, what Tilly (2005, p. 4) termed “trust and rule,” is a crucial part of understanding politics and governance. Trust networks are embedded within the plural or private sectors, and their social and organizational relationships with the public sector may become “contentious” after a long period of steady-state interactions (McAdam, Tarrow, & Tilly, 2001, p. xvii). Tilly (2005) and McAdam et al. (2001) examined trust networks and contentious politics with a focus on larger processes of institutional and social change;

social movements, revolution, strikes, labor activism, and broad movements of democratization. The twin frameworks of trust networks and contentious politics may prove useful for understanding issues of resource dependence, power, collaboration, and conflict within networks of recovery after disaster.

Long-term conflict over recovery in post-Katrina New Orleans illuminates the erosion of trust between the community and the institutions responsible for recovery. Katrina is one of the most significant natural disasters to have occurred in U.S. history. The population of New Orleans declined from 484,674 residents in April 2000 to 386,617 in July 2015. In July 2006, nearly 1 year after the storm, the population in New Orleans was only 230,172. During and in the aftermath of Katrina, approximately 80% of the city was flooded and more than 1 million people were displaced throughout the Gulf States impacted by Katrina. Depths of flood waters in New Orleans ranged from 1 to 10 feet throughout town. Nearly 70% of all occupied residences (134,000) in New Orleans suffered damage, and there was an estimated $135 billion dollars in damage from Katrina. Approximately $120.5 billion was spent on relief and recovery efforts, with approximately $75 billion dollars flowing to emergency response, leaving only $45 billion dollars, or 38% of recovery funding, for rebuilding efforts (Plyer, 2016).

New Orleans is a city of neighborhoods, families, and tradition. It is one of the oldest cities in the United States, both historically and culturally. Generations of families are rooted deep within neighborhoods. These neighborhoods provided places of refuge for many marginalized populations (Chamlee-Wright & Storr, 2009; Piazza, 2005). New Orleans is a state of mind, firmly established in a specific place in which the past is present and the present is past. This unique profile results in strong, tight networks of

family and business ties built on trust as ubiquitous as the mists, bayous, enslavement, diasporas, migrations, and violence that shaped the city. Despite deep divisions of race and class (Hartman & Squires, 2006; Wailoo, O'Neill, Dowd, & Anglin, 2010), New Orleans is a tightly knit city and one in which trust networks of kin, religion, and commerce predominate (Airriess, Li, Leong, Chen, & Keith, 2008).

The large-scale disruption of neighborhoods, social clubs, krewes (private social organizations), corner bars, and local grocery stores caused by Hurricane Katrina eroded already fragile connections between existing trust networks and the city, state, and federal government. The disruption of trust networks and the erosion of connections between trust networks and the political networks of municipal and state government in the aftermath of Katrina complicated efforts at recovery and may have been used as a political strategy to remake the city in the image of elites. Rather than being rebuilt as a "Chocolate city" (Nagin, 2006) New Orleans stands in danger of being re-created as a Disneyland South, where the old customs and habits of trust networks are on display without the social relations and communication networks that made possible the myriad trust networks of old New Orleans. Trust among networked stakeholders becomes a critical part of long-term recovery processes after disaster.

**Networked Stakeholder Relationships and Long-Term Recovery**

The idea of stakeholders as networked relationships is decidedly underdeveloped in stakeholder theory, and there has been little empirical research conducted on the role of stakeholder networks within and across communities (Doerfel & Taylor, 2004; Rowley, 1997; Taylor & Doerfel, 2003, 2011). Although R. E. Freeman (1984) took a more embedded view of stakeholder relationships (Strand & Freeman, 2015), most

perspectives on stakeholder relationships still identify specific organizations and roles as primary and secondary stakeholders (R. E. Freeman et al., 2010) and as a process to be managed rather than engaged (Clarkson, 1995; Mesure, 2005). While the natural resources literature does address some of these issues as part of stakeholder engagement strategies (Fliaster & Kolloch, 2017; Grimble & Wellard, 1997; Prell, Hubacek, & Reed, 2009; Reed et al., 2009; Scott & Oelofse, 2005), the role of networked stakeholder relationships as a space for problem solving and as a mode of coordination remains underdeveloped in the communication and organizational studies literature. Analyzing processes of long-term recovery as communication and organizing problems provides an opportunity to develop empirical evidence on networked stakeholder relationships and the role of collaborative communication in building strong communities.

# CHAPTER 4

# LONG-TERM RECOVERY AFTER DISASTER

While a natural disaster would seem, at first glance, to pit people against the elements, natural disasters are not merely metrological events that disrupt and devastate communities. Natural disasters are a result of social processes enacted long before a triggering event such as a hurricane, earthquake, or tornado occurs (Tierney, 2014). Although the focus of this study is on one single natural disaster—Hurricane Sandy—the fundamental roots of catastrophic events in social processes hold true for technological and economic events as well (Perrow, 2011; Tierney, 2014).

Like disaster, long-term recovery has an impact on individuals, families, groups, neighborhoods, and communities in different ways. The multiple levels at which disaster, response, and recovery unfold make it difficult to generalize about effects and outcomes. This multilevel context also hampers efforts to design policy that builds from our collective experiences of disaster, response, and recovery and addresses the long-term needs of communities and individuals impacted by these events. Processes of long-term recovery are little understood, and the connections between long-term recovery, risk, and resilience even less understood (Rubin, 2009; Tierney, 2014; Union of Concerned Scientists, 2013). One area that may enable a better understanding of these connections and the overall processes of long-term recovery is the organizational landscape of disaster-impacted communities and the networks of recovery enacted to help individuals, neighborhoods, and communities to move forward toward a new normalcy.

## Long-Term Recovery Processes After Disaster

Long-term recovery after natural disasters is an under-studied social and organizational phenomenon. While there is abundant literature on emergency response after disaster (Brooks, Bodeau, & Fedorowicz, 2013; Carlson, Poole, Lambert, & Lammers, 2016; Comfort, Oh, Ertan, & Haase, 2013; Kapucu et al., 2010; Kapucu & Garayev, 2014; Kapucu & Hu, 2014; Lai et al., 2017; Nowell & Steelman, 2015), the processes of long-term recovery are an understudied area of disaster response and recovery (GAO, 2016; Rubin, 1985, 2009; Yezer & Rubin, 1987). Disaster response and recovery is widely understood as a phased process (DHS, 2008, 2013; Doerfel et al., 2010; Harris & Doerfel, 2016) that proceeds from an initial point of impact in a particular place at a particular time to the restoration of some sort of normalcy and the completion of community, resident, and business recovery at some indeterminate point in the future (Chamlee-Wright & Storr, 2009; Friesema, Caporaso, Goldstein, Lineberry, & McCleary, 1979; L. A. Johnson & Olshansky, 2017; Wright, Rossi, Wright, & Weber-Burdin, 1979). Long-term recovery is a discrete social and organizing process (Bosworth & Kreps, 1986; Kreps & Bosworth, 1993; Rubin, 1985) that needs to be understood as a distinct phase of disaster response and recovery (Rubin, 1985, 2009; Smith & Wenger, 2007) that is more intimately connected to the underlying civic, political, and trust networks of a community (Diani, 2015; Knoke, 1990; Laumann et al., 1978; Tilly, 2005) than it is to the rapid collective mobilization required to immediately assist and secure a disaster-impacted community (Dynes & Tierney, 1994). Long-term recovery is best understood as an organizational sequencing of specific activities over time to meet the needs of impacted

communities and residents. Figure 2 shows Rubin's (2009) phases of emergency response and recovery from Day 0 through Week 500 (Year 10).

Although increased attention has recently been paid to the processes and effects of long-term recovery on individuals and communities (Adams, 2013; Browne, 2015; Chamlee-Wright, 2010; DHS, 2011; Rubin, 2009), a comprehensive understanding of long-term recovery from an interdisciplinary perspective that makes visible the organizational landscape of recovery continues to elude policy practitioners and academics alike. Long-term recovery is a "neglected component of emergency management" (Rubin, 2009, p.1) and has traditionally focused on the disbursement and management of federal assistance programs for rebuilding rather than assessment of community social structures and governance processes (Rubin 2009; Smith & Wenger, 2007) and the inclusion of community needs, wants, and ideas into the rebuilding and recovery process. When community-level action is included in recovery processes, the focus is often on intergovernmental relations and processes among formal public agencies, rather than the expansive networks of relationships that underpin communities and civil society (Diani, 2015; Laumann et al., 1978; Mische, 2009). Rubin's (2009) assessment of long-term recovery also falls into this trap with a focus on connections and conflicts among local, state, and federal agencies and officials rather than a discussion of cross-sector private, plural, and public sector relations.

While community needs and wants are depicted in Rubin's (2009) three-step model (see Figure 3), the focus of Rubin's discussion is on problems with intergovernmental relations rather than on cross-sector stakeholder relationships across all three sectors. Local knowledge and culture continues to be a black box and is often

overlooked by emergency management planners and disaster response and recovery specialists (Browne, 2015; Perrow, 2011). That is not to say that the community component of response and recovery is missing, as evidenced by the FEMA community approach to national response planning (DHS, 2013) and the deployment of FEMA volunteer agency liaisons to disaster-impacted communities. Rather, it is to look at the long history of disaster research and emergency management planning and the limited policy and academic literature on the processes of long-term recovery.

Some recent scholarship on long-term recovery has emerged from the Katrina experience over the last few years, as the 10th anniversary of Katrina was marked in 2015. However, the majority of research on long-term recovery to date after Katrina emphasizes individual and neighborhood impacts rather than the organizational and community relationships underpinning long-term recovery. Recent long-term recovery scholarship in Katrina-impacted areas has focused on an 8-year process of recovery for a large, historically rooted African American family in St. Bernard Parish, Louisiana (Browne, 2015), conflict between two recovering New Orleans neighborhoods and local New Orleans municipal government (Kroll-Smith et al., 2015), a 7-year study of children and teens during recovery from Katrina (Fothergill & Peek, 2015), and a critique of the use of market-driven governance to solve problems of long-term recovery after Katrina (Adams, 2013). Although these studies are important and engaging and they occasionally provide a peek into the organizational connections and disconnections underlying long-term recovery, these studies typically fail to account for the stakeholder networks and social infrastructure necessary for community recovery from disaster.

To fully understand how long-term recovery unfolds, it is important to consider the social and organizational dynamics of the impacted communities and the relational ties between different organizations managing different aspects of the recovery process. Stakeholder theory and networked theories of communication and organizing (Doerfel, 2016; R. E. Freeman, 1984; Monge & Contractor, 2003; Powell, 1990; Strand & Freeman, 2015; Thompson, 2003) provide the intellectual foundations for developing an understanding of long-term recovery. With few exceptions, authors of network analyses of disaster response and recovery have focused primarily on emergency response phases and eschewed larger processual and longitudinal questions of organizational and community relationships during the recovery phases following a natural disaster (Carlson et al., 2016; Kapucu et al., 2010; Kapucu & Hu, 2014). Emergency response is not only sexier than long-term recovery, but also provides a more specifically bounded geographic or organizational space from which to capture organizational relationships. In the days and weeks after disaster, it is easy to identify which organizations are doing what tasks simply by connecting with an emergency operations center or physically going to impacted areas and witnessing the people and organizations active in public safety, sheltering, feeding, muck-outs, and debris removal. Long-term recovery is a much more diffuse set of processes that take place over multiple years. Without access to coordinating bodies such as long-term recovery groups, community organizations, case management service organizations, or nonprofit builders' tables, it is difficult to identify which organizations are active at any given time and the services in which they are engaged.

Long-term recovery is not simply a third or fourth phase of a disaster response cycle (though it is that); rather, it is part of the broader life-course of a community. Long-term recovery needs to be understood as an interconnection of community stakeholders, disaster assistance and recovery organizations, and public agencies. Some of these organizational relationships may have existed prior to the disaster, while others may have been formed during the aftermath of the emergency response and short-term recovery phases. Still others may develop as organizations gain experience working with one another during the multiyear process of recovery.

Browne (2015) detailed some of the language and cultural barriers that the St. Bernard Parish family in her study encountered in its collective recovery processes, Browne she described as a “bureaucratic tin ear” (pp. 91–96), impervious to the sounds, speech, and rhythms of St. Bernard Parish. Institutional failures, communication breakdown, existing formal and informal work practices, and communication patterns are all present in Browne’s account of the long-term recovery processes impacting this St. Bernard Parish family. One of the most noticeable accounts is of how family members, all of whom were skilled workers and laborers before the storm with deep knowledge of the physical infrastructure, geography, and culture of the parish were continually passed over for FEMA and road/home construction, transport, and debris removal business contracts despite their knowledge of the community and its needs. Family members had even invested in new trucks and equipment to haul FEMA trailers into St. Bernard Parish and debris out of the parish in anticipation of new work associated with the recovery. Most were not able to recoup the cost of their investments. This vivid example of gaps

between family, community, and larger institutional processes of recovery highlights flaws in existing federal models of whole community recovery after disaster.

The organizing processes and communication practices of long-term recovery are siloed between the public, plural, and private sectors. For the public sector, the problem is one of rebuilding public infrastructure and public assistance for impacted residents and communities. For the plural sector, the problem is one of rebuilding homes, case management for individuals and families, financial assistance, communication flows, and information management. The private sector sees disaster response and recovery simply as a supply chain problem or as part of a broader corporate social responsibility strategy. The Hurricane Sandy Rebuilding Task Force (HUD, 2013) included only elected leaders on the task force, even though plural sector organizations had boots on the ground, extensive experience in short- and long-term recovery, and were tasked with providing case management services to the most vulnerable populations in the region. A long-term recovery assessment report prepared by the New Jersey Voluntary Organizations Active in Disaster ([NJVOAD] 2016) detailed the role New Jersey nonprofit organizations played in long-term recovery, but focused only on relational ties with funders from the philanthropic community rather than relational ties with public agencies and private sector providers of building materials and home goods. From the ground, it can often appear as though organizations are operating independently of one another, especially if they are operating in different organizational sectors or different regions.

**Phases of Recovery**

Problems related to the organizational sequencing activities, post-disaster coordination, and collaboration among stakeholders may be compounded by the phased

nature of recovery in which there is overlap and blurred boundaries between the phases of emergency response, short-term recovery, and long-term recovery. Disasters are phased processes in which different communication practices and organizing processes are enacted at different points in time (DHS, 2008, 2013; Doerfel et al., 2010; Kreps, 1984; Kreps & Bosworth, 1993; Lai et al., 2017). These different phases, roles, and responsibilities are not always clearly differentiated on the ground and can often bleed from one phase into the next. Compounding these issues, there are no clearly defined phases that demark the different organizational rhythms and activities that are commonly accepted among disaster professionals, emergency management, policy makers, and academics. The most widely accepted model is the FEMA model containing four phases of emergency management: preparedness, response, recovery, and mitigation (see Figure 4).

Recovery is assumed to be a function of emergency management, which puts recovery into the purview of emergency managers and first responders rather than planners, case managers, social workers, and engineers. *Recovery*, as traditionally defined, is as an outcome of emergency response, especially when analyzed under the FEMA four phases model, rather than a distinct phase of its own. What is most interesting about FEMA disaster response and recovery models is that they do emphasize a “whole community” response to disaster (DHS, 2008, Rubin, 2009), which originated in the early 2000s before Hurricane Katrina (Browne, 2015) forced a wholesale reevaluation of response and recovery in the United States. However, in practice, short-term recovery—and in many instances, long-term recovery as well—continues to operate under an incident command system, with significant attempts to organize and order

recovery activities through vertical channels of communication and hierarchal rather than horizontal systems (Ambinder et al., 2013; Kapucu et al., 2010; Stallings & Quarantelli, 1985).

One net effect of this perspective is to sideline emergent local organizations in favor of larger, more established nonprofit organizations and NGOs. After disaster, emergent organizations will often pop-up in specific neighborhoods and communities as a response to unmet needs and gaps in the response and recovery systems. Within this vertical framework, municipal leadership is privileged over nonprofit or grassroots community leadership in national and interagency task forces designed to incorporate local information and perspectives into the recovery process. This approach creates a series of filters as one sector's perspective is privileged over other sectors' perspectives, and crucial information at the neighborhood and community level may be lost in translation.

**Historical Perspective**

Long-term recovery after disaster is an understudied social phenomenon with which planners, emergency managers, and elected officials have historically struggled (Friesema et al., 1979; Nigg, 1995; Rubin, 2009). Long-term recovery is distinct from emergency response and even short-term recovery, but it is often treated as simply another phase of emergency response and recovery. Long-term recovery is a governance problem and draws from existing civic networks and the resources embedded within a disaster-impacted community. While outside and emergent organizations play important roles in the civic networks engaged in long-term recovery, it is the existing social and organizational relations of impacted communities that shape the degree and extent to

which outside organizations interact with and influence decisions within a disaster-impacted community. Emergency response and crisis management make the headlines and garner researcher attention after every disaster. The tortuous slog of long-term recovery is usually overlooked by media, public officials, and private citizens alike.

Literature on long-term recovery is scarce and there is no established community of scholars and practitioners, making an assessment of recovery practices difficult at best (C. B. Rubin, personal communication, August 23, 2017). Over the last decade, recovery has been conflated with community resilience, community revival, and social entrepreneurship in disaster-impacted communities (Ride & Bretherton, 2011; Storr, Haeffele-Balch, & Grube, 2015), and real estate and municipal interests may take actions that increase the value of land and housing stock in coastal communities where the cost of rebuilding for long-time residents has become prohibitive (Adams, 2013; Andrews, 2016; Slachetka, 2014). Resilience activities such as increasing housing code standards, redeveloping certain neighborhoods and communities to meet 100- or 500-year flood or hurricane standards, or hardening utilities may detract from recovery processes (C. B. Rubin, personal communication, August 23, 2017). These administrative matters often incorporate activities not directly related to residential recovery and are unsupported by federal enabling legislation, regulatory authority, or funding mechanisms such as community development block grants (CDBG).

However, grassroots community resilience efforts and social entrepreneurship in disaster-impacted communities may actually reflect the activation of civic networks seeking to fill in the gaps between federal and national response efforts and community needs. The tension between structures enacted through the federal response and recovery

frameworks (DHS, 2008, 2011, 2013) and the local communities to which they respond make long-term recovery a contested and under-resourced social process. Tensions between local and federal response structures, and between community and institutional responses may be either exacerbated or mediated by local social, economic, and environmental conditions within the disaster-impacted community or region. Power imbalances between organizations, social inequalities, and highly vulnerable populations may serve as obstacles to effective and equitable recovery. In contrast, public involvement across all populations and neighborhoods, equitable distribution of power and resources, and pre-disaster planning are all key elements of sustainable community recovery frameworks (Smith & Wenger, 2007). In practice, however, sustainable community recovery frameworks are difficult to implement and may exclude certain populations, neighborhoods, or communities. Language barriers and lack of or inability to access social capital, income, and assets may all impede equitable participation in the processes and outcomes of recovery. Exclusion was particularly relevant in post-Katrina New Orleans during the area recovery processes (J. R. Elliot & Pais, 2006; Fussell, 2015; Kroll-Smith et al., 2015).

Smith and Wenger (2007) defined *disaster recovery* as “the differential process of restoring, rebuilding, and reshaping the physical, social, and economic environment through pre-event planning and post-event actions” (p. 237). Recovery is as much a social process as a physical rebuilding process; it is non-linear, and it impacts different types of institutions, social groups, and communities differently. Context matters in long-term recovery, with size, scope speed, and frequency of the disaster, socioeconomic characteristics of impacted communities, strength of community civic networks, and

organizational characteristics and capacity of community stakeholders all playing a major role in how long-term recovery may unfold.

Mileti (1999) posited that there are six elements to successful long-term recovery. These include (a) stakeholder engagement (community involvement), (b) information, (c) organizations and organizational capacity, (d) procedures that enable rapid-fire problem solving and decision making, (e) damage evaluation, and (f) finances. Mileti's framework incorporates the DHS (2011, 2013) "whole community" approach in which a broad array of stakeholders from across the public, plural, and private sectors are integrated into the community recovery process (Harris & Doerfel, 2016).

Disaster recovery was not even in the national lexicon until the experiences of Katrina made visible the flaws and systemic failures of response and recovery in the United States. The National Disaster Recovery Act was enacted in 2006 and designed to serve as a parallel organizing framework to the national response framework (DHS, 2008, 2013). Like the national response framework, the national disaster recovery framework takes a whole community approach in which organizations across the public, plural, and private sectors are mobilized and community stakeholder networks interact with the larger national networks of recovery. The national disaster recovery framework (DHS, 2011) focuses on organizational capacity building inside FEMA and larger processes of interagency and interorganizational coordination.

Each of the 10 FEMA regional agencies has a designated federal disaster recovery coordinator (FDRC) with the responsibility to establish recovery support functions and work with states to establish and implement state pre-disaster recovery plans to be executed in the event of a disaster. Under the national disaster recovery framework,

disaster recovery is a state function and the FDRC's main role is to coordinate disaster planning at local, state, and federal levels. Post-disaster, the FDRC serves as the locus of coordination for federal recovery efforts and is responsible for enacting the six federal recovery support functions. Recovery support functions are responsible for problem-solving, resource access, facilitating effective use of funds flowing into a disaster-impacted community from across the public, private, and plural sectors, and to facilitate coordination across all responding organizations in their region. There are six recovery support functions established by the national disaster recovery framework: community planning and capacity building, economic recovery, health and social services, housing, infrastructure systems, and natural and cultural resources. Figure 5 provides an overview of the interorganizational structure of the FEMA recovery support function.

It was not until 2011 that the first national disaster recovery plan was released (DHS, 2011) and almost immediately put to the test following Hurricane Sandy in 2012. By 2016, however, it was clear that the national framework for recovery was not playing a primary role in post-Sandy recovery and that very few communities had put these recommendations into place (GAO, 2016). The GAO (2016) reported that only two of the five states reviewed by the GAO had put pre-disaster recovery plans in place, as was recommended in the framework. In New Jersey, recovery leadership continued at the municipal and residential level, with the state focused on administering various federal grant programs from FEMA and HUD.

## Economic and Social Impacts

Authors of the earliest studies on long-term recovery argued that there were no lasting economic and social impacts from large-scale disaster (Haas, Kates, & Bowden,

1977; Wright et al., 1979), but research since the 1970s has shown that the social and economic impacts of large-scale disaster can linger for years and reshape the physical and socioeconomic character of a community (Adams, 2013; Browne, 2015; Chamlee-Wright & Storr, 2009; Rubin, 2009; Storr et al., 2015; Yezer & Rubin, 1987). These changes in the social and physical landscape of a community both shape and are reshaped by local governance and civic networks and may cause conflict within the civic networks wrestling with recovery. Organizations engaged in disaster relief and recovery may diverge from one another or come into conflict with one another over resources, organizational capabilities and capacity, divergent missions, and populations served. This conflict may impede collaboration at first, but may also provide opportunities for new organizations to emerge and communication practices to be put into place.

**Race, Class, and Recovery**

The literature on race and class in recovery is even more sparse than that of long-term recovery, despite the economic and social changes that large-scale disaster have upon a community or region. Although there has been some attention paid to race and class in emergency response after the experiences of Hurricane Katrina (J. R. Elliot & Pais, 2006; Hartman & Squires, 2006; Wailoo et al., 2010), no systematic study of how race and class affect access to resources, connections with recovery organizations, and recovery status in the social processes of long-term recovery has been conducted. Existing literature on the class, race, and socioeconomic characteristics of disaster is sparse and includes Geipel's (1982) study on the northern Italian earthquake of 1976 in which class inequalities actually deepened while recovery was underway.

**The Bureaucratic Tin Ear**

Browne's (2015) study of family recovery in St. Bernard Parish, Louisiana, comes closest to addressing these issues. Browne highlighted issues of local versus institutional recovery and conflicting communication practices in St. Bernard Parish after Hurricane Katrina. The large African American family whose long-term recovery Browne documented had roots in the area dating back to the 19th century and family members with long-term jobs in parish government. Despite deep parish roots, working relationships, and the social capital this engenders, many members of "the Peachy Gang" struggled with the communication practices and organizational procedures of the larger state and federal institutional recovery frameworks. Browne (2015) referred to this condition as the "bureaucratic tin ear" (p. 94) and detailed the way in which communication breakdowns occurred. The bureaucratic tin ear includes not only mismatches between institutional language and the language of the "the Black bayou" (Browne, 2015, pp. 91–93), but also distantiated bureaucratic processes that manifested through phone interviews and forms instead of field work and boots-on-the-ground case management, which would be more reflective of the face-to-face communication that marked traditional parish and community life. Despite the move by FEMA toward a whole community approach to recovery, local hires for recovery work were made through a temporary agency, often of people not from St. Bernard Parish or New Orleans and unfamiliar both with FEMA processes and the localities of the people they were trying to help.

Despite six generations of experience in St. Bernard Parish, and jobs as supervisors on the parish road crews and in parish offices, local community members

were often passed over for recovery and rebuilding jobs. One family member, Buffy, a road crew supervisor, stayed in the parish during the Hurricane to keep facilities safe and roads clear and eventually had to be rescued off the roof of a parish building (Browne, 2015). Despite deep local knowledge and heroic actions during the storm, Buffy and other family members were ignored by FEMA and state recovery authorities when contracts for debris removal and other rebuilding activities were signed, despite new investments in trucks and trailers by parish families based on federal and state assurances to survivors that local hires would be given priority.

The lack of attention to local language, local knowledge, and local networks continued with the establishment of a parish long-term recovery group (LTRG). LTRGs represent an attempt by FEMA to engage local service providers after disaster and to implement what later became the whole community approach to disaster response and recovery. In St. Bernard Parish, local family and community members were unaware of the LTRG, despite deep roots in the parish and ties to local parish government. Local parish residents were not included on the LTRG, and the stakeholder groups included parish and school board officials, the port, commercial fisheries, oil companies, chambers of commerce, and Kiwanis clubs (Browne, 2015, p. 103). Browne (2015) reported that a full-time salaried FEMA employee informed her that long-term recovery groups are not necessarily local. They tend to be nonprofits, FBOs, and similar groups that may provide services and have a physical location in St. Bernard Parish, but their employees and officers live in other places (pp. 102–103).

## Hurricane Sandy

Hurricane Sandy was the second costliest hurricane in U.S. history (National Oceanic and Atmospheric Association/Atlantic Oceanographic and Meteorological Laboratory, Hurricane Research Division, 2017; K. M. O'Neill & Van Abs, 2016). The effects of Sandy were compounded by the merger of the tropical characteristics of the storm with those of a winter storm (Blake, Kimberlain, Berg, Cangialosi, & Beven, 2013; "Hurricane Sandy," n.d.). Winter storms in the Northeast typically cause the most damage to beaches and barrier islands, and strong offshore winds can cause water to back up in bays, rivers, and estuaries (T. M. Hall & Sobel, 2013; McCallum et al., 2013). Hurricane Sandy combined elements of a winter nor'easter and hurricane to particularly devastating effect.

The New Jersey coastline is one of the most heavily developed coastlines in the nation and stretches 137 miles from Cape May and the Delaware Bay to Hudson and Bergen counties and their Hudson River shorelines. The Delaware Bay shore adds an additional 107 miles of open-water coastline. Bounded on three sides by water, New Jersey provides major estuarine and marshland capacities for New York Harbor and the Delaware Bay. Because of the size and density of the built environment of New Jersey, the scale and scope of the impact of Sandy was unprecedented, even though the coastal communities were neither flattened as Miami area communities were after Hurricane Andrew nor flooded to the extent of New Orleans after Katrina.

Sandy's 13-foot storm surge opened inlets along barrier beaches from Mantoloking to Long Branch. The Atlantic Ocean met Barnegat Bay in the middle of Mantoloking, a wealthy community full of summer homes. Seasonal homes, many of

which had been in the same family for generations in Brick and Lavallette, were heavily damaged or destroyed, while Ortley Beach, a traditionally middle-class community that is part of suburban Toms River Township, saw a significant number of homes destroyed and people displaced. Especially hard-hit in Ortley Beach were senior citizens and retirees who lost their homes and, in many cases, their mementos and lives (FEMA, 2013; New Jersey Department of Environmental Protection, 2015; Star-Ledger Staff, 2013). Sea Bright, a Monmouth County community on the northernmost New Jersey barrier beach, experienced a displacement of its entire population before, during, and after the storm. In addition to storm surge and riverine flooding, up to 6 feet of sand from the beaches and ocean was deposited throughout Sea Bright. "I felt like I was back in Iraq," reported one New Jersey National Guard NCO after returning to Oceanport from a mission to evacuate special needs patients in Sea Bright (personal communication, October 30, 2012).

The naturally occurring affordable housing of New Jersey's northern bay shore communities lining the south shore of Raritan and Sandy Hook bays was decimated after the storm. Coastal urban communities such as Atlantic City, Long Branch, and Asbury Park were impacted economically, physically, and socially. Small businesses and commerce were impacted in these towns, and many residents dependent upon minimum-wage jobs in the service economy of the area were out of work for weeks and, in some cases, months (FEMA, 2013; Slachetka, 2014; Star-Ledger Staff, n.d.). Anecdotal information and discussions at general meetings of the Monmouth Coalition of Organizations Active in Disaster (MNCOAD) in 2016 and 2017 indicated that the Spanish- and Creole-speaking populations in the area were drastically underserved in

both the disaster response and broader long-term recovery activities by the response and recovery agencies active in the region.

Storms have psychological impacts as well as impacts to the physical environment and the economy of the region (Bonanno, Galea, Bucciarelli, & Vlahov, 2007). Marginal, declining, or transitioning industries may face accelerating social and economic change, and long-term recovery after disasters is notorious for introducing or increasing gentrification to impacted communities. Sandy's landfall and the recovery processes enacted by stakeholders increased social and economic changes already underway throughout coastal New Jersey and swept more neighborhoods and communities into the change processes already underway.

**Region of Impact**

Sandy made landfall at 8 p.m. on October 29 in Brigantine, New Jersey, just north of Atlantic City (Star-Ledger Continuous News Desk, 2012). The most extensive storm impacts, however, were much further north in the New York Harbor complex and within the broader Hudson River estuary, which includes Raritan Bay, Sandy Hook Bay, and the Navesink and Shrewsbury Rivers. Before the tide gauge at Sandy Hook stopped working, an 8.57-foot tide was measured. Some unofficial estimates from county and local Office of Emergency Management (OEM) officials put the storm surge as much as 13 feet above mean high tide level at Sandy Hook. Tide gauges at multiple points along the Navesink and Hudson rivers broke during the height of the storm. High tides and flooding were exacerbated by the full moon under which Sandy struck. As the tidal surge crested across Sandy Hook and the south shore of Staten Island, inundating the working-class communities lining Raritan Bay, barrier beaches were breaching from Sea Bright to

Island Beach with inlets opening in Long Branch, Spring Lake, and Mantoloking (T. M. Hall & Sobel, 2013; McCallum et al., 2013).

In understanding the parameters of a natural disaster, it is important to mark the geographic and ecological boundaries of impact to recognize the scale and scope of a disaster and the recovery needs of the impacted region. The New Jersey coastal region is a “hazardous environment” (Harris, 2012; Mauriello, 2012), and visitors and residents alike often ignore the marine and estuarine conditions of the New Jersey shore. Sandy impacted a wide range of New Jersey, exacerbating preexisting social conditions, hastening industry and residential transformations that were already underway, and complicating an already complicated governance structure in New Jersey.

**Boundaries of the Study**

The study is bounded geographically, and contains communities and counties stretching from the south shore of Staten Island to Cape May, and ranges from Raritan Bay to Cape May. Included within these boundaries are Monmouth, Ocean, Atlantic, Cape May, and parts of Middlesex and Cumberland counties. These six New Jersey counties include 135 total separate municipalities, not including school and fire districts, which have their own taxing authority and administrative apparatus in New Jersey.

Ecological boundaries are important to understand because they are factors in shaping the social environments in which communities and organizational networks are able to operate. All human settlements exist within specific watersheds that serve as both a source of water supply and a pattern of drainage that moves water away from communities and toward rivers and oceans. Understanding the parameters of specific watersheds has become an important part of environmental protections for rivers, oceans,

and bays such as Barnegat Bay, the Delaware River and Bay, and even much larger entities such as the Chesapeake Bay, which drains a large portion of the mid-Atlantic states in the United States. Urbanization often obscures or covers up the contours and boundaries of specific watersheds, but in a destructive natural event such as Hurricane Sandy, the marshes, creeks, back bays, and rivers of these watersheds can back up as water from wind, tides, and the storm surges.

During Hurricane Sandy, storm surges pushed into Raritan Bay, New York Harbor, and the Hudson River estuary, inundating urban communities and working-class neighborhoods throughout the region and overwhelming the compromised natural tidal marsh and barrier beach system of the region. Further south, full-moon influenced tides, storm surges, and northeasterly winds wreaked havoc and breached barrier beaches in Mantoloking and washed across Holgate on the southern tip of Long Beach Island, resulting in extensive damage to bayside towns in Stafford, Eagleswood, and Little Egg Harbor townships in Ocean County.

Large, sprawling townships that straddled both the barrier beaches and the bayside such as Berkeley, Brick, and Toms River townships received a double whammy as beach towns and bayside towns simultaneously went under water and wind and waves knocked homes off foundations and into residential streets. These three large townships were particularly hard hit as they contended with response, repair, and recovery for year-round residents. Among the year-round residents were senior citizens who had retired to low-lying barrier islands as well as secondary homeowners who owned vacation residences or rental properties, and small businesses whose owners contribute to the tax base of these communities.

These barrier beaches and bays provide vast ecological services but are also a major part of the built environment of the Boston/Washington, D.C., megalopolis that stretches along both sides of the I-95 corridor. Homes and businesses in coastal New Jersey sit on some of the most expensive land in the Unites States, and Hurricane Sandy was the second most expensive hurricane in U.S. history, costing almost $70 billion dollars in damages. New Jersey alone had $30 billion dollars in damages, and one New Jersey coastal county alone accounted for 25% of all national flood insurance policy claims (Andrews, 2016; FEMA, 2013, 2015).

The complexity of the interaction between the built environment and the coastal ecology of the region complicates issues of long-term recovery and social resilience, and makes clear the relevant boundaries of analysis for this study. The urban environments such as Hoboken, Lower Manhattan, Brooklyn, the Rockaways, and the entirety of Staten Island make for compelling recovery stories and complex analysis. That said, the mix of urban communities, working-class coastal communities and neighborhoods, commuter towns and neighborhoods, retiree clusters, enclaves of wealth, tourist destinations, and the clusters of working poor and poverty stretching from the south shore of Staten Island to the tip of Cape May County in New Jersey, provides a much richer social and ecological landscape from which to analyze long-term recovery and social resilience in the face of complex environmental change.

# CHAPTER 5

# PROPOSITIONS AND RESEARCH QUESTIONS

Expanding stakeholder theory to understand disaster recovery and response provides a framework from which to understand the communication and organizing processes necessary for communities to bounce back from disaster and restore some sense of normalcy. Defining specifically what long-term recovery in communities impacted by natural disaster is has been a challenge for academics, policy experts, and disaster responders alike. Standard protocol divides emergency response and recovery into three distinct phases (DHS, 2008, 2011; GAO, 2016), while recent scholarship has defined post-disaster transitional phases and spaces (Chewning & Doerfel, 2013; Doerfel, Chewning, & Lai, 2013), personal, professional, and emergency phases of business recovery (Doerfel et al., 2010), and crisis and adaptive phases of leadership (Heifetz, Grashow, & Linsky, 2009). Each of these phases fit into the typology of institutional response in which four distinct organizational phases come into play (Bosworth & Kreps, 1986; Kreps & Bosworth, 1993).

A Type 1 response involves first responders and emergency response activities, including providers of social and physical infrastructure such as hospitals and utilities. Traditional disaster relief agencies such as the American Red Cross and Salvation Army expand their roles and their scope of activities in Type 2 responses, while community and social organizations engage in new and different roles in a Type 3 response. Emergent roles and activities are characterized as a Type 4 response. A Type 4 response most likely matches to the unique aspects of a particular natural disaster, community, or region. Organizational responses across all four institutional types and across different temporal

phases are necessary for emergency response and long-term recovery. Organizations active in long-term recovery may be part of an existing civic network, part of prior emergency response planning, or new organizations that emerge after disaster to address community needs. This coverage still leaves the question, however, of what precisely is long-term recovery and what networked stakeholder relationships are necessary for a community to rebuild, recover, and restore a sense of normalcy after disaster?

Activities of long-term recovery in the years after disaster are markedly different than the activities of emergency response in the days and weeks after disaster (Browne, 2015; DHS, 2011; GAO, 2016). Whereas emergency response usually involves activities related to safety, security, and immediate shelter from the storm, long-term recovery activities often revolve around rebuilding and restoration of a resident's home or a community infrastructure, temporary housing assistance while rebuilding and restoration is underway, income support and food assistance, and advice, support, and assistance in navigating labyrinthine private insurance rules, state and federal grant and loan programs, and municipal regulations and guidance concerning rebuilding. These support services represent distinct communication and organizing activities and problems of coordination, resource allocation, and task differentiation among organizations involved in emergency response and long-term recovery.

Several propositions are made in conducting this study.

**Proposition 1:** Long-term recovery is a specific communication and organizing process following natural disaster that is separate from emergency response and short-term recovery.

These distinct phases of recovery require unique stakeholders willing to engage with one another to solve problems of mutual concern. Problems of mutual concern may be the overall challenges of long-term recovery from disaster as well as distinct problems associated with discrete parts of the recovery process.

**Proposition 2:** Stakeholders are networked organizations with joint interests, are embedded within an organizational field, social sector, or community, and collaborate to solve social or environmental problems of mutual concern.

Networked stakeholder relationships use collaborative communication to solve problems of mutual concern, divide tasks among different organizations, exchange information, and allocate resources.

**Proposition 3:** Networked stakeholders use collaborative communication to enact joint problem solving, coordinate activities, differentiate tasks, exchange information, and allocate resources.

Collaborating over joint concerns and solving problems of mutual interest over a long period of time requires persistent, stable relationships among organization. These relationships need to be adaptive to changes in the social and economic environment of the community, resource allocation, and policy changes as long-term recovery unfolds over many years.

**Proposition 4:** Long-term recovery is based upon networked stakeholder relationships that are formed over time through collaborative communication practices.

Long-term recovery is a communication and organizing process shaped through the activities of networked stakeholders active in a disaster-impacted community. Collaborative communication enables access to resources and social or organizational

capital and relies upon trust between the interacting organizations. Specific communication practices such as meetings, regular face-to-face encounters, and information exchange via e-mail, phone, or text are employed to collaborate.

While emergency response is well documented in the communication and policy literature, long-term recovery tends to be overlooked. When considered, long-term recovery is often lumped together with mitigation and planning activities, the emphasis of which is on activities and coordination related to the impacted communities physical infrastructure (DHS, 2011; Haas et al., 1977). Long-term recovery may also simply be viewed as a continuation of the short-term recovery efforts that emerge out of emergency response (Harris & Doerfel, 2016).

What is often overlooked is the cultural and historical context of the community and the social and organizing processes that enable impacted residents and communities to bounce back (Buzzanell, 2010; Doerfel & Harris, 2017) and rebuild their lives as well as their homes (Browne, 2015; Chamlee-Wright, 2010; Chamlee-Wright & Storr, 2009; Kroll-Smith et al., 2015). Ultimately, long-term recovery is a separate communication and organizing process that requires its own set of networked stakeholder relationships separate from the stakeholder responses of emergency response and short-term recovery.

This study addresses the following nine research questions.

**RQ1:** What are the key functions of long-term recovery processes after natural disaster?

**RQ2:** What communication and organizing processes underlie long-term recovery from disaster?

**RQ3:** How are networked stakeholder relationships generated from the formal and informal communication activities and organizing processes within communities solving a joint problem of long-term recovery after natural disaster?

**RQ4:** What are the most effective communication practices for connecting local, neighborhood, and grassroots organizations with public agencies and larger nonprofits in communities impacted by natural disaster?

**RQ5:** How do networked stakeholder relationships enact long-term recovery after disaster?

# CHAPTER 6

# METHODOLOGY

## Reflexive Fieldwork

Reflexive fieldwork is a quasi-ethnographic methodology in which the field researcher is immersed within the social and historical context of the phenomenon being studied. Although reflexive fieldwork is primarily qualitative in nature, it can support robust data collection techniques to power both mixed method (Creswell, 2014) and social network (Hollstein, 2011) analyses. Reflexive methodology is a "methodology-as-technique" (Hammersley, 2010, p. 20) in which specific types of knowledge, techniques, skills, procedures and approaches are needed to uncover social patterns and structures. Hammersley (2010, p. 20) made clear distinctions between research procedures that are rule-based and proceed step by step ("methodology-as-technique") and those that are autobiographical and self-reflexive in nature ("methodology-as-craft"). Reflexive fieldwork combines both technique and craft into a process of empirical research in which the researcher's individual position in the field and among study participants is fully accounted for. Reflexive fieldwork is driven by the researcher's immersion (Doerfel & Gibbs, 2014) within the community or organization under study.

Often, a researcher will be part of the community or organization which he or she is studying. This presence poses problems of entrance and exit because the researcher never really leaves the community or organization and is immersed within the social and historical context of the research site throughout the study. Conversely, entrance into the research site is often accomplished through the researcher's existing relationships with community or organizational members in the field site, which eases access and

contributes to relationship building. These relationships could call into question the researcher's objectivity and impact replicability because access to some sources and informants may be predicated upon these existing relationships. However, by developing certain techniques of field research based on sound, vetted research methodologies and methods, the researcher can independently identify and verify existing and emergent patterns of social and organizational interaction while remaining true to the lived experiences of the community. Self-awareness of the researcher's position, perspective, and interpretations are critical parts of reflexive fieldwork and require constant review of data, questions, and research design to ensure that the study findings yield insights beyond the common, shared perspectives of the researcher and research site. Socially constructed grounded theory approaches (Charmaz, 2014, 2016; Corbin & Strauss, 1998; Craig & Tracey, 1995; Glaser & Strauss, 2009) are used as the "technique" to move from existing community experiences and relationships to empirical evidence in reflexive fieldwork.

Reflexive fieldwork draws from participatory action research (Laska & Peterson, 2011; Voinov & Gaddis, 2008) and active participant-observer research (J. C. Johnson, Avenarius, & Weatherford, 2006) and provides an opportunity to contribute to public scholarship (Peters, Jordan, Alter, & Bridger, 2003). Reflexive fieldwork helps to build an in-depth understanding of community or organizational problems through the use of participants perspectives to help shape the research questions and interpretation of both quantitative and qualitative results. Reflexive fieldwork ensures that participants' lived experiences are counted, regardless of the methods used to analyze the community problem or social phenomenon of concern to the researcher. In reflexive fieldwork, the

researcher often encounters the same problems and relationships as are informants and participants. The researcher's presence in the moment of encounter allows him or her to better shape the subsequent research questions and connect with potential participants and informants. Understanding the everyday actions, experiences, and perspectives of organizational and community participants ensures that the research questions bear fidelity to the actual organizational and community problems under examination rather than reflecting the a priori assumptions of a researcher or particular academic community. Reflexive fieldwork also accounts for the social and temporal patterns of a given community.

As a member of the community under study, researcher activities often mimic the patterns, activities, and flows of the community. There may be gaps between research waves that correspond to events in the life of the community and in the researcher's personal life, as well as periods of intense engagement. Instead of entering a research site and capturing a moment or moments in time, reflexive fieldwork captures the richness, temporal, and processual aspects of community and organizational life resulting in thick descriptions (Geertz, 1973) of multiyear communication and organizing processes.

Reflexive fieldwork is particularly valuable for network researchers working in disaster research because it allows for clearer understanding of the social and organizational networks the researcher seeks to reconstruct. By being immersed in the field, the researcher is able to actively triangulate and validate network data (Wald, 2014) as they emerge through the field research. This strategy provides for multiple levels of validation throughout the research and an iterative approach to network reconstruction. Reflexive fieldwork provides a way for the researcher to set network boundaries in

multiple methods of social research because of the researcher's familiarity with the community, organization, or stakeholder relationships being analyzed. More accurate geographic and organizational boundaries of a disrupted community or region can be set around the network based on the researcher's familiarity with the social and historical environment.

Reflexive fieldwork eschews sharp epistemological and ontological divisions over interpretative, social constructivist, and positivist or post-positivist ways of knowing. Rather, it seeks a middle way through social constructionist and post-positivist assumptions about the nature of social worlds and the appropriate analytical techniques needed to analyze different social worlds. Reflexive fieldwork relies on clearly defined qualitative criteria (Tracy, 2010) for engagement with the community and the research process. Clearly defined qualitative criteria enables the researcher's audience to more quickly establish the face validity of the study and provide rationale for policy makers and elected officials to utilize qualitative research in policy and decision making (Tracy, 2010, pp. 838–839). Qualitative inquiry should investigate an important topic for theoretical or practical reasons, employ "rich rigor" (Tracy, 2010, p. 838), be ethical and sincere, credible, employ a coherent methodology and theoretical framework, resonate with an academic or public audience, and make a major contribution to academic or professional knowledge.

This study meets Tracy's (2010) criteria in the following ways: (a) it explores the under-studied phenomenon of long-term recovery from disaster using stakeholder and networked organizational theory to establish a framework of collaborative communication and networked stakeholder relationships as key mechanisms of long-term

recovery; (b) frames the techniques and procedures of the study methods within a framework of reflexive fieldwork that uses participant observation, observations, encounters, semi-structured interviews, and network analysis to generate empirical data; (c) is approved by the Rutgers Institutional Review Board; (d) accounts for the multilayered impact of disaster by being sensitive to participating community and organizational leaders who may have been personally impacted by disaster; and (d) contributes both academic and practical knowledge to our understanding of long-term recovery from disaster.

## Reflexive Methodology

Reflexive methodology (Alvesson & Sköldberg, 2009) aligns with Tracy's (2010, p. 838) emphasis on "big tent" criteria for evaluating the effectiveness of qualitative research. The goal of these two approaches is to provide a strong set of evaluative criteria for understanding "good" qualitative research rather than specific procedural approaches to qualitative inquiry. Reflexive methodology seeks to position itself as a third way between qualitative and quantitative inquiry through a process of self-reflection and review at each step of the research process. Combined with Tracy's big tent criteria, reflexive methodology provides the scaffolding for constructing a process of reflexive fieldwork in which the researcher is immersed within the research site under study as a resident or member living or working within the community or organization.

Reflexive methodology relies on multiple levels of interpretation and provides a framework for the integration of different theories and literatures in an analysis of empirical evidence collected from a research site, archive, library, digital sources, cultural artifacts, or text objects. Reflexive methodology does not emphasize a plurality

of viewpoints, perspectives, and findings for their own sake (Alvesson & Sköldberg, 2009, p. 305). Rather, reflexive methodology is evaluative and requires the researcher to consider the fit of the empirical evidence with the interpretation(s) being advanced. Reflexive methodology holds that some evidence and interpretations may be more valuable or accurate than others because they may be more likely to advance researchers' and participants' understanding of the problem or phenomenon being analyzed (Alvesson & Sköldberg, 2009, p. 305). Table 1 compares the idea of reflexive fieldwork to Tracy's big tent criteria and Alvesson and Sköldberg's reflexive methodology.

Understanding and reporting multiple levels of interpretation lends itself to the techniques of pragmatic qualitative research (Bergman, 2008; Charmaz, 2016; Craig, 2007; Mihas, 2016) in which multiple levels of coding and analytical memo writing are used to arrive at broader categories of social or organizational phenomenona, and ultimately a theoretical understanding of the social or organizational problem at hand (Charmaz, 2014; Glaser & Strauss, 2009; Timmermans & Tavory, 2012). At first glance, Alvesson and Sköldberg's (2009) concept of reflexive methodology would seem to occupy a different position than Hammersley (2010; 2012), but like Hammersley, Alvesson and Sköldberg sought to find a middle way through the conflicting perspectives that abound in social science research, rather than advocating for a particular technique or interpretative approach.

At the simplest level, Alvesson and Sköldberg (2009) called for a rigorous process whereby there is constant attention paid to data, analysis, and interpretative processes, as well as to the specific social and historical contexts in which the research was conducted. By adopting an iterative, reflexive approach toward method, theory,

analysis, and interpretation, Alvesson and Sköldberg (2009) argued rich research can emerge that addresses key problems of social and organizational life. This point is where Alvesson and Sköldberg departed from Hammersley's (2010) critique of social science methodology. For Alvesson and Sköldberg, the careful attention to the social context in which research is conducted leads to groundbreaking insights. It is not enough to simply focus on the empirical data and rigorous, methodical, and well-documented analyses and interpretations, Alvesson and Sköldberg argued; it is the engagement with the sites of interest and the social context in which the research takes place that generates valid analyses and interpretations.

One of the challenges of reflexive methodology is that it may be perceived as denying that any real objectivity or reality can be observed and analyzed (J.C. Johnson, personal communication, June 15, 2017). However, by emphasizing the integration of data, analysis, and interpretation, reflexive methodology provides a framework in which inductive and abductive reasoning are utilized at multiple levels of review and interpretation and in which the social and historical context of both the researcher and research site are considered crucial parts of the analysis.

Reflexive methodology shares strong similarities with historical analysis. The goal of historical analysis is to elucidate time and space and the structures and processes in which "*The Landscape of History*" unfolds through multiple methods, multiple lenses, and multiple sources that include narrative and metaphor (Gaddis, 2002). Historical analysis has a long tradition of use in organization studies and is an important method for understanding the role and structure of organizations and interorganizational connections within historical and social contexts (Rowlinson, Hassard, & Decker, 2014; Wadhwani &

Bucheli, 2014; Yates, 2014). As such, it has utility for not only understanding "organizations in time" (Bucheli & Wadhwani, 2014, p. 16), but also for disaster research.

## Field Research in Organizational Communication

Field research in organizational communication has a rich history dating back to the field experiments of Hawthorne and Mayo (Doerfel & Gibbs, 2014; Tracy & Geist-Martin, 2014). Similar to classic sociological approaches (Matthews, 1977; Morris, 2015), field research has been the place where important understandings of networked social and organizational phenomena emerge (Benson, 1975; Du Bois & Eaton, 1899; Galaskiewicz, 2016; Provan & Milward, 1995; Starbuck, 2015). Field research ranges along a continuum of "fieldness." Similar to reflexive methodology, field research integrates both social scientific and humanistic approaches to social inquiry while seeking a middle way through qualitative and quantitative inquiry and the sharp epistemological divides between positivists and social constructivists (Doerfel & Gibbs 2014, pp. 224–225). Fieldness describes a range of research techniques and different levels of immersion in field sites (Doerfel & Gibbs, 2014).

At the high end of field research in communication are immersive studies that range from more formal ethnographies to longitudinal and multilevel studies. What these approaches and techniques have in common are their dependence upon organizational, social, and historical contexts, and the entanglement of communication and organizing processes within the organization, network, or interorganizational relationships under study. It is the researcher's job to make sense of these entanglements and to detail the symbiotic relationships between communication and organizing. This immersive

methodology allows for an empirical exploration of Goffman's (1983) interaction order in which larger processes of organizing and social life arise from face-to-face encounters and from the social attributes associated with markers such as race, gender, class, schooling, associations, and affiliations. Both face-to-face encounters and social attributes tend to influence the interactional encounters that occur in daily and organizational life. Processes of organizing, communication, and social attribution ultimately impact the governing conventions guiding the patterns of interaction within social and organizational processes and are thickly entangled with one another. Untangling this web requires using a multiplicity of methods in the field to understand the interpersonal and interorganizational relationships that shape social and organizational interaction within the research site (Alvesson & Ashcraft, 2009; Koschmann, Isbell, & Sanders, 2015; Lewis, 2005; Lewis, Isbell, & Koschmann, 2010; Milward & Provan, 2000).

Field research in organizational communication can also take place across multiple sites and represent a "middle-ground" approach in which researchers may enter the field, but only for a limited period of time in which to collect specific types of data or to conduct pilot tests and gather information prior to the launch of a study. The lowest range of the fieldness continuum represents purely observational data such as those derived from surveys that measure communication flows, message exchange, and communication practices. Studies on the low range of fieldness tend to combine observable, measurable approaches with summary descriptions of the organization or organizational context in which the research is taking place (Doerfel & Gibbs, 2014), rather than detailed, thick descriptions of the research site.

Between 2001 and 2011, 57% of articles published in communication journals were based on field research, ranging from a high of 77.8% of articles in the *Journal of Applied Communication Research* to a low of 37.5% in the *Journal of Communication* (Doerfel & Gibbs, 2014). There are a wide range of topics and contexts studied using qualitative techniques in organizational communication field research: participant voices (40 studies published between 1996 and 2011), health care and social assistance (40 studies published between 1996 and 2011), community nonprofits (22 studies between 1996 and 2011), and public service (13 studies published between 1996 and 2011; Tracy & Geist-Martin, 2014). With few exceptions (Carlson et al., 2016; Doerfel et al., 2013; Doerfel et al., 2010; Doerfel & Taylor, 2004; Harris & Doerfel, 2016, 2017; Koschmann, 2013; Koschmann et al., 2015; Lewis et al., 2010), there are few field studies of interorganizational relationships within the organizational communication literature.

## Qualitative Network Analysis

Qualitative network analysis (Hollstein, 2011) provides opportunities to explore the role of networks in communities while also affording insight into the functioning of networks and the mechanisms by which communication practices in interorganizational relationships are created over time and in response to specific social circumstances and community problems or crises. Qualitative network analysis is a mixed method (Hollstein, 2014) that makes possible analysis of the embedded social and organizational relationships in which communication and organizing processes operate. It is a relational approach (Mische, 2009, 2011) to understanding social and organizational worlds and makes possible analysis at multiple levels of social and organizational phenomena using multiple theories and methods (Monge & Contractor, 2003).

Qualitative network analysis embraces a number of different research designs and techniques (Hollstein, 2011), including observations, interviews, and documents and archival data (pp. 410–412). Uzzi's (1997) classic study of entrepreneurs' ties in the New York textile industry used ethnographic approaches to uncover the embedded nature of personal and organizational ties within a specific industry. Similarly, Mische (2009) immersed herself within Brazilian youth politics to detail the overlapping networks of personal, family, religious, education, and associational identities that drove youth politics and reform in Brazil in the 1990s. Small (2009b) analyzed the organizational embeddedness of child care centers in an urban community to understand the role of organizational social capital and organizational capacities in connecting mothers with social and economic resources. Small combined qualitative research and quantitative data to understand social and organizational ties and their impact on personal, organizational, and interorganizational relationships.

Within organizational communication, Taylor and Doerfel (2003) and Doerfel and Taylor (2004) used interviews, observations, and surveys to understand the network dynamics of the Croatian civil society network during elections following the breakup of Yugoslavia and the subsequent civil war. Scholars also used mixed methods fieldwork to uncover the communication relationships constituting small business recovery in post-Katrina New Orleans (Chewning et al., 2013; Doerfel et al., 2013; Doerfel et al., 2010). Lai et al. (2017) used a combination of face-to-face and online surveys to examine the symbiotic evolution of neighborhoods and disaster response agencies after a technical disaster in a community in Taiwan. However, a substantial amount of network analysis in organizational communication operates at the low end of the fieldness continuum using

observational data such as surveys, social media feeds, and archival data to operationalize civil society networks (Atouba, 2010; Atouba & Shumate, 2015; Cooper & Shumate, 2012; Lai, She, & Ye, 2015), rather than immersive field studies in which organizations, organizational characteristics, and relational ties are extracted from the field data themselves.

Research in disaster-impacted communities is different than traditional field research in organizational communication. Social and organizational relationships are disrupted, individuals and organizations are time constrained, and circumstances quickly change. Much of the data in disaster-impacted communities are perishable, that is, they must be collected quickly as events happen or new relationships are formed. In this study, by the time systematic collection of organizational records from long-term recovery groups was begun in 2016, many organizations had already ceased operation and the records were difficult to locate or missing. Although some financial records were available through fiscal agents, many organizational records were missing, even from well-organized individuals and organizations. This problem was also encountered when data collection of grassroots organizations began in 2016 in Atlantic and Cape May counties. The perishable nature of data in disaster research makes the use of reflexive fieldwork as a mode of qualitative inquiry an important research tool. Organizational records and documents were collected through participation in different organizational meetings and by the researcher's dual role as both a community leader and a researcher. All organizations with which the researcher came into contact were aware of this dual role, and verbal or written consent was obtained from other organizational leaders before documents and data were obtained and/or used in analysis.

# CHAPTER 7

# METHODS

This multiyear study of recovery from Hurricane Sandy in coastal New Jersey involved multimethods field research and qualitative network analysis to understand processes of long-term recovery and the networked stakeholders active in recovery in the coastal New Jersey region. This research builds on researcher activities as a community leader in response and recovery for 1 year prior to beginning a formal research project at Rutgers. The project also builds on research of small business recovery in coastal New Jersey as part of a study in winter and spring 2013, as well as a summer 2014 analysis of post-Sandy information ecosystems in New York City commissioned by *Internews* and led by Napoli (2014). Permission was granted by principal investigators and organizational leaders to use information from this time period. Organizational leaders and members of these organizations in the fieldwork region were informed of my dual roles as a community leader and Rutgers researcher on multiple occasions.

Relational ties among organizations active in long-term recovery were extracted from both field research and organizational records, notes, and archives. Stakeholder definitions were drawn directly from participant interviews. Research is based upon three foundations: immersion as a participant observer from October 29, 2012, to the present, team research on small business recovery in coastal New Jersey in winter and early spring 2012–2013, and interviews and network surveys of nonprofit and municipal leaders in coastal New Jersey in 2016 and 2017.

## Research Sites and Participants

Ethnographic observation, participant observation, semi-structured interviews, a network survey, and archival data were used to identify and collect data about the interorganizational networks involved in response and recovery to Hurricane Sandy in coastal New Jersey. Data collection took place from October 2012 to September 2017. Participant observer data were collected in coastal New Jersey from October 30, 2012, to December 31, 2017, during the emergency response and long-term recovery phases of the disaster. The author lives in a coastal New Jersey community heavily impacted by Hurricane Sandy and has been active in Hurricane Sandy response and recovery activities as a volunteer leader at the community and regional level. See Appendix A for a list of these activities and see Appendix B for a list of sources utilized in the study.

A network analysis of emergent organizing activities was conducted in this community (Harris & Doerfel, 2016). Participant observation consisted of active participation in emergent response and long-term-recovery in Oceanport, New Jersey, with the Monmouth County Long-Term Recovery Committee (MCLTRG), and with the MNCOAD, where the author serves as secretary and is a member of the executive committee. The author also attended community emergency response team (CERT) trainings in 2013 in New Jersey and a New York State citizen disaster preparedness workshop in 2014.

The majority of the research took place in coastal New Jersey in Monmouth and Ocean counties, although the study was bounded by Raritan Bay in Monmouth County and the Delaware Bay in Cape May County. Parts of Monmouth County sit within the New York Harbor complex and several of its riverine estuaries. Impacted communities in

Ocean County mostly adjoined Barnegat Bay and its associated estuaries. Impacted communities were subject to wave and wind damage, tidal flooding, and back bay flooding during and after the storm. Communities in Great Egg Harbor and Great Bay in Atlantic County, including Atlantic City, Brigantine, and Ventnor, also were hard hit by the storm with similar impacts and effects to those in Ocean County. The most robust interorganizational data exist from these two counties, given the researcher's connections within and proximity to these communities.

## Sampling

Both sequential interviewing and archival research were used to identify organizations and municipalities for interviews. In sequential interviewing (Small, 2009a,b), each organization or municipality interviewed equals one case or incident rather than a variable or participant within a sample of a specific population, organizations, or region. Similar to purposive or snowball sampling (Creswell, 2014; Hollstein, 2011), sequential interviewing uses participant and informant knowledge to guide the development of the data set for analysis and focuses on reaching theoretical saturation rather than the development of a randomized sampling frame (Small, 2007, 2009a). Theoretical saturation is the point in a project at which data collection reaches diminishing returns and ongoing research reveals no or limited new concepts or ideas relevant to the theories emerging from the data (Charmaz, 2014, p. 345). For Small (2009a, b), the achievement of saturation on particular issues raised in the interview process allows new and/or deeper issues that emerge to be explored in subsequent interviews.

In this study of long-term recovery, issues related to the allocation and sequencing of funding, organizational entrance and exit, conflict over case management processes, and specific types of organizational relationships were raised in earlier participant observer activities and interviews. These earlier findings were used to guide the final round of interviews in 2017. Sequential interviewing and theoretical saturation focus on particular issues, ideas, or conceptual frameworks identified in the field, rather than the imposition of a random sampling frame that may not reflect the scope of activities or capture the salience of particular participant behaviors that may be small in scope, but profound in implication (Small, 2009b). In this way, sequential interviewing provides a way to develop the face validity of the study, which is an important criterion for good organizational communication research (L. L. Putnam & Mumby, 2013). Face validity simply asks, "Does the findings and insights from this study comport with what we know about the organization or community from members, the media, and our own experiences and interactions with them?".

Sequential interviewing is a form of case logic (Small, 2009b, p. 227) in which the actual number of interviews needed is unknown until the end of the study. Sequential interviewing is a way for unknown social and organizing processes to emerge from the data throughout the study rather than describing specific characteristics or behaviors using predefined random samples. Also, sequential interviewing is a way of avoiding false inferences from sampling designs that may restrict the boundaries of a study and not be truly representative of the population or community being analyzed. Avoiding this problem is particularly salient for studies of disasters or other disruptive events where local culture, history, and knowledge is important for understanding organizational and

social relationships and the dynamics of recovery, displacement, or migration. Sequential interviewing is a way of directly connecting participants' experiences, perspectives, and knowledge to the emerging theories that are generated from the empirical data. It provides a type of validity that ensures that what is actually occurring in the research site(s) is represented in the study itself. Finally, sequential interviewing connects with core approaches used in qualitative network analysis, such as purposive and snowball sampling, which are used to generate names and relationships from participants in the study (Hollstein, 2011, 2014).

Rather than simply choosing the next organization to interview based on mentions by previous interviewees or a predefined sampling frame, in sequential interviewing, subsequent interview participants are chosen based on their ability to provide new perspectives or information, provide a different geographic perspective, or deepen knowledge related to a particular concept or theory. This approach also provides an opportunity to ensure that the organizations and relationships identified are truly meaningful to the community partnerships and to extract information about the types of relationships in which organizations engage with one another. Sequential interviewing represents a middle way between case and sampling logics. Interviews are conducted as sequentially linked incidents addressing the specific social phenomenon under study (Small, 2009a), with each incident equaling one case. Sequential interviewing is a way to achieve theoretical saturation through logical inference (Small, 2009a) and uses each interview to both refine subsequent interview questions and to identify additional organizations and municipalities for further research.

Rather than the use of sampling frames to sample a population that meets specific preset criteria, sequential interviewing is a method that complements socially constructed grounded theory techniques (Charmaz, 2014) because it allows for logic and theory to emerge through the interview process itself and directs the interviewer toward new incidents (in this study, organizations) that enable the researcher to answer certain questions or provide new perspectives. Knowledge is defined and developed throughout the interview process, and each interview should provide new supporting evidence about the processes and phenomena identified in previous interviews. Unlike sampling logic, the case logic employed in sequential interviewing allows for the researcher to build on past questions in subsequent interviews. If new information or data emerge in an interview, sequential interviewing provides a path by which new organizations can be identified that may add to, confirm, or deny the new assertions raised in the previous interview(s). Thus, the new organization interviewed becomes a new case (incident) from which to explore new perspectives, processes, mechanisms, and data uncovered in the previous interview. As such, sequential interviewing provides a strong complement to reflexive fieldwork in which participant and quasi-ethnographic observations were used to obtain data and understand the relationships and rhythms of long-term recovery.

As part of this process, organizational leaders were asked to identify organizations with which they interacted during long-term recovery and to suggest additional organizations to include in this project. Both interviews and information obtained from volunteer meetings and activities were used to guide each subsequent set of interviews to develop a broader picture of organizations operating at different levels within the research site. Organizations were also identified from rosters, meeting minutes and

agendas, as well as participation in meetings and workshops. Documents utilized included a binder of organizational materials from a key fiscal agent involved in the recovery, personal and organizational notebooks from the lead organizer for a networked grassroots organization with regional and national reach, agendas, rosters, and meeting minutes from different organizations interviewed, and communication and marketing collateral collected at different events attended.

## Geographic Bounding of the Study

The study is geographically bounded. Geographic bounding rather than a sampling frame was used to bound the study. Geographic bounding was used for two reasons. As a study of an organizational process associated with a process of complex environmental change, geographic bounding situates the study within the region undergoing complex environmental change itself and provides a way of linking salient communication, organizing, and geographic phenomena with impacted communities, organizations, and residents. This type of bounding is especially important when it comes to suburban, exurban, and rural regions in which organizational density is much lower than what would be found in more densely populated areas impacted by disaster (Browne, 2015; Doerfel et al., 2013; Doerfel et al., 2010).

The tradition of home rule in New Jersey (Karcher, 1998) requires geographic bounding of disaster research and other topics related to complex environmental change. New Jersey has a tradition of strong and fierce local control, with several hundred municipalities, school districts, fire districts, and utility authorities dotting the landscape of one of the smallest states in the United States. Each of these districts and authorities have separate taxing jurisdictions and authorities. Each municipality has different zoning

regulations and building codes, and often their own police, fire, and ambulance services. Municipalities in the impacted area range in size from a few hundred people and homes to almost 100,000 people and more than 500,000 homes in any given community.

The numerous overlapping jurisdictions and discrepancies in size, scale, and scope of Sandy-impacted communities make a traditional New Jersey community unsuited as a basic unit of analysis for a study of networked stakeholder relationships. Instead, defining a coastal region of communities with shared characteristics and culture (broadly defined) provides an opportunity to include a wider range of organizations and municipalities as participants in the networks of recovery enacted in the months and years after Hurricane Sandy. The study area includes New Jersey coastal counties between the Raritan Bay in the north and the Delaware Bay in the southwest, and includes 137 miles of Atlantic Ocean coastline and 107 miles of Delaware Bay coastline.

## Procedures

### Participant and Ethnographic Observations

Participant and ethnographic observation took place at a community microshelter, through the communication and organizing activities involved in helping to incorporate a local community organization active in disaster (COAD), attending volunteer committee meetings of the MCLTRG, helping to launch the MNCOAD and serving on its executive committee, providing tours of impacted communities to an international creative arts nonprofit, conducting site visits to hard hit areas, and attending various picnics, fundraisers, and softball games organized by grassroots organizations active in long-term-recovery.

**Semi-structured Interviews**

Two rounds of interviews were conducted in the coastal New Jersey region, the first between March and June 2013, and the second between January and September 2017. Questions related to media and information use and sources of assistance for short- and long-term recovery in Staten Island, New York. These were interviews and analyses used primarily for the *Internews* study (Napoli, 2014) in information ecosystems after Hurricane Sandy in New York City. However, some key grassroots communication and organizing processes emerged in these interviews that were similar to communication and organizing processes that had emerged in coastal New Jersey. The concepts and themes that emerged on hyperlocal organizing from these interviews helped shape subsequent observations, interviews, and analysis.

A total of 38 interviews were conducted in coastal New Jersey in two rounds of interviews and 1,855.43 minutes of audio were recorded ($M$ = 51.5, $SD$ = 25.8). Community and organizational leaders were interviewed throughout the study. Most interviews were one-on-one interviews, with some interviews including up to five participants. Most multiparticipant interviews typically involved two or three participants in addition to the researcher.

**First-wave interviews.** Questions related to emergency response and short-term recovery after Sandy. These included interviews with businesses and Chamber of Commerce leaders in Asbury Park, New Jersey, and southern Ocean County. A total of 567 minutes of audio was recorded ($n$ = 16, $M$ = 35.4, $SD$ = 18.8). After this first wave of interviews, subsequent interviews took place mostly within the plural and public sectors as a result of participant observations, snowball sampling, and sequential interviewing.

**Second-wave interviews.** These questions related to organizational relationships, communication practices, and processes of long-term recovery within the plural and public sectors. A total of 1,288 minutes of interviews was recorded ($n$ = 22, $M$ = 64.4, $SD$ = 23.3). The first set of second-wave interviews took place in 2016 with two alternative disaster relief organizations. Questions asked related to relationships between municipalities and alternative disaster relief organizations.

### Archival Data

Archival data consisted of agendas, rosters, meeting minutes, organizational files. notebooks, organizational reports, media reports, and website information collected from organizations engaged in long-term recovery in the coastal New Jersey region. These archival data provided information about organizations active in the stakeholder network, as well as information about the timing and operation of various long-term recovery activities in which the different organizations active in long-term recovery from 2013 to 2017 engaged.

## Data Analysis

Abductive analysis was performed throughout data collection and analysis on both the interview and archival data as interorganizational relationships and social interactions became observable through the field research and interviews (Charmaz, 2014, 2016; Timmermans & Tavory, 2012). Abductive analysis and sequential interviewing are complementary techniques; they allow the researcher to focus on theoretical saturation and logical inference during the research process itself. Abductive analysis is a method that supports theorizing and generating new ideas and concepts from observable empirical data. This style of concept generation differs from more traditional

forms of grounded theory through its emphasis on developing insights from empirical phenomena as part of a “context of discovery,” which prioritizes theorizing from the evidence at hand as it emerges in the study.

As Timmermans and Tavory (2012) explained, abductive analysis emphasizes a sort of theoretical agnosticism in which neither adherence to a set of communication or social theories nor a casting aside of all theoretical and epistemological frameworks frame the analysis. Instead, abductive analysis acts as a means of sensitizing the researcher’s interaction with the empirical data and the object of study through the researcher’s positional perspectives gained through socialization processes in the research site, as well as the researcher’s familiarity with a range of theories that may provide theoretical insight gained through educational processes (Timmermans & Tavoy, 2012, pp. 172–173). Unlike theory-free grounded theory, abductive analysis requires a broad range of theory from which to generate new theories from the collected empirical data. Bringing theoretical frameworks to bear does not mean testing certain concepts using a priori assumptions; rather, it means understanding the communication phenomena analyzed from the empirical data through a broad lens of theory and practice.

Abductive analysis prioritizes positionality and the social context and relationship(s) of the researcher and phenomena to generate new insights into the data (Charmaz, 2016; Swedberg, 2012; Timmermans & Tavory, 2012). As such, abductive analysis complements reflexive methodology (Alvesson & Sköldberg, 2009) in which the researcher engages in multiple levels of interpretation (or analysis) throughout the process of research and data analysis. Alvesson and Sköldberg’s (2009) reflexive methodology frames four levels of interpretation ranging from Calvinist models of

grounded theory, obscurest models of hermeneutics and text interpretation, critical challenges to authority and power, and the tightly bound worlds of postmodernism (pp. 263–264). They argued that reflexive interpretation is a way of engaging with all four levels of analysis during the course of a research project and that these levels are reflected back toward one another throughout the process of discovery and research (Alvesson & Sköldberg, 2009, p. 271). Table 2 defines Alvesson and Sköldberg's levels of interpretation.

A clearly defined framework allows the researcher to analyze empirical data collected from field research and archival work. Such a framework provides clarity as to how key concepts are transformed into operational measures and procedures selected to analyze these operational levels. This framework is used to analyze both the research process and the empirical data and provides the framework for the Methods, Findings, and Discussion chapters. Table 3 uses the Alvesson and Sköldberg (2009) framework to highlight the data analysis process of this study.

Interview notes were taken during each audio-recorded interview and field notes developed from observations, jottings, and conversations in the field. Initial impressions were captured in summary paragraphs, along with key in vivo phrases or concepts that emerged during interviews with participants. Tables, figures, and drawings of organizational relationships and possible organizing processes were developed and captured in the field journals throughout the data collection, data analysis, and writing phases. Field journals consisting of five softcover moleskin notebooks were kept.

Summary notes of Staten Island focus groups from the *Internews* study (Napoli, 2014) were conducted and used to inform both subsequent interviews in Staten Island and

theorize about phenomena of hyperlocal organizations that the first author was witnessing. In vivo coding, process coding, and abductive analysis were used to analyze the interview notes, field notes, and analytic memos generated from the fieldwork and to theorize about the emergent behaviors and processes observed during fieldwork.

## Coding

**First-cycle coding.** First-cycle coding of transcripts involved conducting in vivo and process coding (Charmaz, 2014, 2015; Saldaña, 2016) to generate key processes of long-term recovery and identify organizational relationships. When conducting in vivo coding, the researcher simply takes the participants' own language and uses this language as a code or descriptor to identify key actions, ideas, and processes that the participants disclose to the researcher. With in vivo coding, codes are drawn directly from the empirical data themselves and represents the language used by the participants and/or the vernacular of the research site under study (Charmaz, 2014, p. 243). In vivo coding is a key function of grounded theory approaches (Charmaz, 2014; Saldaña, 2016) and provides a specific process and technique through which to generate empirical data from qualitative research (Charmaz, 2015; Corbin & Strauss, 1998; Glaser & Strauss, 2009).

Rather than splitting transcripts through line-by-line coding, I chose to code as a "lumper" (Saldaña, 2014, pp. 23–24), which is appropriate for identifying particular phenomena. In this study, the phenomena were the processes of long-term recovery and the organizational relationships that underlie these processes. In practice, what this approach means is that rather than following a strict coding schema that assigned a descriptive code to every line of data in the transcript, as would be done in a classic grounded theory study (Corbin & Strauss, 1998; Glaser & Strauss, 2009), single or

multiple codes were generated for passages of transcript data that provided information about particular concepts, processes, or activities associated with long-term recovery. Process codes using gerunds were assigned during first-cycle coding along with in vivo coding. Process codes make visible the actions in which people or organizations engage to communicate with one another, accomplish a task, or define and grapple with a problem. Process codes may also help to highlight how actions in which people or organizations engage may emerge over time (Saldaña, 2014, pp. 110–115). Table 6 provides examples of process codes from the transcripts categorized by municipal leaders and nonprofit leaders.

A three-column table in Microsoft Word was created for each typed transcript. The first column contained the actual transcript language itself, arranged in rows. The second column was used for in vivo codes and the third column for process codes. Organizations named by interview participants were highlighted in yellow and extracted for use in network analysis. Organization names were then stored in a Microsoft Excel spreadsheet for future network analysis. Following Charmaz (2014, p. 120), the initial coding using in vivo and process codes was open (as opposed to focused on predefined categories or terms, such as meeting or collaboration), focused on simple phrases using gerunds to describe actions and activities, compared emerging codes within the same interview transcript with one another, and moved quickly through the data.

In vivo codes are identified by the use of quotation marks around the language drawn directly from interview data or archival documents. Process codes are action-oriented and use gerunds (e.g., planning, meeting with, and so on). Names of organizations were highlighted in yellow for later extraction of organizational ties, and

communication practices were lighted in blue for later extraction and analysis. The stakeholder definitions of the 2017 interview participants were extracted from the transcript data and copied into the in vivo coding column and highlighted in red. Participant stakeholder definitions were copied whole, regardless of length of quote or discussion.

A table was created of stakeholder definitions matched to the type of leader and organization interviews. Pseudonyms were developed that matched the developing concepts and positions from the line-by-line coding and analytic memos (e.g., Beach Town, Grassroots Organization, FBO, Mayor, Executive Director). In vivo and process coding were among the techniques used to develop analytic memos to shape a framework of emerging concepts and activities. Theoretical memos on in vivo stakeholder definitions were constructed to account for definitions emerging from the empirical data from the field vis á vis traditional stakeholder theory.

**Second-cycle coding**. Second-cycle coding used analytic memos and diagramming to make sense of emerging codes, categories, and themes (Saldaña, 2016). Emphasis was on the development of a thematic understanding of the events, landscape, organizational activities, organizational sequencing, and organizational relationships emerging from the corpus of interviews, participant observation, organizational reports, organizational manuals, and documents, agendas, attendance sheets, rosters, government data, websites, and media sources that composed this study. Again, following Charmaz (2014), open coding was followed and axial coding was eschewed in favor of analytic memos and broad categories of theoretical import that led to the development of theoretical constructs supported by the empirical evidence generated from the study.

The abductive analysis described above was combined with second-cycle coding as a path from coding to theory building (Charmaz, 2015, 2016; Timmermans & Tavory, 2012). While traditional grounded theory approaches emphasize axial coding within second-cycle coding, axial coding is not a required step in social constructivist grounded theory and, in fact, may impede the path from initial to theoretical coding (Charmaz, 2014; Saldaña, 2016). Although codes and coding schemes make visible the actions, events, ideas, and themes that emerge from the empirical evidence generated from field research, theory construction requires creativity, synthesis and the ability to see patterns and connections within and across sources. Memos, margin notes, sketching ideas about timelines, processes, and relationships were all used to develop themes and to begin to construct theoretical constructs. A focus on abductive analysis (Timmermans & Tavory, 2012) during second-cycle coding aligns with the sequential interview and case logic approach (Small, 2009a) employed during field research. This analysis, in turn, provides a method that is focused on theory-building throughout data collection and analysis.

**Memo Writing**

The development of analytic, reflexive, and theoretical memos informed the development of research and analysis throughout the study. Memo writing during the interview and data analysis phases allows the researcher to crystallize thoughts and develop concepts while remaining close to the data. Memo writing helps in developing a framework for the findings while keeping the researcher engaged with the data throughout the research process. Most memo writing for this project took place during the final 18 months of research and analysis. A field journal was maintained throughout the study, but was not kept consistently throughout the 5-year period of the study.

Memo writing is an important part of focused coding (Charmaz, 2014; Mihas, 2016; Saldaña, 2016). It allows for the development and refinement of conceptual categories to inform and guide interview data and to capture emerging ideas and insights that may not at first fit into the larger research framework (Charmaz, 2014; Mihas, 2016). When used in conjunction with sequential interviewing (Small, 2009a), initial coding, and focused coding, memos can help the researcher to identify gaps in the research and provides a way of knowing when theoretical saturation has been reached.

**Methods.** Methods memos captured issues relating to data analysis and choices made in analysis, such as the decision to code network categories in a certain way, and the choice of network measurements for the stakeholder relationships identified in the data.

**Theoretical.** Theoretical memos captured important emerging themes that may have impact on key findings. Examples include the concept "hidden pockets" to describe the nature of Sandy damage compared to other storms such as Hurricane Katrina (and later confirmed with the initial experiences of hurricanes Harvey, Irma, and Maria as this project was drawing to a close) or "beachside" and "bayside" to capture the decidedly different experiences of beach, bay, and river towns impacted by Sandy. The concept of "hyperlocal organizations" emerged through a series of memos and one-page papers written in a sociology of organizations class in spring 2015; data were analyzed by this researcher from the *Internews* information ecosystems project conducted by Napoli (2014) in summer 2014 to develop a theme of hyperlocal organizing.

**Positionality.** Positionality memos are a way to operationalize reflexivity and understand the researcher's relationship to the data, research site, community, or

population analyzed. Positionality memos are an important part of reflexive research because they place the background and experiences of the researcher and the researcher's race, ethnicity, gender, and class into conversation with the data (Mihas, 2016) and may provide insights into how data analysis was conducted and why certain findings emerged as key concepts rather than other possible findings. At times, positionality memos were dictated into a recorder on a phone or audio recorder after an interview or site visit as a way of quickly capturing thoughts and feelings related to the previous event.

Memo writing and field notes were an important part of beginning to understand the different types of networks present in the aftermath of Hurricane Sandy in New Jersey. These "networks of recovery" were identified as patterns that emerged from the interviews with nonprofit leaders, mayors, and business administrators/town clerks. These interview data supported earlier observations that municipalities and nonprofits were operating in the same region with the same goal, but were engaged in quite different work practices and organizing processes than the nonprofits.

**Organizational Network Analysis**

A total of 178 organizations active in long-term recovery in New Jersey between 2012 and 2016 were identified through interviews, organizational records, websites, and field notes, based on observations of meetings and recovery efforts. Although 247 organizations were reported as in attendance at the first long-term recovery meeting in Monmouth County in December 2012 and over 200 at the initial long-term recovery meeting in November 2012 in Ocean County, only 178 organizations could be identified.

**Network boundaries.** Network boundaries include the coastal New Jersey region consisting of all of Monmouth, Ocean, Atlantic, and Cape May counties and parts of

Middlesex and Cumberland counties. This region ranges from the Raritan Bay in the northeast to the Delaware Bay in the southwest. Organizations involved in long-term recovery were often active in more than one county. Some local foundations were created after the hurricane to serve specific communities such as northern Bayshore or Two Rivers communities in Monmouth County. Local family and business foundations supported long-term recovery groups in Ocean and Atlantic counties. Because these foundations were active only with specific communities or organizations, their importance within the recovery may be underreported in the network analysis. The network is also missing grassroots organizations from the barrier beach towns of Atlantic and Cape May counties. Data on pop-up organizations and their activities are often perishable. By the time the study was able to begin assessing these communities in late 2016 and 2017, many of these organizations and their records were no longer accessible. Organizations active in Monmouth and Ocean counties may be overrepresented.

**Timeline.** This network represents the network of recovery active in coastal New Jersey from 2012 through 2016. As of 2017, only four organizations remained active in long-term recovery within the entire region. Although organizations active in 2016 in the formation of the MNCOAD—an outcome of Monmouth County long-term recovery processes—were included, 2017 data on MNCOAD organizations were excluded because of material differences in organizational activities and purpose. In 2016, there was still overlap between MNCOAD and long-term recovery group activities. By 2017, MNCOAD activities had shifted to disaster planning and preparation activities.

**Network analysis.** A network matrix was created in Microsoft Excel of the 178 active, identified organizations. The network is undirected and consists of the presence or

absence of ties between organizations with a 1 assigned for presence of and a 0 (zero) assigned for absence of ties. Strength of ties was not measured. UCINET (Borgatti & Freeman, 2002) was used to analyze degree centrality and density within the network.

**Degree centrality.** This measure provides a measure of how well connected any one organization in the network is to any other organization. The more direct and indirect ties an organization has within the network, the more prominent the organization is within the network and the more likely an organization is to be able to broker relationships, information, and resources among different organizations (L. C. Freeman, 1979; Hanneman & Riddle, 2005). Centrality also provides an understanding of how well communication, information, or resources may flow within a network (Borgatti, 2005).

**Network density.** Network density provides a measure of all possible direct and indirect ties within the network and a proxy of how well connected a network is (Borgatti, Everett, & Johnson, 2013; Hanneman & Riddle, 2005). Essentially, density provides a way of understanding the likelihood of one organization in the network being familiar with another organization. In a process of long-term recovery, density becomes important for assessing the possibility that any one organization may become aware of the information or resources that another organization may have. In sparse networks, there is a low likelihood that organizations will be aware of one another and be able to access each other's knowledge, status, power, or resources easily. Generally, the larger a network is, the less dense it will be, and the smaller a network is, the higher density it will have.

**Interview notes.** Interview notes were also used to construct a conceptual model of multiple networks of recovery (3). Because data were skewed by sector with a low

number of municipal organizations represented in the public sector dataset collected through interviews and observations, formal network analysis may have been misleading. Findings from these interviews and a preliminary framework are discussed in the Results chapter.

# CHAPTER 8

# RESULTS

## The Current Landscape of Recovery

> New Jersey has been a different recovery for [LongTermRebuildOrg] in that, in the past, and really since then we've partnered with a local grassroots organization that sprouted up after the disaster and focused on one community and how that one community has recovered. New Jersey is just different. You know, there's lots of towns who [*sic*] were affected. And they're spread across hundreds of miles of terrain. And just recovering one community is very different than it is in Joplin, Missouri, or New Orleans, for that matter. So there was need beyond just Sea Bright. So we kind of, I think, tried to mirror the need of the community. So we moved into Monmouth. And then we did some investigation of Ocean and found that Ocean County, the need was as great or greater than Monmouth and income is a little bit lower than Monmouth. It seemed like there was a lot of data that supported our moving to Ocean County as well. (Regional Director, National Disaster Recovery Organization 3)

In December 2017 (5+ years post-Sandy), at an executive committee meeting of the MNCOAD, executive committee members active in long-term recovery reported that approximately 575 residents had not completed rebuilding and home elevation through the New Jersey Residential, Reconstruction, Elevation, and Mitigation (RREM) program. The RREM program was the primary residential assistance program for Sandy-impacted homeowners in New Jersey and is funded through HUD CDBG programs. Reconstruction completion is usually demonstrated through a certificate of occupancy from the municipality. Certificates of occupancy mean that homes meet current municipal building codes and are suitable for habitation.

If these residents did not complete rebuilding in 2018, the State of New Jersey would have to return approximately $500 million from Sandy reconstruction grants to HUD. The committee members stated that they were not certain if the newly elected governor and his staff were aware of this potential hit to the New Jersey budget if post-

Sandy reconstruction and rebuilding funded by the RREM program was not completed. These incomplete rebuilds represent approximately 5.9% of the less than 10,000 New Jersey residents enrolled in the RREM program. While the RREM program is often cited by official government agencies and sources as a key metric of recovery, participants in the program reflect only a small fraction of the homeowners and renters impacted by Hurricane Sandy.

Between 2011 and 2017, Toms River, the largest municipality impacted by Hurricane Sandy, saw its tax base decline from $16.9 billion to $12.8 billion. The adjacent municipality of Brick Township, the second largest municipality impacted, had only a decline of 4% as ratables decreased from $10.6 billion to $10.2 billion over the same period of time. Ratables are the total property values of the residential and business tax base of a community. Estimates from 2017 interviews and meeting participants ($n$ = 22, $n$ = 8, respectively) put residential recovery at 65–85% of those impacted in the coastal New Jersey Region, leaving 25–35% of impacted residents still unrecovered. An October 2017 report by the New Jersey Organizing Project estimated 22% of New Jersey residents were still not recovered from Hurricane Sandy (Devecka-Rinear, Limbacher, Marshall, Ryan Murray, Ochsner, and Zourhour 2017).

The New Jersey Nonprofit Long-Term Recovery Assessment Report published by NJVOAD in October 2016 reported that nonprofits served 29,598 people, distributed more than $116 million in aid, completed 3,060 reconstruction and rebuilding projects, and oversaw 352,335 volunteers between 2012 and 2016. The Community FoodBank of New Jersey increased its distribution from 40 million pounds of food on 2011 to 48 million pounds of food distributed to more than 1,000 community partners in New Jersey.

As late as Christmas 2017, FoodBank demand was still high in Atlantic County, with 10 million pounds of food distributed to 300 partner agencies in the Atlantic County coastal region in 2017 alone. Managers at the South Jersey warehouse reported a 236% increase in food bank assistance between July and December 2017. This increase in food bank activity appears to correspond with the expiration of state and federal assistance programs, a dwindling of funds available through private, public, and plural sources, and only four remaining organizations left participating in long-term recovery from Hurricane Sandy. Increases could also have been impacted by the continuing decline in the Atlantic City casino industry, which has had a severe impact on employment in the region.

Food banks played an important role in networked stakeholder relationships after Hurricane Sandy. Within 10 days of the storm, The Community FoodBank of New Jersey distributed 5.2 million pounds of food and supplies. The FoodBank of Monmouth and Ocean Counties established 150 temporary distribution points in Monmouth and Ocean counties in that same time period. Food banks often have expertise in logistics, warehouse management, and volunteer management that many other organizations active in disaster response and recovery do not have.

## The Elusive Data on Post-Sandy Recovery in New Jersey

> "Unfortunately, the state never centralized the data." (Long-Term Recovery Group Executive)

> "There are no statewide figures measuring how many people were displaced from their homes following Hurricane Sandy's arrival." (Fair Share Housing Center, State of Sandy Recovery, February 2015, p. 20)

Although data and information related to organizational activities, organizations, and organizational partnerships are attainable through interviews, observations,

participation, organizational documents, reports, websites, and media sources, specific data measuring or analyzing the effectiveness of post-Sandy recovery in New Jersey are decentralized, difficult to locate, and, in some cases, elusive. New Jersey is a home rule state with 565 municipalities, 678 school districts, and 176 independent fire districts across the state. With home rule, municipalities have high levels of control over property taxes, permitting, ratables development, public safety, and schools within their borders (Karcher, 1998). Each municipality has different building and rebuilding rules, and different methods for collecting, storing, and distributing information related to storm impacts and post-storm recovery. This information was not collected or centralized at either the county or state level, making comprehensive metrics-driven assessment of long-term recovery effectiveness in New Jersey elusive.[1] Table 5 provides a brief comparative example of post-Sandy data management using data from the New Jersey Temporary Housing Relief Program.

The Rutgers University data librarian serves on the state data council and made multiple requests on the author's behalf to the data council to locate comparative municipal data on storm impact and recovery at the state level. Data on severely impacted homes by municipality (required for FEMA public assistance and reimbursement) were obtained from the New Jersey Association of Flood Plain Managers—a scanned single worksheet Excel document, and 5 years of construction permitting—was obtained from the township administrators of the largest Sandy-impacted municipality in coastal New Jersey. Tax roll data were obtained from the New Jersey State Department of Treasury for the impacted region. Throughout summer 2017, the author wrote a community research grant for the Ocean County Long-Term Recovery Group (OCLTRG) to hire

researchers to collect municipal-level data for assessment purposes. OCLTRG was awarded $6,000 by the New Jersey Natural Gas Foundation. OCLTRG was a participant in this study, as well as a partner in a final attempt to collect municipal-level data. The undergraduate researchers were employed by the OCLTRG.

The undergraduate researchers ran into similar problems as the Rutgers data librarian and I, finding incomplete data, lack of centralized information at the state level, and widely varying data collection and storage practices. This situation was compounded by issues of access, with many municipalities ignoring requests for information or meetings. Open public records requests (OPRA) were not filed at the municipal, county, or state levels due to time and scope of project considerations. Although details on the effectiveness of post-Sandy long-term recovery in New Jersey would be helpful to assess the effectiveness of the organizational landscape and timelines of recovery detailed in this study, program evaluation is beyond the scope of this study. The following is an exchange about recovery data from an interview with a local municipal official:

> Q: I've actually been looking to see if there's a central repository; has anybody been tracking the number of homes that were destroyed or damaged?
> A: She has.
> Q: At the county or state level, do you know?
> A: I would assume that that's probably at each construction office.
> Q: Wow, okay.
> A: If that [*sic*] data's around, it's [*sic*] at the [municipal] construction offices. (Bayside OEM Director)

**Stakeholder Relations as Community Relationships**

> "How do you not have a stake in the situation, in the recovery, if you're part of the community?" (Grassroots Organizer 1)

Interviews conducted as part of the field research revealed stakeholder definitions encompassing a much broader array of actors than those organizations typically thought of as stakeholders in standard management theory. Participant definitions have much more in common with the whole community framework utilized by FEMA than the traditional models of stakeholder relationships and engagement found in Anglo-American management literature. Organizational leaders across impacted coastal regions of New Jersey defined stakeholders broadly to include homeowners, businesses, seasonal residents, and tourists. One group that was often overlooked in these definitions, however, were renters. Some stakeholders' comments are summarized in Table 4.

**Stakeholder Exclusion in the Region**

Renters were not eligible for the same residential reconstruction programs as homeowners were, making the tracking of initial storm impacts, displacement, recovery, and return on renters even more tenuous then that of homeowners. Renters were excluded from the same short-term housing assistance that homeowners were for short-term needs such as rental assistance to move to short-term housing while repairs to homes were being made, assistance with utilities, and furnace repairs to restore heat. The Hurricane Sandy Rebuilding Strategy Report from the HUD Hurricane Sandy Rebuilding Task Force (2013) reported that 43% of those that registered for FEMA assistance were renters.

The October 2013 report, Hurricane Sandy Housing: Needs One Year Later, from Enterprise Community Partners reported that 50% of all renters across Sandy-impacted areas in New Jersey, New York, and Connecticut suffered building damage after Hurricane Sandy and that 32% reported wanting to move after Sandy but could not move

because of the terms of their lease. Enterprise Community Partners is a nonprofit that builds affordable housing in low- and moderate-income areas. They commissioned a survey using representative samples to assess Sandy's impact on housing across these three states. Enterprise reported that the overall impact to housing was greatest in New Jersey, with 27% of households reporting damage, compared to 14% in New York State and 9% of homes in Connecticut. A report published by the New Jersey Fair Share Housing Center in February 2015 revealed that 60% of homes owned directly by homeowners and 40% of renters' homes were significantly impacted by the storm.

While New Jersey state programs such as RREM and Pathways captured only a fraction of impacted homeowners in the state, similar programs for renters operated at an even smaller scale. In February 2015, the Fair Share Housing Center reported that only 51 of 5,400 planned rehabilitations of multifamily buildings were complete. As of January 2015, only 33% of Sandy assistance was allocated for renters, according to the Fair Share Housing Center, with 67% of the funds flowing to homeowners. This figure represents an increase from 25% of funds allocated to renters and 75% allocated to homeowners in January 2014. Temporary housing programs for displaced residents were in place for only up to 24 months following the storm. Renters were dependent upon landlords' and developers' rebuilding decisions for their timely return to the communities.

Compounding these issues of stakeholder exclusion were political ones. State assistance for multifamily rebuilding was directed to Belleville in northern New Jersey and New Brunswick in central New Jersey; neither community received much impact from Sandy. New Brunswick, in fact, housed displaced residents from the New Jersey

coastal regions in gyms and student centers at Rutgers University, the New Jersey public land grant university, during the height of the storm. A lack of information in Spanish compounded these issues of rebuilding and returning home for Latino residents, resulting in a lawsuit by the Fair Share Housing Center, Latino Action Center, and NJ NAACP (Walsh, 2014) to compel the state to ensure that information and resources were being distributed to Latino and African American communities impacted by the storm. The Fair Share Housing Center also reported that the State of New Jersey refused, on multiple occasions, to turn over requested monitoring reports and other documents. Information in a February 2015 report from the Fair Share Housing Center corresponds with statements from a high-level informant in the New Jersey Office of Legislative Services that state agencies often refused to turn over program and budget documents to the state legislature for review during the annual budget process over the 5-year period of this study.

The issue of lost renters as missing stakeholders in these stakeholder discussions is compounded by the loss of naturally occurring affordable housing along the northern bayshore of Monmouth County, and along the western edge of Barnegat Bay in Ocean County. Barrier island communities with high numbers of retirees living in family or seasonal homes bought or built decades before Sandy were also heavily impacted and displaced by the storm. Although these losses are not readily quantifiable, organizational leaders in housing, social services, and economic development often brought up the loss of these homes as complicating factors in post-Sandy recovery.

**Stakeholder Relationships at the Community Level**

In disaster response and recovery, federally chartered organizations such as the American Red Cross are initially viewed as the central or focal stakeholder within the

networks of organizations responding, which is in line with traditional Anglo-American stakeholder models that use a framework of primary and secondary stakeholders to identify the core organization within a stakeholder relationship. However, community leaders in coastal New Jersey reported not being "impressed" with the Red Cross response: "When we brought the Red Cross in, I was not impressed," reported a municipal leader in a bayside community. This municipal leader also emphasized the role of local volunteers and community organizations in local-level emergency response and recovery:

> "Know what groups are active in your community, because those are the volunteer groups that you're really going to rely upon, because they do know your community better than anybody else." (Municipal Administrator 2 Bay Town)

Findings from the field indicate that stakeholder relationships consist of a mix of relationships between existing disaster relief organizations, existing community organizations, and new or emergent organizations usually engaged at the neighborhood or community level. Organizations may have been active in disaster response and recovery before, or they may have become engaged in response and recovery due to specific community needs that were going unmet. Some grant makers active in long-term recovery have a specific focus; in the case of the Robin Hood Foundation, a major post-Sandy grant maker, anti-poverty initiatives in New York City are a core focus. A singular focus may direct a grant maker's attention and resources toward specific initiatives, organizations, and programs consistent with the grant maker's focus. Although this approach may cause conflict among networked stakeholders active in the long-term recovery, it may also provide opportunities to create new connections among stakeholders.

The Robin Hood Foundation initially focused its assistance efforts on the beachside community of Sea Bright, even though the foundation funded a number of different organizations throughout New Jersey, such as the Ocean County Long-Term Recovery Group (recovery processes and case management), 180 Turning Lives Around (serving storm-impacted clients who were victims of prestorm domestic violence, and often economic hardships as well), and various organizations and churches along the hard-hit northern bay shore. However, the Robin Hood Foundation would not directly fund recovery efforts in the small bayside community of Oceanport, located across the river from Sea Bright, because the overall socioeconomic status of the community was too high, despite a high number of seniors living in the community for 40, 50, 60, or more years and a number of single parents with limited incomes, assets, and equity. These residents' assets were mainly bound to their homes. By reaching out directly to SBP, the rebranded nonprofit organization originally known as the St. Bernard Project that seeks to expedite disaster recovery and rebuilding efforts, to see if the organization would cover individual cases in Oceanport, a newly formed community organization was able to help connect impacted individual residents with SBP on a case-by-case basis to help with housing reconstruction and other rebuilding tasks.

## Processes of Long-Term Recovery After Disaster

Field research uncovered a process of long-term recovery that occurs in phases over time. There are distinct organizational activities that occur after disaster, as well as specific types of organizations with specific competencies and capabilities that become engaged in the recovery at specific points in time. An overview of these timelines, activities, and organizations is included in Tables 6, 7, and 8. It is the organizational

sequencing of activities over time that builds relationships between organizations and embeds these relationships within communities. In the case of local organizations, some of these relationships may be built prior to the natural disaster or social disruption. Organizational partnering becomes a function of response and recovery activities over time. FEMA terms this approach to response and recovery, “a whole community response,” components of which are reflected in Table 10.

**Organizational Activities After Disaster: The Organizational Landscape of Disaster**

Organizational response begins with shelter in place and/or evacuation warnings as the impacts of a natural disaster begin. Primary organizational activities at this point in time included active rescues, meeting the needs of special needs populations, ensuring the safety and security of a community, and enacting command and control through the ICS. During the Sandy landfall, sheltering in place lasted from 24 to 36 hours, depending on the part of the coast in which residents lived. During the first 72 hours after Sandy made landfall, local communities were the primary locus of emergency response activities. Emergency response activities included continuing rescue activities by local police and fire departments, offices of emergency management, and the New Jersey National Guard.

As emergency response evolves into short-term recovery, debris removal, food, and shelter become paramount needs in impacted communities. After 10–12 days, the extent of needs for temporary housing and rental assistance, clothing, income replacement, social, emotional and spiritual support, and assistance with insurance claims and federal assistance processes becomes clear. A mix of local, county, state, and national organizations began to administer the emerging disaster recovery processes. These disaster recovery processes take place over multiple years.

At the conclusion of this 5-year research study, only four organizations were still active in rebuilding and recovery activities. In contrast, in November and December 2012, when the long-term recovery groups were formed in Monmouth and Ocean counties, more than 200 organizations attended the initial meetings where these long-term recovery groups were formed. Multiple informants and study participants reported being cynical and that the reason for the initial high attendance was "a money grab." As resources were channeled to a smaller and smaller number of organizations over time and long-term recovery processes became institutionalized within the long-term recovery groups and through the requirements of the state and federal assistance programs, organizations began to exit the process.

> "Long-term recovery begins when the adrenaline rush is over and the paperwork begins." (Executive Director, County Long-Term Recovery Group 2)

## Timelines of Recovery

Distinct organizational actions in response to individual and community needs unfold over time as the different phases of a recovery transition from the initial actions of emergency response to short-term recovery and then into the multiyear, long-term recovery. Tables 8 and 9 detail a timeline of organizational response by individual needs and a timeline of organizational response by type of organization, respectively.

### Emergency Response

Emergency response activities involve public safety functions to ensure that residents are safe in their homes or have access to secure shelters. Rescue, attending to residents' special needs, communication, and, where necessary, evacuations, are all

activities typically executed by local public safety and community organizations within the first 3 days after a natural disaster occurs.

**Short-Term Recovery**

Short-term recovery ranges from 3 weeks to 3 months, depending upon the severity of impact in a community or region. Once people and residences are secured, organizational activities shift toward debris removal and the restoration of utilities and communication infrastructures. During this period, emergency shelter and feeding activities will transition into temporary housing assistance and expanded food bank operations. Short-term recovery activities can last up to 3 months before activities become organized around processes of long-term recovery.

**Long-Term Recovery**

Long-term recovery is a multiyear process of rebuilding, case management, financial assistance, emotional and spiritual support, and meeting the unmet needs of residents. The process requires coordinated activities of organizations across the public, private, and plural sectors. Long-term recovery activities may include the continuation of temporary housing assistance, rebuilding and reconstruction activities, expanded use of food banks in the impacted region, financial assistance from state and federal agencies, payouts from insurance companies, and services from nonprofits and FBOs to meet unmet needs or problems navigating the maze of financial assistance programs. Shortfalls in insurance payments and state and federal assistance to residents are often filled by nonprofits and FBOs. Nonprofit organizations and FBOs take on responsibility for "unmet needs" and first run weekly and then monthly meetings that review cases of impacted residents for assistance. Other long-term recovery activities may include the

provision of mental health services, grassroots organizing to ensure that the needs of the community and residents are not overlooked, policy analysis, and lobbying to fix problems in disaster response policy and assistance programs.

Case management is an organizational activity that requires effective organizational partnering, yet is often contested and a source of conflict among interorganizational partners involved in post-Sandy recovery. All long-term recovery groups interviewed ($n$ = 5) had case management committees, and two of the long-term recovery groups had their own robust case management function. Case management is the provision of integrated services to disaster-impacted residents; these services include financial assistance, construction management, and counseling. Case managers will often help their clients navigate the complexities of state and federal disaster assistance programs. The case management contract for post-Sandy recovery was awarded to Catholic Charities, a large FBO with prior experience in providing social service functions and mental health activities in New Jersey. However, multiple organizations employed case managers, creating tension over not only workflow and case management, but also resources allocated for unmet needs cases.

> I think that was my biggest—when I got into this recovery, I think that that was the biggest reaction that I had—was how much tension there was. And the lack of collaboration, I think, just really blew me out of the water. And again, I do think that personalities and values do play a big role in it for some reason. And I don't want to disparage any individuals at all. But I do think that, like you said, you've got a group of teachers and nurses and social workers that kind of sprouted up and had the same values. And they've been able to work together to create a unified mission. (Regional Director, National Disaster Recovery Organization 3)

The long-term recovery groups in coastal New Jersey held weekly meetings or “tables” during which they focused on the toughest cases in recovery and rebuilding. It

appeared to some organizational executives that some organizations sought to supplement funding for their own organizations by shifting clients off to the unmet needs tables to both gain additional resources and close out the case. Case closures were an important indicator of the effectiveness of an organization, regardless of how successful the recovery process was for clients. Unmet needs often emerge from these processes as unexpected expenses, inadequate funding from private, state, and federal sources, and the drawing down of personal resources such as savings accounts, retirement accounts, and other financial assets. Residents may find that after the construction process, they are not able to afford household furnishings or other household goods, or that the contractor failed to budget for flood vents or stairs on newly elevated homes designed to meet the requirements for flood insurance.

**Disaster Response and Recovery Organizations**

> The stakes are very high in disaster recovery. I mean, if you're an organization—even if you have the best intentions, if you are not able to recover a family completely and if something goes wrong, which invariably it will—if your organization is not able to make it right, you can really cause a lot of damage. For instance, there are times where we—especially now, you know, we'll build an estimate for the homeowner. And we do our best to be as comprehensive as possible. We get actual bids around the site. But in construction, especially in rehab, as you start to tear down walls and start to discover more, there's structural damage to houses, there's mold that we can uncover, and their budget can go up $20,000–$40,000. And that can bury a small nonprofit. And you can be in a position where you go in, you open a house, you can't finish the work, and now you've stranded a family, ruined their equity and their safety and their security. So the stakes are high. So I think that long-term recovery groups should create standards that other groups need to abide by. They need to be clear. There needs to be clear rules. They shouldn't be dictating depending on their whim. I think that there should be clear rules that instill the standard that other non-profits need to meet in order to be part of that collaboration. There's some balance there. (Regional Director, National Disaster Recovery Organization 3)

Multiple types of organizations were present during long-term recovery in coastal New Jersey. These organizations included long-term recovery groups, FBOs, the

federally chartered American Red Cross, social enterprises, and national and state VOADS and COADs. Although community organizations were also actively involved in disaster response and recovery, disaster response and recovery organizations were the most prominent organizations to surface during interviews and observations. Community organizations are discussed in the Foundations and Hyperlocal Organizing sections below. The disaster response and recovery organizations discussed in this section were present in coastal New Jersey and Staten Island and uncovered through observations, interviews, and organizational documents.

**Long-Term Recovery Groups**

Long-term recovery groups are common features of a post-disaster environment and are documented in both FEMA response and recovery plans and in guidance offered by the national voluntary organizations active in disaster (NVOAD). Figures 6 and 7 provide a general overview of the process and organizational structure of long-term recovery groups. In New Jersey, at least 10 long-term recovery groups were established, with five of those established in the coastal region, which is the focus of this study. *Long-term recovery groups* are defined by the national VOAD and FEMA as a local program usually established through local organizations and supported by outside resources and organizations. In practice, however, national disaster assistance organizations, many associated with the national VOAD, either directly or through their state chapter, played major roles in the day-to-day operations of county long-term recovery groups. Local United Way chapters played a major role in long-term recovery group formation, especially in Monmouth and Ocean counties, serving as fiscal agent, arranging for the use of facilities at their corporate partners, and serving on long-term recovery group boards.

**VOADs and COADs**

The national VOAD is a national coalition of organizations involved in disaster relief and recovery in all 50 states. New Jersey has a state VOAD that connected organizations active in post-Sandy recovery in New Jersey. Although not all organizations that were active in post-Sandy recovery in New Jersey were members of the state VOAD, formally constituted disaster relief organizations such as the Salvation Army, American Red Cross, Team Rubicon, and FBOs such as Episcopal Relief and Development, Lutheran Social Ministries, The United Methodist Church (A Future with Hope, which served as a newly created disaster relief organization for the Methodist Church in post-Sandy New Jersey and played roles in both the state VOAD and county long-term recovery groups), Catholic Charities, and the Saint Vincent DePaul Society were all members of NJVOAD. The Food Bank of New Jersey is also a member of the state VOAD and played a major role in enabling coordination of food stocks and distribution among the many pop-up food pantries and food banks that emerged in the aftermath of Hurricane Sandy in New Jersey. Other organizations with specific skills such as the Mental Health Association of New Jersey, and Volunteer Lawyers for Justice are also members of NJVOAD. NJVOAD served as a higher level coordinating body in which information was exchanged and different organizations were made aware of the resources that existed across the state. A number of community organizations active in disaster (COADs) emerged in response to Hurricane Sandy.

NJVOAD worked closely with NJ211, which was the official state portal for access to information and services for residents impacted by Hurricane Sandy. NJ211 is overseen by the New Jersey Board of Public Utilities, is subsidiary of United Way and

has existed since at least 2002. Access is offered via telephone—both landline and cellular—and through the web. The main role of NJ211 is to provide information about or access to resources such as energy assistance, access to health care, foreclosure assistance, warming centers, tax assistance, and access to addiction services. It serves as an all-in-one, one-stop shop for a broad array of services. After Hurricane Sandy, NJ211 was promoted as a prime resource for impacted residents to access information about hurricane assistance and rebuilding programs such as the Pathways programs and the RREM program.

Although NJVOAD and NJ211 featured prominently in interviews and in interactions within the nonprofit sector, municipal officials I interviewed did not have much interaction with either organization, and they did not feature in interviews as sources of assistance for municipal officials. The one exception was the municipal administrator of a large bayside town who had previous experience in the nonprofit world. This administrator mentioned how both NJVOAD and NJ211 often directed residents to a Catholic Charities case management office located near their municipal offices.

**Faith-Based Organizations**

Faith-based organizations were highly present across all sources used for this study, including in interviews, participant observation, organizational documents, and media or news stories. FBOs were active in long-term recovery groups, the NJVOAD, and as part of the Nonprofit Organization Builders Table (see Nonprofit Organization Builders Table, below). Catholic Charities held the case management contract for New Jersey and served as the lead agency for case management, despite the wide range of

other organizations employing case managers and providing case management services. A Future with Hope, the disaster relief arm of the Trenton Diocese of the United Methodist Church, was formed in 2013 and focused on rebuilding and construction services. Lutheran Social Ministries were highly active in Monmouth County and provided key employees to the Monmouth County Long-Term Recovery Group. Presbyterian Disaster Assistance provided regional and national support to its local congregations, and local congregational leaders held key roles on the Monmouth County Long-Term Recovery Group volunteer committee. Presbyterian Disaster Assistance continued to fund volunteer and housing managers, even after many organizations exited the long-term recovery process. While less visible among the LTRGs, local Episcopal dioceses played important roles in community-level recovery and provided leadership to the NJVOAD throughout the recovery period.

Local churches and parishes played key roles in relief throughout the region. Activities included establishing food pantries and food shelves, providing clothing, distributing gift cards for household goods and supplies, connecting impacted residents with other organizations for financial assistance and emotional and spiritual support, and serving as a key point of contact in local neighborhoods and communities while rebuilding and recovery took place. Food pantries and food shelves are spaces in local churches or other community organizations that provide a limited number of shelf-stable goods and usually operate with limited hours. Food banks in New Jersey are larger warehouse-based operations that both serve residents directly and provide warehouse and logistical support for regional food distribution operations conducted by other organizations. According to multiple informants and the 2016 NJVOAD report on

nonprofits, use of food banks increased tremendously following Hurricane Sandy, and remained high for several years after, while new grassroots food banks opened during these years. Newly created food pantries and food shelves filled in the gaps in hard-hit areas of the region. Some of these food pantries, such as the People's Pantry in Brick Township, continued to operate 5 years after their establishment after Hurricane Sandy.

**The American Red Cross**

The American Red Cross was highly visible throughout the recovery process as a member of the LTRGs and the NJVOAD. However, the American Red Cross was not a focal or central organization within many of the networked stakeholder relationships that existed throughout the region. The most important contribution of the American Red Cross to the post-Sandy recovery was its ownership and management of the coordinated assistance network (CAN), a database of all case management records generated through residents' requests for assistance. Although ownership and management of this central information repository would appear to make the American Red Cross a focal organization in long-term recovery, its role in providing case management services and in the rebuilding process itself was limited. Community organizations were reluctant to engage with the American Red Cross because of negative experiences with the American Red Cross during the emergency response period. These issues are addressed in Hyperlocal Organizing, below. Hurricane Sandy also represented the first time that the American Red Cross became engaged in the long-term recovery process, and its inexperience with long-term recovery processes may have contributed to some of these negative experiences.

**Social Enterprises and Disaster Relief Nonprofits**

In coastal New Jersey, SBP was the primary social enterprise active in long-term recovery efforts. SBP was formed in March 2006 by two volunteers working on Katrina recovery in St. Bernard Parish, immediately south of New Orleans. SBP has rebuilt 1,300 homes across the United States in Baton Rouge and New Orleans, Louisiana, Joplin, Missouri, Staten Island and Rockaway, New York, San Marcos, Texas, Columbia, South Carolina, and White Sulphur Springs, West Virginia, as well as in Monmouth and Ocean counties in New Jersey. The stated mission of SBP (n.d., para. 2) is to "shrink the time between disaster and recovery." SBP engages in different types of recovery activities to meet that goal. SBP not only repairs and reconstructs homes using volunteer labor, but also by working with other organizations, city, and state governments as an adviser on poststorm recovery, and as an advocate for changes in public disaster assistance and recovery support. The organization attempts to build public policies and interorganizational processes that speed the time to recovery. Since its founding in March 2006, SBP has overseen approximately 25,000 volunteers per year, many of them AmeriCorps volunteers, and has harnessed the power of 180,000 volunteers. SBP has an extensive set of corporate partnerships. SBP's corporate partnerships provides materials as well as volunteer labor, with some corporations regularly loaning employees out for rebuilding projects. SBP has partnered with Toyota Motor Corporation and is adapting its lean manufacturing model to long-term recovery.

SBP was invited into the coastal New Jersey long-term recovery process by Beach Town in March 2014 as a response to a perceived lack of commitment from state and county authorities and a stalled recovery. This particular beach town had seen mass

evacuation and had been inundated by both ocean and bay water. SBP was already active in Staten Island and The Rockaways in New York and initially focused on this one beach town in coastal New Jersey at the invitation of the mayor. Once on the ground, the widespread destruction in bayside towns became apparent, and SBP expanded its operations to these mixed-income bayside communities to the north. Bayside municipalities to the west were generally more affluent bedroom communities. However, some of these bayside communities to the west had pockets of less affluent residents, in many cases senior citizens who were struggling to repair or rebuild their homes. SBP eventually extended operations to these communities as well. As of January 2018, SBP was one of two remaining organizations in coastal New Jersey still focusing on Sandy rebuilding and recovery activities.

**Nonprofit Organization Builders Table**

The Nonprofit Organization (NPO) Builders Table was created in 2016 as an alliance of the SBP, A Future with Hope, the Affordable Housing Alliance, and the OCLTRG. These four organizations were the last four recovery organizations active 4 years after Hurricane Sandy and chose to work with one another after observing each other's work over the previous 4 years. This alliance was based upon similar nonprofit building alliances that had been enacted in New Orleans in the years after Hurricane Katrina.

> "We worked with one another at the Long-Term Recovery Group over a couple of years and saw that we had similarities in our working styles, concerns, and emphasis on clients." (NPO Builders Table Executive 1)

The NPO Builders Table was created to address unmet needs throughout the coastal region. Within the NPO Builders Table, the OCLTRG became responsible for

case management services, with the three other organizations splitting rebuilding responsibility in different parts of the coastal New Jersey region. SBP provided rebuilding services in the northern shore region, the Affordable Housing Alliance in the central shore region, and A Future with Hope in the southern shore region. When first created in 2013, A Future with Hope provided both case management and rebuilding services, employing case managers to work with impacted residents as well as a construction manager to oversee site construction and municipal permitting processes. As the work of A Future with Hope evolved, the organization began to emphasize rebuilding rather than comprehensive services and promoted modular construction. The Affordable Housing Alliance also emphasized modular construction over "stick-build" homes—the use of lumber and wood framing in residential construction. SBP emphasized stick-build homes.

These building choices are not merely technical choices; they reflect the organizational models that each member of the NPO Builders Table provides. SBP relies heavily on volunteer labor that come into the impacted community for a week or two and work on specific home rebuilding projects. SBP teams with corporate organizations that provide volunteers to work on rebuilding project and hosts college and church-based groups. In addition to this volunteer labor, SBP recruits and supervises AmeriCorps volunteers to work on administering rebuilding programs and to work with the rotating volunteer groups. The Affordable Housing Alliance and A Future with Hope rely much less on volunteer labor (very little for the Affordable Housing Alliance) and use professional construction and project managers to oversee the entire reconstruction and rebuilding process in impacted communities. Modular homes require less labor than

stick-builds to put together and require attention to particular detail, such as ensuring that utility hookups, flood vents, and stairs are included with each modular home purchased or donated by national chains, individuals, or nonprofits.

**Characteristics of Post-Sandy Recovery**

*Hidden pockets* refers to the general regional invisibility of impacted homes and neighborhoods as the post-Sandy recovery progressed over time, in contrast to Hurricane Katrina, where widespread displacement and ruin was visible from Day 1 throughout the post-Katrina recovery process. While living in New Orleans in 2009, 4 years after Katina's impact, there were still whole neighborhoods of vacant lots, stairs to nowhere, boarded-up homes, and abandoned businesses everywhere. Unlike Katrina, the Sandy damage tends to be hidden and tucked away in neighborhoods and communities that look whole, but on closer look through a window or on a walk through the neighborhood, incomplete repairs, stalled recovery, and possible displacement can be witnessed. An understanding of these hidden pockets is important for understanding resource flow and organizational activities over time in Sandy-impacted communities. Hidden pockets may tell us something about the priorities of municipal and state leadership, the priorities of nonprofits active in recovery in the region, and dynamics of real estate and development in communities impacted by Hurricane Sandy.

*Beachside* and *bayside* refer to the tendency of the media and the general public to associate the impact of Hurricane Sandy with the beach towns that typically see high tourist volumes in the summer months. Also, beachside and bayside refer to the seeming ability of beach towns to recover more quickly than bayside and riverside towns. Hurricane Sandy is still associated with the iconic image of the roller coaster from the

Seaside Heights Boardwalk sitting in the ocean rather than with the empty lots and empty homes that still dot many bayside and riverside towns 5 years after the storm. This dichotomous image of uneven recovery kept emerging throughout the interviews, drives through towns, and the press coverage on Sandy recovery. Boardwalk completions and openings are celebrated as senior citizens struggle to find funding to pay for the venting they need to receive a certificate of occupancy to complete their recovery and move back home.

Given their draw as summer tourist destinations, some beach towns used media to draw attention to and bring needed resources into their communities. Many coastal New Jersey communities, despite their coastal location, did not have the same opportunities.

> I was always able to get local press, News 12, NJTV, *Asbury Park Press*, the *Post Star*, maybe *NJ.com*. But I can also get [Channel] 2, 4, 7, and 5 out of New York, maybe 1 out of Philly. But what helps the most is if you get an AP reporter. And I think this is the way local officials have to think. So a guy named Wayne Perry who's an Associated Press reporter, good guy, I tell him what we're looking to do. I say, "Wayne, I know this sounds odd. I need your help. If you write a story and it's a good story, it goes out on the wire." Wire goes from here to California, Texas to Minnesota. It's the whole thing. (Beachside Mayor 1, personal communication)

> When you turn around and you look at what [Beachside Town 2] did, they had that frigging concert and all this. And they had a lot of money flow into their town. Where are we going to do that? What big stars did we have in [Bayside Town 1]? You know? I mean, we got what's his name____, who's part of that band—what the hell is it—the _____. Do you think he'd come back and say, "I'll give a concert to my own town to help them"? No.
>
> [Famous Drummer] used to live in [Bayside Town] years ago. Did he come by? No. The guy that wrote the song for *Dirty Dancing*, "Time of My Life." He lives on [Point] Avenue. Did he help? Come forward? No. So, I mean, you know, how do you go about pulling in the funds? But at that time, we still didn't have [local community nonprofit] suck up the money. (Bayside OEM Director, personal communication,

The dichotomous nature of the recovery between beachside and bayside towns in coastal New Jersey after Hurricane Sandy provides a framework for understanding the problem of hidden pockets and a sense of isolation and abandonment felt by many middle-class communities, which by most measures should be well-resourced with strong community networks and stakeholder relationships.

**Isolation and Abandonment**

Isolation and abandonment is a general theme and sentiment of residents who felt geographically cut off from other parts of the region and/or from sources of assistance and social support. It is a sentiment and theme raised throughout the post-Sandy *Internews* (Napoli, 2014) interviews in Staten Island, in conversations and interviews with organizers working with grassroots groups, in discussion or interviews around unmet residential recovery needs with various recovery organizations in Monmouth and Ocean counties, and in random comments by impacted residents in random encounters I witnessed or was involved in over the 5 years of the study. Isolation and abandonment may refer to those individuals and families who have had difficulty in accessing government and nonprofit sources of assistance. It may also reflect the extent of unmet needs in a particular disaster-impacted region. Middle-class communities in particular may have a sense of isolation or abandonment as they may not qualify for certain recovery programs because their income and assets were too high. Alternatively, the recovery dollars for which they do qualify may not be enough to restore them to predisaster standards of living. They have rebuilt, but they have not recovered.

**Hyperlocal Organizing**

*Hyperlocal organizing* is the process of grassroots communication and coordination to meet local needs overlooked by institutional response efforts. Interviews and field research across coastal New Jersey uncovered a variety of ways in which residents responded to disruption in their communities and engaged in organizing activities in the days, weeks, and years after Sandy made impact. Although emergent behaviors among individuals are a normal response in disaster-impacted communities, emergent organizing processes and establishing new organizations as a response to disaster is less well understood and documented.[2]

Existing local organizations often mobilized to support emergent hyperlocal efforts. In Monmouth County, the social enterprise JBJ Soul Kitchen sourced and provided food to local restaurants that delivered meals and food supplies to hyperlocal organizations providing services to displaced residents. The Oceanport Sports Foundation, a registered 501c3 organization, collected financial donations that were used to buy supplies for impacted residents until Oceanport Cares, the hyperlocal organization that emerged from microshelter operations at the Maple Place School in Oceanport, incorporated in December 2012.

A regional surf apparel company headquartered in a bayside town, used approximately $500,000 from its corporate treasury to support heavily impacted businesses and nonprofits in coastal New Jersey until state and federal assistance began to be distributed. In the immediate aftermath of Hurricane Sandy, the owners and leaders of the company made daily Costco runs to support emergent microshelters at different volunteer firehouses located in bayside towns. They eventually provided cash donations

and partnered with Waves for Water, an international NPO, to raise money to support local organizations heavily impacted by Sandy.

Communities requested specific resources that national and regional nonprofits and government agencies were unwilling or unable to fulfill. The failure of this ability to meet community needs inspired organizing processes that connected local organizations with one another to fill in the gaps of institutional response.[3] This led to the emergence of new (hyperlocal) organizations that specifically address these gaps. Sea Bright and Rumson residents organized assistance for displaced Sea Bright residents (Sea Bright was under mandatory evacuation and suffered severe damage) in a church hall across the river from Sea Bright in Rumson. These efforts later became more formally organized as Sea Bright Rising and the Sea Bright Resource Center, with one of the founders of the Sea Bright Resource Center later becoming communications director at the MCLTRG 15 months after the storm.

Assistance in Oceanport was organized at a middle school where impacted residents from Oceanport and the nearby towns of Sea Bright, Monmouth Beach, and Long Branch could receive assistance. Oceanport later moved operations to a volunteer firehouse so the school could reopen. Volunteer firehouses in Ship Bottom, Stafford Township, and Eagleswood Townships in Ocean County served to collect and distribute resources from multiple sources to impacted residents. Our Lady of Perpetual Help, a Catholic Church in Highlands, New Jersey, became the nascent site of hyperlocal organizing processes by impacted residents of Highland, as well as for residents from adjoining bayshore areas. Churches in Keyport and Union Beach along the bayshore became focal points of recovery in those communities and de facto community

organizations for interaction with regional and national disaster relief organizations and the MCLTRG.

Although the media regularly ran images of a sunken roller coaster from the Seaside Heights Boardwalk, year-round residents and officials in multiple communities waited for the American Red Cross to arrive with resources and people, for local damage assessments from FEMA and private insurance adjusters, for the reopening plans for their neighborhoods and communities, and for information on what to do next. Residents and small business owners in bayside communities in southern Ocean County reported waiting in vain for the Red Cross to arrive, while other communities in northern Monmouth County received resources and volunteers that were mismatched for the needs of the community. Although some local communities had a well-organized emergency response plan, others were left to rely on the mercies of their neighboring communities and local volunteer organizations. New Jersey hyperlocal organizations were often able to use volunteer firehouses, local schools, and church halls to organize and distribute material and informational resources to impacted communities and residents. These activities were not directed by the church, fire department, or school; they were organized by residents of the impacted communities themselves.

## Conflict Among Networked Stakeholders

Ownership of client files was a key point of conflict among case managers and stakeholders. In particular, ownership of the CAN database and tools by the American Red Cross became a source of contention in the long-term recovery process. CAN tools are designed to provide access to client information in disaster-impacted communities, ideally from the first encounter between an agency representative and displaced residents

in shelters to the time residents are able to return to their home. The American Red Cross requires other agencies to sign a data sharing and confidentiality agreement. The data are maintained within systems controlled by the American Red Cross. Multiple case managers and agencies reported problems with moving client data from one nonprofit agency to another and between the nonprofits and state agencies providing financial assistance. Lost or misplaced documents and changing documentation requirements were reported by case managers as major complaints of impacted residents. Experienced case managers have clients bring all of their (the clients') documentation in paper form, photocopy those documents, and keep backup copies. Every time clients applied for a new assistance program or changed case managers and agencies as organizations exited the recovery process, impacted residents had to file new applications and new sets of documentation of eligibility and need.

Rebuilding and reconstruction activities were another source of organizational conflict during the post-Sandy recovery process. A key driver of this conflict was different models of reconstruction and rebuilding by different nonprofits. Nonprofits dependent upon volunteer labor favored a stick-build approach to reconstruction, which relies upon flows of volunteer labor to complete rebuilding projects. Already established housing nonprofits often favored modular construction, which relied on experienced construction workers to deliver and assemble homes. Local pop-up organizations such as Rebuild Union Beach, which partnered with Burners Without Borders, also favored modular designs, which allowed for construction schedules to be move forward without reliance upon volunteer labor from outside organizations. Nonprofits that were unfamiliar with construction processes and modular design would often fail to budget for stairs on

elevated homes, connections to utilities, and sometimes even construction permits, all of which would increase the cost of construction and sometimes even exceed the capabilities and budget of the nonprofit serving the resident.

Networked stakeholders had different degrees of cooperative relationships with municipal construction offices, which may have led to conflicts when the clients of one nonprofit were able to move forward with recovery while another's may have become stuck or stalled in the recovery process. These issues would usually make their way back to LTRGs and unmet needs committees. SBP, a national social enterprise that focuses solely on long-term recovery housing issues, might also reenter a community to fix problems associated with incomplete rebuilds after the initial wave of response, recovery, and reconstruction was over.

Field research uncovered conflicts between SBP and more traditional nonprofits. These conflicts appear to be both management- and business model-based. SBP was originally invited into New Jersey by one specific beachside municipality. The unique model and private sector partnership-driven approach favored by SBP brought SBP into conflict with nonprofits in the coastal New Jersey region. Like many of the conflicts identified in this study, case management and unmet needs appeared to be the main drivers of conflicts during the first few years SBP was operating in coastal New Jersey. Multiple community and organizational leaders reported that they had conflict with SBP national executives due to insistence by SBP on a rigid model of eligibility and rebuilding. Initially, SBP would only work within the one beachside community in which the mayor of the community had extended an invitation. However, as the widespread nature of the damage in adjacent bayside communities became apparent, SBP expanded

its operations. The community and organizational leaders who reported conflict with SBP national executives reported that they were able to develop good working relationships with the New Jersey executive director of SBP. The New Jersey operations of SBP eventually became a key player in the NPO Builders Table.

## Networks of Recovery

A total of 178 organizations were identified as active in disaster response and recovery in the coastal New Jersey region between 2012 and 2016. Although more than 200 organizations were reported as being involved in initial long-term recovery meetings in November and December of 2012, only 178 could be identified through interviews, organizational records, and field notes. Network density is only 3.5% for this network, meaning that there are very few connections among the stakeholders active in long-term recovery in coastal New Jersey as part of the larger regional recovery network. In stark contrast, the NPO Builders Table, which began supplanting the larger coastal regional network in 2016, has a network density of 100%. A 100% network density means that all organizations in this group are connected with one another. Within the NPO Builders Table, one organization was an emergent organization, one was a planned disaster response organization, one was part of the civic network in the community prior to the storm, and one was a new entrant to the region, but had previous experience as a disaster recovery organization.

Of the 25 most connected organizations active in the 2012–2016 recovery network, 28% of the organizations were emergent—that is, they did not exist prior to Hurricane Sandy and were organized in response to community and resident needs after the storm. Of those 25 most connected organizations, 36% were active in the coastal New

Jersey civic network prior to the storm and became engaged in the long-term recovery process because of their expertise or local knowledge. The remaining 36% of active organizations were part of the planned disaster response and recovery. Table 11 breaks down the organizations by type, role in the network, and ranking by degree centrality. Degree centrality serves as a method for identifying those organizations that are most connected within the network. Within the coastal New Jersey recovery network, the most connected organizations were a regional grant maker and a networked grassroots organization.

**Connecting Stakeholders Through "Boots on the Ground"**

A regional grant maker and a networked grassroots organization served as key brokers connecting multiple organizations in coastal New Jersey after Hurricane Sandy. Neither organization had been active in the coastal New Jersey region before the storm, and both were distinct organizations. The regional grant maker was a large philanthropic organization with high name recognition and credibility in an adjoining region. The networked grassroots organization formed as a disaster recovery organization after landfall of Hurricane Sandy. Although the organizations had different roles, both connected and made connections in coastal New Jersey in similar ways. Both organizations went into disaster-impacted communities and observed what organizations were hard at work and achieving results and partnered with them.

**Identifying Multiple Networks of Recovery in Coastal New Jersey**

Networks of recovery is a theme developed during interviews as part of the analytical memo writing that accompanied this study. This theme emerged as it became clear that municipal leaders were naming other municipalities, state, and federal agencies

as partners, while nonprofits were naming other nonprofits. However, with only seven municipalities interviewed, formal network analysis that compares the network ties of municipalities to those of nonprofits may be misleading. The municipalities with leaders interviewed span two counties out of a four-county region (plus parts of two other counties), while the nonprofits interviewed span all four counties and include regional and national nonprofits as well. Municipal leaders were asked directly whether or not they connected with LTRGs during the interviews and all but one stated they did *not* attend LTRG meetings or otherwise connect with them. One beachside mayor, when asked about working with LTRGs groups replied, “Not really. For the first while, it was just us and the governor's office.” The mayor focused on the mayor and governor’s office having been able to get both the Small Business Administration and FEMA to locate in the mayor’s town instead of some other nearby municipality rather than on connections with a wider set of organizations providing services in the region. This mayor also used the school district to reach underserved populations, such as the Latina/o community in the town.

However, in one large municipality, the municipal administrator came from a nonprofit background and regularly referred residents to a nearby nonprofit intake center for assistance with needs that went further than what the municipality could provide. Another large municipality that experienced major storm damage in both its beachside and bayside communities hired a former insurance executive to work closely with residents on issues related to private insurance, the National Flood Insurance Program (NFIP), RREM, and the earlier Pathways programs. This newly hired municipal staffer worked closely with their county long-term recovery group and other nonprofits to

educate themselves on the various recovery programs and to learn the capacity and capabilities of different nonprofits. They would refer complex cases to case managers working with the various nonprofits. A small bayside community utilized the services of a reinsurance executive who lived in town and volunteered to help residents navigate the complexities of private homeowners insurance and the NFIP.

What appeared to be emerging from interviews were three discrete networks of recovery—a nonprofit network, a mayors' network, and a municipal administrators' network—with very little overlap. Nonprofits named other nonprofits and the grant makers interviewed for this study named mainly nonprofits, although the list of grants made by the Robin Hood Foundation, a major grant maker in coastal New Jersey, included municipalities impacted by Hurricane Sandy. The Hurricane Sandy New Jersey Relief Fund, also known as the Governor's Fund, and the other prime philanthropic funder of post-Sandy recovery, made grants specifically to nonprofits. However, although not donating to municipalities directly, the Governor's Fund also made donations worth $4.5 million to 30 public schools across the state.

# CHAPTER 9

# DISCUSSION

> Solomon [executive in disaster response, national FBO] explained that we may perform several types of identifiable tasks, but never know every "knowable" fact. In many cases, we will not know how many cases, or the scope of needs of the individuals or the individuals who will be applying until we begin the work and intake. (Coastal NJ LTRG executive committee meeting minutes, January 2013)

## Processes of Long-Term Recovery After Disaster

This study unpacks four key components of long-term recovery after disaster: the overall landscape of recovery, processes of long-term recovery, timelines of recovery, and networks of recovery. These components shape the networked stakeholder relationship and collaborative communication that emerges in communities and regions grappling with long-term recovery after disaster. Time and geography bound the study, with field research taking place between 2012 and 2017 in coastal New Jersey between the Raritan Bay in the northeast and the Delaware Bay in the southwest. The study uncovers the types of organizations active in long-term recovery and the organizational activities in which they engage to help communities rebuild and reconnect. The organizational landscape of recovery makes visible the timelines and processes of long-term recovery. Long-term recovery is defined as an organizational process with distinct rhythms that unfolds over time as organizations and communities engage in specific activities of rebuilding and repair, navigating public, private, and plural sector assistance programs, and restoring the physical and social infrastructure of impacted communities.

Findings are generated from interviews, participant observation, archival data, and encounters in the 5-year period following Hurricane Sandy in coastal New Jersey.

Immersion in the field began the day after landfall of Hurricane Sandy from the safety of a microshelter in Oceanport, New Jersey, and continues through current activities with disaster planning organizations. Official exit for this particular study occurred in December 2017. Estimates of the completeness of post-Sandy recovery from 2017 interview participants range from 60% to 85%. The New Jersey Organizing project estimates that 22% of impacted residents are still displaced or are only partially rebuilt (Devecka-Rinear, et. al. 2017). Rebuilding, however, does not indicate a complete recovery because residents may have been able to rebuild their homes but exhausted their savings or retirement accounts in the process of rebuilding and/or while displaced from their homes. These residents become "stuck" and may often need to turn to nonprofits or other plural sector organizations to finish the recovery.

Data generated from this project make visible the contours of recovery following natural disaster. A period of emergency response and short-term recovery gives way to a lengthier and broader period of long-term recovery that extends over multiple years (Doerfel et al., 2013; Doerfel et al., 2010; Harris & Doerfel, 2016). This multiyear period of long-term recovery, in turn, has multiple inflection points in which the rhythms, functions of, and organizations active in recovery change over time. More specifically, long-term recovery can be defined as a specific set of communication and organizing processes that enables communities to bounce back, rebuild homes and communities, and restore some sense of normalcy, which is reflected in Proposition 1.

**Proposition 1:** Long-term recovery is a specific communication and organizing process following natural disaster that is separate from emergency response and short-term recovery.

During disaster response and recovery, individuals have specific needs that are usually met by a mix of organizations local to the disaster-impacted community, acting in partnership with state, regional, and national organizations (Doerfel et al., 2013; Harris & Doerfel, 2016, 2017; Kapucu & Hu, 2014). While emergency response and short-term recovery activities are geared toward safety, security, debris removal, and restoration of utility services (DHS, 2013), cross-sector organizational recovery activities over the long term are usually needed for residents and communities to rebuild using a combination of personal, federal, state, and nonprofit resources (DHS, 2011; GAO, 2016). There are no precise definitions of the timeline of long-term recovery in either the academic or professional literatures (Rubin, 1985, 2009; Smith & Wenger, 2007). This study sets a baseline of 5 years for long-term recovery with the caveat that recent field research emerging from Hurricane Katrina across the Gulf Coast highlights long-term recovery processes that may extend up to 10 years or more (Browne, 2015; Fothergill & Peek, 2015; Fussell, 2015; Kroll-Smith et al., 2015).

**RQ1:** What are the key functions of long-term recovery processes after natural disaster?

Processes of long-term recovery after disaster comprise a set of organizational activities that involve physical rebuilding, temporary housing, case management, social support, meeting the unmet needs of impacted residents, and obtaining funding from private insurance and state, federal, and nonprofit sources. Some impacted families and individuals may require food assistance and financial help to handle gas or increased transportation costs while displaced from their primary homes and communities. One common theme throughout meetings of local community organizations and LTRGs was

the drawing down of impacted residents' personal resources through not only the rebuilding process, but also because of extended displacement from home, requiring increased commute times, increased distances to travel to drop children off at school and community activities, and round trips to meet with contractors, check in on the rebuilding of their homes, and wrestle with permitting and other municipal construction processes. Meeting these unmet needs often requires cross-sector collaboration of networked stakeholders to allow impacted residents to finish the rebuilding process, move back home or find a new home, and begin again to live their lives in their disaster-impacted communities.

**RQ2:** What communication and organizing processes underlie long-term recovery from disaster?

Cross-sector collaboration involving an extended set of stakeholder relationships is a necessary component of long-term recovery (Chandrasekhar, Zhang, & Xiao, 2014; Simo & Bies, 2007). These networked stakeholder relationships are embedded within the disaster-impacted community and may represent either existing relationships among organizations already active in the community prior to the hurricane or new relationships formed as national and regional agencies and nonprofits enter the community (Harris & Doerfel, 2016). These stakeholder relationships rely on collaborative communication practices to share information, resources, and ideas (Deetz, 2017; Koschmann et al., 2012; Pfeffer & Salancik, 1978).

Networked stakeholder relationships are organizationally embedded within their communities (Crane, Matten, & Moon, 2004; Strand & Freeman, 2015) and provide the social infrastructure of recovery (Diani, 2015; Doerfel & Taylor, 2004; Galaskiewicz,

1979; Taylor & Doerfel, 2011). Within the context of long-term recovery, stakeholders may have either a financial interest in the community as a residential or business owner or a broader stake as a citizen of a particular community in which an individual resides as either a homeowner or renter. Stakeholders may also include tourists or other regular visitors to the beach towns of New Jersey who have an emotional stake in the community, and who may also contribute to the financial well-being of the community through local spending that supports local merchants and provides sales tax revenues to state and local government. This definition, of course, includes only domiciled residents and leaves out the large transient and homeless populations that are unseen, uncounted, and underreported in coastal New Jersey.

This study focuses only on organization-to-organization connections between organizations active in long-term recovery and not on individual connections to organizations. Understanding organizational relationships as connections among networked stakeholders is the key to understanding how to improve the flow of information, resources, and social support in disaster-impacted communities. If each organization possesses a certain amount of organizational capital based on resources, authority, status, role, or trust, then individuals as well as communities would be well-served by stronger stakeholder relationships (D. P. Aldrich & Meyer, 2015; Diani, 2015; Small, 2009b). Fostering stronger collaborative communication practices becomes a key approach for improving long-term relationships among organizations active in disaster response and recovery.

**Stakeholder Relationships are Community Relationships**

Traditional stakeholder frameworks offer precise definitions of what constitutes a stakeholder (R. E. Freeman, 1984). Organizations are perceived as having a particular stake in the success or survivability of another organization. A stake may be defined as an employment relationship, a relationship between a supplier and a customer, the symbiotic relationship between the media and the external relations functions of a firm, the stake of a community in the success of an organization, or the stake of an organization in the viability and sustainability of a community and the natural environment in which it operates.

Study participants provided expansive definitions of stakeholders that identified a wide range of organizations and people as stakeholders in post-Sandy coastal New Jersey. Although residents and the overall community itself were named as stakeholders by participants, renters were often overlooked in these definitions by community and organizational leaders or in the discussion of the impact of Sandy on the overall recovery of the community. Traditional Scandinavian stakeholder theory frames stakeholder relationships as not only networked, but also embedded within the community (Byrkjeflot, 2003; Strand & Freeman, 2015). These findings from this post-Sandy research indicate that organizational leaders have a much more expansive definition of stakeholders than that found in the academic literature and that these definitions align with Scandinavian models of networked, embedded stakeholder relationships, rather than with Anglo-American stakeholder frameworks that emphasize discrete primary and secondary stakeholder relationships (R. E. Freeman, 1984; G. Jackson, 2005; Mesure, 2005). However, renters often find they do not have access to the same sources of

assistance that homeowners do and their voice is often mediated through landlords or the local municipality. Renters are overlooked in discussions of stakeholder definitions because, while they have voting rights, they lack property ownership, which may be seen as more of a stake in a community than mere residence, even if children are enrolled in local schools. Renter exclusion, then, qualifies this proposed extension of Nordic stakeholder models to community survivability with an Anglo-American framing of who counts within a community. It appears that those who count are those who pay local taxes and own land. However, despite these renter exclusions from stakeholder definitions, findings indicate a relational, whole community approach toward defining stakeholders by organizational leaders, rather than a transactional, individualistic model. This leads to Proposition 2.

**Proposition 2:** Stakeholders are networked organizations with joint interests, are embedded within an organizational field, social sector, or community, and collaborate to solve social or environmental problems of mutual concern.

Research Question 3 informs Proposition 2:

**RQ3:** How are networked stakeholder relationships generated from the formal and informal communication activities and organizing processes within communities solving a joint problem of long-term recovery after natural disaster?

Stakeholders are typically conceptualized as organizations that are central within a network or organizational field. In disaster relief and recovery, national and regional organizations that are part of a state or national VOAD or are federally chartered are initially seen as the central, go-to organizations (DHS, 2008, 2013; Kosar, 2006). However, community organizations and emergent disaster relief and recovery

organizations are often present in the disaster-impacted community, filling in gaps and/or providing local knowledge (Drabek & McEntire, 2003; Harris & Doerfel, 2016; Stallings & Quarantelli, 1985). Community and organizational leaders in coastal New Jersey define stakeholders as a broad set of relationships within the disaster-impacted community or region. However, certain populations such as renters are often overlooked by community leaders and dependent upon stakeholders such landlords, developers, and municipalities for the pace and speed with which multiunit residences are rebuilt and renters are able to return to a community.

Stakeholders provide the organizational capacity, knowledge, and relationships through which the processes and activities of disaster relief and recovery are enacted. Stakeholders are connected through a series of communication practices that enable them to build networked relationships over time as they work in disaster-impacted communities.

**RQ4:** What are the most effective communication practices for connecting local, neighborhood, and grassroots organizations with public agencies and larger nonprofits in communities impacted by natural disaster?

Networked stakeholders used communication practices such as meetings, e-mail, phone conversations, and text to address issues of mutual concern. These communication activities allow for problems to be solved, activities to be coordinated, tasks to be split among different organizations, information exchanged, and resources allocated (Barbour & Gill, 2014; Schwartzman, 1989; Yates & Orlikowski, 1992). Meetings are the primary conduit through which these organizational connections are made and advanced. The formation phase of long-term recovery groups provided a physical and organizational

space within which organizations could connect and begin to partner with one another. The subsequent weekly and monthly meetings of LTRGs are where organizational relationships developed, problems were identified, and solutions generated (Koschmann, 2013; Koschmann et al., 2012; Sprain & Boromisza-Habashi, 2012). As organizational partners begin to know one another and build trust, more frequent connections through phone calls, e-mails, and one-on-one or small group meetings may occur. Those organizations that engage in more frequent communication with one another may, in turn, form smaller networks, such as the NPO Builders Table, that are focused on particular problems or regions.

## Networks of Recovery

**Proposition 3:** Networked stakeholders use collaborative communication to enact joint problem solving, coordinate activities, differentiate tasks, exchange information, and allocate resources.

Networked stakeholders create networks of recovery through their communication and organizational activities (Koschmann et al., 2012). These communications and organizing activities create a process of long-term recovery and shape how the timelines of recovery unfold (Aakhus & Bzdak, 2015; Barbour & Gill, 2014). Municipalities in New Jersey are responsible for getting things done after disaster, including debris removal, making sure electricity and other utilities are restored, and rebuilding and restoring public infrastructure such as roads, bridges, sewage systems, first aid squads, fire houses, police departments, and municipal buildings. Nonprofits in the disaster zone often deal directly with impacted residents neighborhoods, communities, counties, and regions. It is the nonprofits, in most cases, that make connections between organizations

and connect residents directly to resources through a case management process, an unmet needs table, or builders' alliance. These connections create networked stakeholder relationships designed to solve specific problems relating to recovery.

The NPO Builders Table in coastal New Jersey represented a small network of recovery generated out of a larger, earlier set of networked stakeholder relationships. This alliance or coalition of nonprofits emerged out of the interactions of four plural sector organizations over a 4-year period between 2013 and 2017. First engaging with one another through the county LTRGs, these four organizations found they had complementary skills, organizational capacity and expertise, similar working styles, and a like-minded approach to long-term recovery that focused on residents. These four organizations—the Affordable Housing Alliance, A Future with Hope, the OCLTRG, and SBP—represent a mix of local, regional, and national organizations, two of which were active prior to Hurricane Sandy and two of which were created after Hurricane Sandy. Consisting of a local housing organization, a regional FBO, an LTRG established in 2012, and a national social enterprise, this still-present network became responsible for most of the remaining residential recovery efforts in the coastal New Jersey region in 2016 and 2017. While most homeowners continued to grapple with reconstruction and rebuilding on their own late in the recovery, the NPO Builders Table became a resource of last resort for residents who became stuck in the recovery process with funding, permitting, or contractor issues. The NPO Builders Table is a strong example of how the organizational landscape and stakeholder relationships of long-term recovery change over time.

## The Organizational Landscape of Recovery

The landscape of recovery is defined by a sequence of organizational activities in which a wide range of organizations engage over time. Organizations may be local, regional, or national in nature, and they may be either existing or emergent organizations that enter into disaster-impacted communities to provide services and meet resident or community needs (Carlson et al., 2016; Harris & Doerfel, 2016; Kapucu & Hu, 2014). Emergent organizations, widely referred to as pop-ups by residents and organizational leaders in impacted communities, are designed to fill in the gaps in recovery that response and recovery organizations have not been able to fill (Drabek & McEntire, 2003; Majchrzak et al., 2007; Stallings & Quarantelli, 1985). The organizational landscape of long-term recovery in post-Sandy coastal New Jersey was shaped by (a) the social and organizational relationships of the disaster-impacted community, (b) the type and extent of damage from Hurricane Sandy, and (c) whether the disaster-impacted community was located beachside or bayside in the coastal New Jersey region.

Findings indicated that towns located directly on the beaches and barrier islands fared better in long-term recovery than those located on the bays, estuaries, and rivers of coastal New Jersey. The exceptions, however, are the large townships that straddle both the barrier island and the bayside opposite these barrier islands. These townships suffered extensive impact to their tax base. Within these large townships and across the many bayside communities are hidden pockets of homes and neighborhoods where recovery and rebuilding is slow or nonexistent. These hidden pockets of stalled recovery and stuck residents may lead to a sense of isolation and abandonment among residents and communities. Impacted residents living inside these hidden pockets may feel

geographically cut off or isolated or may have difficulty accessing sources of assistance, leading to a further sense of isolation or abandonment as the processes of long-term recovery unfold around them.

The organizations that remained active over the long haul of the recovery primarily focus on residents and communities whose recovery is stalled or that have hidden pockets of unrecovered neighborhoods and residents. Even in late stages of long-term recovery, new organizations may emerge to give voice to residents with stalled recovery processes, or existing organizations may change focus and build new expertise and capabilities to address problems and issues that arise during the long-term recovery process. The New Jersey Organizing Project was formed in 2015 to address the combined impact of delays in the distribution of state funding assistance, confusing paperwork, and unclear processes that result in underpayments or ineligibility determinations for impacted residents from private insurers and the NFIP. The OCLTRG became an expert on the NFIP after identifying systematic underpayments to New Jersey residents and improper clawbacks in which impacted residents were required to return money received from the NFIP because of rebuilding assistance received from other sources. The OCLTRG then worked with New Jersey U.S. Senator Robert Menendez to draft and implement policy changes to the NFIP.

Long-term recovery requires networked stakeholders that are able to operate across multiple domains of expertise as well as connect with and work with organizations with different expertise, capacity, and capabilities. It is these cross-sector relationships that shape the organizational landscape of recovery. The organizational landscape of recovery itself is a set of connections and processes that sequence the delivery of

particular resources, competencies, and expertise to disaster-impacted residents and communities. The emergence and change of these connections and processes creates networked stakeholder relationships, which in turn contribute to the physical, social, and organizational rebuilding required for communities to recover from a natural disaster such as Hurricane Sandy.

**Cross-Sector Relationships and the Plural Sector**

Cross-sector relationships refer to the relationships between stakeholders with different capabilities within the plural, public, or private sector, as well as to relationships between organizations across the three sectors (Diani, 2015; Harris & Doerfel, 2016; Mintzberg, 2015). Although this study emphasizes stakeholder relationships within the plural sector, empirical evidence was also collected that identifies connections across the different sectors that allows for an assessment of the implications of cross-sector relationships in long-term recovery. Cross-sector relationships enable the organizational sequencing of activities in long-term recovery to unfold. These cross-sector relationships change over time and are organized through multiple forms of communication ranging from face-to-face, individual, and small group meetings to large meetings and town halls, as well as through communication by e-mail, text, and phone (Chewning et al., 2013; Doerfel et al., 2010). Findings did not indicate that social media, videoconferencing, or innovative digital communications infrastructure played a role in the development of cross-sector relationships or in collaborative communication processes. Initiating communication and organizing activities in these relationships are usually the result of needing to solve a problem, make a decision, brief decision makers, exchange

information or resources, or connect impacted residents with recovery resources and support.

**Persistent and emergent stakeholder relationships.** Relationships between networked stakeholders may be persistent; that is, organizations engage and interact with one another on a regular basis, either through existing community relationships or through extended engagement among disaster relief and response organizations that connect with one another across disasters and across communities. Interactions among disaster relief organizations with persistent relationships may not entail regular meetings, collaboration, or information exchange during blue sky periods, but these organizations may have (a) experience with one another based on past interactions at other disaster sites; (b) engaged in collaboration efforts during new disasters in other communities occurring during the long-term recovery period following Hurricane Sandy; (c) membership in the NVOAD, NJVOAD, or other VOADs or COADs; or (d) as regular participants in service efforts by FBOs in communities impacted by disaster or other socioeconomic issues. Organizations with persistent relationships may have either strong or weak ties with one another, but these ties are not necessarily determined by frequency of interaction, similarity of organizations, or the degree of connections among all participants in these networked stakeholder relationships in disaster-impacted communities (Atouba & Shumate, 2015; Doerfel & Taylor, 2004; Schermerhorn, 1975).

**New organizational relationships.** New organizational relationships are created through the organizational partnering of both existing organizations without a previous history of working with one another and new or pop-up organizations created in the aftermath of a disaster such as Hurricane Sandy. Partnerships may be established between

two or more existing organizations, two or more pop-up organizations, or multiples of existing and pop-up organizations. In almost all instances, these are networked relationships in which many-to-many communication and organizing activities take place. Emergent relationships are initiated as a way to solve problems such as the unmet needs of residents or a community, to make available new resources and organizational capacities, share information, provide social support, or give voice to residents struggling with the recovery process. Like persistent relationships, emergent relationships may be based on either strong or weak network ties, with the relationship determined by the degree of interaction organizations have with one another rather than simply the frequency of interaction, similarity of organizations, or degree of connections among networked stakeholders.

The ties that connect partnering organizations in disaster-impacted communities may be a form of engagement, which Doerfel (2018) defined as a type of network tie initiated by a particular social or organizational interaction and that operates within a particular community, organizational, or social context. In long-term recovery, this engagement is triggered by an organizing event such as an LTRG meeting, rebuilding and reconstruction, the unmet needs of residents in disaster-impacted communities, local, state, federal, and nonprofit funding opportunities, private sector assistance, and activities around the provision of social support and spiritual and emotional assistance. These ties are not ties within the strict framework of network theory; rather, they are relationships that trigger community engagement through a series of communication and organizing activities designed to respond to a disruptive event such as a natural disaster.

**Conflict and Collaboration in the Plural Sector**

Different organizational activities created different sources of conflict at different times over the course of long-term recovery from Hurricane Sandy. Case management was a particular source of contention between different organizations and within the LTRGs. Many philanthropic groups provided funding to employ case managers at many different organizations, regardless of the core expertise of those organizations. These funding allocations ran parallel to the master case management contract awarded by the State of New Jersey to Catholic Charities. Multiple funding streams to multiple organizations created some confusion over the management and model of case management services utilized in long-term recovery from Hurricane Sandy. This confusion created conflict not only with existing organizations with core competencies in case management, but also with other organizations providing case management to residents in addition to their core competencies in their particular field of expertise.

There were multiple reasons why the case management processes of long-term recovery created organizational conflict among networked stakeholders. Confusion of the terms, requirements, eligibility, and requirements of federally funded state assistance programs resulted in different interpretations of programs by different agencies and case managers. This confusion resulted in conflicts between agencies over client eligibility for programs at weekly and monthly unmet needs meetings of the LTRG. Frequent changes in programs, deadlines, and eligibility created additional confusion among agencies and stakeholders between 2013 and 2016, which added potential sources of conflict. Compounding these issues were differences in experience levels among the case managers themselves.

Many LTRGs and agencies employed junior case managers who had recently graduated from counseling and social work programs rather than senior case managers who had experience working in the field. While having the credentials and explicit knowledge from their degree programs, many lacked the tacit knowledge of how to navigate complex systems and the many layers of government and multiple municipal structures of New Jersey. In some cases, these junior case managers were the decision makers because their agency was the designated provider for case management services in a particular county. Also, rebuilding and reconstruction created organizational conflict during the post-Sandy recovery process because of the different models of reconstruction and rebuilding used by different nonprofits and widely varying levels of experience with rebuilding and reconstruction in a disaster zone.

It appears that conflicts were resolved by organizations developing expertise as well as by a reduction in the number of networked stakeholders involved in response and recovery in coastal New Jersey over the 5-year period of the study. For example, the OCLTRG developed expertise in case management, state programs such as the RREM, and the NFIP. The New Jersey Organizing Project organized isolated and abandoned residents in bayside towns to advocate for increased funding and extended deadlines. A Future with Hope, helmed by an executive with an engineering background, developed an expertise in construction management and rebuilding. As the NPO Builders Table emerged from the LTRGs, organizations such as the OCLTRG and A Future with Hope joined with housing-focused organizations SBP and the Affordable Housing Alliance in a partnership that divided regions and tasks among them.

## Task Differentiation as Collaborative Communication

By using task differentiation, the NPO Builders Table was able to take on responsibility for rebuilding and recovery in coastal New Jersey even as the networked stakeholders involved in long-term recovery dwindled from 200+ organizations to the four members of the NPO Builders Table and the state agencies administering funding programs. Task differentiation enables interorganizational relationships such as networked stakeholders active in long-term recovery after disaster to act as a single organization with expertise, management, client service, administration and finance distributed among multiple organizations (Doerfel, 2016; Powell, 1990). Task differentiation utilizes communication networks and practices to identify needs, define problems, and find solutions (Koschmann, 2013; Lai, She, & Ye, 2015; Van de Ven & Walker, 1984). Rather than a single organization acting as a primary stakeholder and brokering tasks, networked stakeholders are able to organically connect with each other and with Sandy-impacted communities to engage in joint problem solving around issues of recovery that emerge over time. As more stakeholders exit the long-term recovery process, the networked nature of these relationships makes it easier for roles and tasks to be reconfigured among the remaining stakeholders and problem-solving networks such as the NPO Builders Table to emerge. These informal processes of communication become formalized among a smaller group of networked stakeholders as the nature of the recovery and the needs of residents and communities change over time.

## Communication Breakdown

A sense of abandonment within the community and a lack of listening by regional and national institutions responsible for formal disaster response and recovery may foster

the emergence of hyperlocal organizations in these disaster-impacted communities. In essence, a lack of listening constitutes an institutional failure or failures that become quite visible among individuals and organizations grappling with the impacts of natural disaster. *Lack of listening* may be defined as the reluctance or unwillingness of regional and national agencies to incorporate local knowledge and resource networks into disaster response and recovery activities. Browne's (2015) articulation of long-term recovery problems in post-Katrina St. Bernard Parish, Louisiana, describes this phenomenon as a bureaucratic tin ear: problems articulated over and over again are overlooked, unheard, or even ignored, generating immense frustration among recovering residents and even a sense of abandonment by the larger institutions of recovery. These communication breakdowns make it more likely that impacted residents will turn to similarly impacted neighbors and friends to navigate the multiyear processes of long-term recovery.

## A Networked Stakeholder Model of Long-Term Recovery

Long-term recovery is a set of interrelated communication and organizing processes that are used by individuals, communities, and organizations to jointly solve problems, identify and allocate resources, and rebuild storm-impacted homes and communities. Communication is used not only to coordinate work activities related to recovery and rebuilding, but also to build trust and to talk through the problems of recovery as a way to establish relationships with like-minded partners who view community relationships and service to impacted residents in similar ways. These interrelated activities create relationships among stakeholders over time and "cement" these stakeholder relationships as the stakeholders achieve goals together.

## Long-Term Recovery as Communication and Organizing

Long-term recovery after disaster is a process that unfolds over time. Although the particular parameters of a disaster, response, and recovery are unique to the community or region of impact, we can begin to understand long-term recovery as an organizational sequencing of activities that begins when the immediate danger is over and some impacted physical elements (e.g., roads, power, water) of the impacted community have been restored. Long-term recovery is distinct from emergency response in that it involves a set of organizational relationships that stabilize as organizations interact with one another over time and learn each other's capabilities and capacities. Research Question 5 asks about long-term recovery:

**RQ5:** How do networked stakeholder relationships enact long-term recovery after disaster?

These organizational relationships may be characterized as persistent and emergent relationships. Persistent relationships are connections between disaster response and relief organizations that may come in contact with each other regularly, either as responders to different disasters in different locations at different times or as members of coordinating groups such as the national VOAD, a state VOAD, or a COAD. Particular FBOs may also fill the same organizational tasks across disasters; for example, the Mennonites organized roof repair, and World Renew organized damage assessments and regular volunteer deployments to a particular impacted community.

### Emergent Relationships

Emergent relationships are those relationships that emerge over time as local community organizations are brought into the relief and recovery for their expertise,

capabilities, or capacities, or as new organizations pop up to address unmet needs and serve under resourced or neglected communities (Harris & Doerfel, 2016). Although emergent organizations are defined in terms of this study as those organizations that emerge after a disaster to fill a certain role or meet a certain need, emergent relationships are much broader. Emergent relationships are the connections that stakeholders make with other stakeholders as they jointly solve problems related to long-term recovery (Doerfel, 2018; A. J. Porter, 2013; Rodríguez, Trainor, & Quarantelli, 2006).

Persistent and emergent relationships will stabilize as the long-term recovery process becomes cemented and a new set of networked relationships within an impacted community emerges. This stabilization of stakeholder relationships over time is what differentiates long-term recovery from emergency response and recovery. The interorganizational relationships of long-term recovery are networked stakeholder relationships that become part of cross-sector relationships within the impacted community.

Although persistent relationships in the disaster relief and response sector may imply strong ties in a network sense attributable to frequency of contact or the likeness and similarities between these organizations, persistence refers to ongoing relationships between organizations operating together within a community or organizational sector that may or may not be active at any particular point in time. Ties that are not active are not strong, and organizations that may work together only every two to three years after a disaster may move from strong ties to weak ties to nonactive ties and back again.

Local leaders are often lost in the dust and debris of cleanup and recovery and their voices often overlooked within the years-long process of long-term recovery.

Although disaster relief organizations such as the American Red Cross, the Salvation Army, the Saint Vincent de Paul Society, Catholic Charities, and other organizations associated with the national or state VOAD have a permanent year-round presence and persistent relationships with one another, local community organizations and leaders in small municipalities or neighborhoods often lack these persistent connections to the disaster recovery community. They may initially become overwhelmed by perceived expertise that discounts the community relationships and civic relationships built up over the years in Sandy-impacted communities prior to the storm. A key challenge for stakeholders active in long-term recovery, then, is to develop processes of collaboration and communication that account for the different mix of relationships, expertise, and experience stakeholders bring to the long-term recovery process.

**A Model of Long-Term Recovery Following Hurricanes in the United States**

Long-term recovery following hurricanes in the United States rests upon a foundation of networked stakeholder relationships and collaborative communication. Collaborative communication is a communication practice that brings together multiple stakeholders to solve the problems of long-term recovery (Deetz, 2017; Harris & Doerfel, 2016). Findings from this study in coastal New Jersey after Hurricane Sandy indicate that low- or no-tech communication practices (Chewning et al., 2013; Doerfel & Haseki, 2013; Doerfel et al., 2010) were primarily utilized by stakeholders to connect with one another. These practices involved meetings, face-to-face encounters, e-mail, phone, and sometimes text. Client files were managed in both a database that could be accessed by multiple stakeholders with the right access permissions and in hard copy files. Client service and case management services were a key source of stakeholder conflict. As the

number of stakeholders active on long-term recovery diminished over time, remaining stakeholders coalesced to serve larger geographic regions, began to standardize some practices, and eventually created an NPO Builders Table of the four remaining stakeholders active in the region.

Networked stakeholders represent a mix of organizations active in pre-Sandy civic networks in pre-Sandy coastal New Jersey, organizations that operated to provide emergency response planning at local, county, state, and federal levels, and new or emergent organizations created following the storm to fill in the gaps in recovery and meet specific needs of impacted residents and community. Trust plays an important part in figuring out who to work with in post-storm stakeholder relationships (Tilly, 2005; Vangen & Huxham, 2003). Over multiple years, stakeholders begin to know one another's capabilities and competencies and work more closely with those organizations with which they have similar goals, purpose, and working relationships. Stakeholders begin to fulfill more specifically defined roles and tasks as the networks of recovery become smaller. Task differentiation becomes an important part of the collaborative communication processes that help the multiplicity of stakeholders negotiating the complex terrain of long-term recovery.

Stakeholders are defined by interview participants as a wide range of individuals and organizations active in a community to varying degrees. This definition calls into question the idea of a primary or focal organization responsible for organizing recovery. Instead, a web of relations among very different types of organizations is necessary for long-term recovery after a natural disaster such as Hurricane Sandy.

A networked model of stakeholder relationships addresses issues of long-term recovery, stakeholder relationships, and collaborative communication as an interrelated conceptual framework that is part of the social infrastructure of a community. Social infrastructure is the web of community and organizational relationships that rest upon a foundation of trust, provide access to resources, and serve as the bedrock of the economic and political environment of a community. This study presents three propositions to (a) understand what specifically long-term recovery is and how it differs from emergency response, (b) extend stakeholder theory to include multiple interrelated relationships and (c) collaborative communication practices.

Collaborative communication can be defined as those communication practices such as physical and virtual meetings, face-to-face encounters, phone conversations, e-mails, and texts that enable stakeholders to solve problems together and advance the common goals of a community or stakeholder relationship (Barbour & Gill, 2014; Koschmann et al., 2012; Sprain & Boromisza-Habashi, 2012). The concept of networked stakeholder relationships provides a framework for advancing stakeholder theory as a relational model that collapses traditional distinctions between primary and secondary stakeholders into a web of organizational and community relationships (Harris and Doerfel 2016). Table 11 details the mix of organizations active in long-term recovery over the five year period of the study and their role in the network. This relational model of stakeholder theory may align traditional Anglo-American models of stakeholder relationships with the foundational Nordic models of stakeholder theory, which emphasizes social and organizational embeddedness (Byrkjeflot, 2003; Mische, 2011; Rhenman, 1968; Strand & Freeman, 2015).

**Proposition 1:** Proposition 1 proposes that long-term recovery is a distinct multiyear process of communication and organizing that is separate from emergency response and short-term recovery. Although all three activities may be linked together as part of a phased, continual whole, long-term recovery has its own unique rhythms and timelines that depend upon networked stakeholder relationships. Over time, stakeholders in the long-term recovery of a disaster-impacted community begin to understand each other's capabilities and competencies and the unique needs of the community. Communication and organizing processes of stakeholders active in long-term recovery include meetings, task differentiation, and organizational activities that meet the needs of impacted communities and enable access to resources (Barbour & Gill, 2014; Dean, Gill, & Barbour, 2016; Sprain & Boromisza-Habashi, 2012).

**Proposition 2:** Proposition 2 proposes that stakeholders are networked organizations with joint interests, are socially and organizationally embedded, and collaborate to solve social or environmental problems of mutual concern. Stakeholders active in long-term recovery come together to solve problems related to long-term recovery. Stakeholders may be part of a pre-storm civic network, the FEMA whole community framework, or a local emergency response and recovery plan, and may include new organizations that arise in the postdisaster environment to meet resident or community needs (Harris & Doerfel, 2016). What unites these organizations is participation in the multiyear process of recovery in a disrupted community or region.

**Proposition 3:** Proposition 3 proposes that networked stakeholders use collaborative communication to enact joint problem solving, coordinate activities, differentiate tasks, exchange information, and allocate resources (Aakhus & Bzdak, 2015;

Deetz, 1995, 2017). As defined above, collaborative communication involves meetings, face-to-face encounters, and communication tools that enable stakeholders to solve problems together. In long-term recovery, collaborative communication enables participating stakeholders to learn one another's capabilities and competencies and to differentiate tasks among stakeholders based on these capabilities and competencies (Dean et al., 2016; Koschmann, 2013; Koschmann et al., 2012). Collaborative communication rests upon a foundation of trust and familiarity among organizations active in long-term recovery.

**Advancing Stakeholder Theory Through Relational Models and Collaborative Communication**

A study of networked stakeholders solving problems of long-term recovery provides a framework for advancing stakeholder theory as a relational model in which tangled webs of organizational and community relationships supplant the traditional model of primary and secondary stakeholder relationships found in Anglo-American stakeholder theories (Strand & Freeman, 2015). This framework more concretely aligns stakeholder theory with the foundational Nordic models, which emphasized the social and organizational embeddedness of the communication and organizing processes that generate stakeholder relationships through negotiation, collaboration, and conflict mediation (Byrkjeflot, 2003; Deetz, 1995; Rhenman, 1968). However, while Nordic stakeholder models emphasize a singular flow of interrelationships among multiple organizations and sectors in a given community, region, or nation, findings from this study indicate that rather than just a singular network encompassing all active and

potential stakeholder relationships, multiple stakeholder relationships may exist simultaneously in the same place at the same time (Mische, 2009).

These findings lend support to Deetz's (1992, 1995, 2017) multiple stakeholder model in which collaborative communication practices are used to broker relationships and solve problems of mutual concern to a community. Rather than primary and secondary stakeholders engaged in shared value creation and economic transactions (Aakhus & Bzdak, 2015; Clarkson, 1995; M. E. Porter & Kramer, 2011), what these models suggest are webs of organizations engaged in activities of problem solving, trust building, and resource management over time. Simply put, stakeholders share expertise and knowledge to address problems of mutual concern. These organizing activities are managed in turn through collaborative communication and shape the social infrastructure of a community (D. P. Aldrich, 2012; Diani, 2015; Doerfel, 2018; Taylor & Doerfel, 2011).

This framework places stakeholder theory firmly within relational models of social and organizational interaction (Emirbayer, 1997; Granovetter, 1985; Mische, 2011) and within a framework of "*pluralistic interdependence*" (Deetz, 2017). Relational models of stakeholder theory place communication at the center of social and organizational landscapes. These social and organizational landscapes are mutually constructed over time (Koschmann et al., 2012; Mische, 2008; Mische & Pattison, 2000) and can be shaped and reshaped through the communication practices and organizing activities of networked stakeholders.

Space and time are deeply entwined elements of relational stakeholder theory (Emirbayer, 1997; Gaddis, 2002). Stakeholder relationships take place within a specific

space—a physical community, region, or nation, organizational field, sector, or industry. The space in which networked stakeholder relationships are enacted provides the social and historical context of the problem(s) that need to be solved, for instance, in a community recovering from natural disaster. Complex problems such as long-term recovery after disaster can only be addressed through stakeholder relationships that addresses mutuality and negotiation among partners as the path towards problem solving, trust building, and resource allocation (Deetz, 2017; Diani, 2015). These relationships evolve over time and in response to the specific needs and problems of mutual concern of the stakeholders active in the space.

Partnerships form, evolve, and are discarded as needs change. The dynamics of this partnering and the networked relationships they generate, in turn, shape the historical and social context in which communication and organizing take place. At the community level, these relationships generate the social infrastructure that contributes to the ability of the community to solve problems of mutual concern and address resource allocation issues. Social infrastructure, like social structure, is not static; it is generated through the communication practices of partnering organizations and the web of relationships in which the partnering organizations engage (Diani, 2015; Doerfel & Taylor, 2004; Taylor & Doerfel, 2011).

Relational stakeholder theory can be defined as a dynamic set of partnerships among organizations active in a shared space solving problems of mutual concern. Stakeholders solve these problems of mutual concern through communication practices that enable negotiation, trust building, resource allocation, and conflict management. These communication practices can consist of multiple communication tools and

channels, but in this study of long-term recovery, networked stakeholders primarily used low-tech communication practices such as meetings and face-to-face encounters.

**Building a Theory of Collaborative Communication**

A theory of collaborative communication takes into account the entanglement of social, economic, and environmental issues and the impact of this entanglement on civil society (Deetz, 1992, 2017; Strand & Freeman, 2015). These entangled issues require an organizational response in which the capabilities, competencies, and expertise of multiple organizations are used to collectively solve problems impacting the community or communities of which they are a part. Complex problems such as long-term recovery from disaster sometimes require organizations from outside the community to provide additional expertise and resources. New organizations may also emerge to meet unmet needs, address overlooked problems, or serve underserved populations (Drabek & McEntire, 2003; Harris, Carestia, & Fedorova, 2017; Harris & Doerfel, 2016). These networked stakeholder relationships rest upon a foundation of communication practices and organizing activities that enable networked stakeholders to collectively manage conflict and negotiate with one another. Figure 8 details the communication and organizing processes of long-term recovery as a connected path of collaborative communication, networked relationships, and long-term recovery activities. Ultimately, collaborative communication requires each networked stakeholder to take responsibility for the health of organizational partnerships and communication practices.

At a fundamental level, communication practices provide the organizational forms and communication tools in which language and social interaction are created in a networked stakeholder relationship. Formal and informal interactions among

organizational leaders create the networked relationships crucial for solving complex problems of mutual concern (Aakhus & Laureij, 2012; Barbour & Gill, 2014; Mische, 2009). Ultimately, collaborative communication theories account for (a) the complexity of the social problem, (b) the multiple stakeholders active in a community, (c) conflicting goals, (d) inadequate or unfairly distributed resources, (e) emergent organizations and practices, (f) outside expertise, and (g) trust.

Networked stakeholder relationships and collaborative communication are mutually dependent. They provide a path along which to navigate webs of community relationships and increasingly complex social, economic, and environmental problems. While traditional Anglo-American stakeholder theory emphasizes the survivability of a firm as the primary concern, relational stakeholder theory places stakeholder relationships within the wider context of civil society (Mische, 2009; Mische & Pattison, 2000). Drawing from both Nordic and natural resources management approaches to stakeholder theory, relational stakeholder theory emphasizes networked relationships that change over time and communication practices that enable organizations to sequence tasks temporally, allocate tasks among the different stakeholders active in the community, and collectively solve problems. It is this emphasis on collective problem solving through collaboration and negotiation that defines relational stakeholder theory and collaborative communication as the key communication and organizing processes that make long-term recovery after disaster possible.

# CHAPTER 10

# POLICY IMPLICATIONS

Findings from this study support previous calls by analysts and practicing professionals for more attention to be paid to the multiyear process of long-term recovery following the emergency response phase of a disaster (GAO, 2016; Rubin, 1985, 2009). This study provides empirical support for an organizational landscape of recovery and a sequencing of organizational activities that provides a framework for understanding how long-term recovery unfolds over time (Doerfel et al., 2013; Doerfel et al., 2010; Harris et al., 2017; Harris & Doerfel, 2016). In practice, traditional models of response and recovery emphasize the role of established disaster response organizations and persistent relationships among these organizations. The NVOAD, increases in the number of FBOs active in response and recovery, the FEMA whole community model, FEMA national response and recovery models, the National Incident Management System (NIMS), and congressionally chartered disaster relief organizations like the American Red Cross (the only federally chartered U.S. disaster relief organization) all tend to frame their practices around the notion that existing disaster relief and recovery organizations are the primary stakeholders with the expertise and organizational capacity to deliver relief and enact recovery (Anderson, 2002; Bigley & Roberts, 2001; DHS, 2011, 2013; Kosar, 2006). However, the reality is that these organizations often lack the capacity, local knowledge, and sometimes even the expertise to effectuate response and recovery in a timely and effective manner.

Community, emergent, and grassroots organizations play a larger role in long-term recovery then they are often given credit for doing (Drabek & McEntire, 2003;

Majchrzak et al., 2007; Stallings & Quarantelli, 1985). Of the four organizations still active in long-term recovery in coastal New Jersey as of December 2017 (5 years after Hurricane Sandy), one was a local housing nonprofit with more than 25 years of experiences in the region, the second was a faith-based disaster recovery organization created after Hurricane Sandy in 2012 by the local diocese, the third was an LTRG with funding received from local foundations and the local chapter of the United Way, and the fourth was a national disaster recovery organization that emphasized long-term rebuilding and reconstruction in disaster-impacted communities. From 2012 to 2014, local organizations such as Sea Bright Rising, Oceanport Cares, Rebuilding Union Beach (a joint venture between the municipal government and Burners Without Borders) in New Jersey, Guyon Rescue, Yellowboots, and Midland Beach Hub in Staten Island connected impacted residents with community, state, and federal resources. Networked organizations such as OccupySandy also played a role, particularly in Staten Island, in helping to organize local resources and local organizations.

Long-term recovery is about communication, coordination, and collaboration. Collaboration, however, does not mean conflict-free agreement over key issues and resource allocation. Negotiation and consensus building are critical parts of developing effective stakeholder relationships in disaster-impacted communities (Deetz, 2017), and an understanding of the role of not only community organizations, but also of hyperlocal and emergent organizations is important for the emergence of effective stakeholder networks that incorporate local sources of assistance, food banks, nonprofits utilizing foundation funding, and state and federal grant and loan programs for impacted residents within a framework that incorporates and values local knowledge, customs, and culture

(Browne, 2015; Sprain & Boromisza-Habashi, 2012). The most effective communication interventions may be at the network level, where stakeholder relationships can be redesigned to ensure that community organizations and knowledge are incorporated into long-term recovery processes (Aakhus & Bzdak, 2015; Dean et al., 2016; Harris & Doerfel, 2016).

By developing a timeline of recovery that associates disaster recovery organizations and organizational activities as a sequence of communication and organizing processes that exists over time, funding decisions can be made that account for the reality of recovery at the community level, instead of philanthropic best practices that emphasize rapid allocation of donor monies. Rather than replicating case management services across multiple organizations, as occurred with foundation funding after Hurricane Sandy in coastal New Jersey, funds might be better allocated to hyperlocal and community organizations that are able to broker relationships between impacted neighborhoods and communities and the organizations with the requisite resources, capacity, and expertise to meet neighborhood and community needs (Chandrasekhar et al., 2014; Harris & Doerfel, 2016; E. O'Neill, 2014).

## Stakeholder Relationships in Long-Term Recovery Policy: Implications for the FEMA Whole Community Model

The FEMA national response and national recovery plans both emphasize the whole community model, which calls for a community-wide response to disaster that incorporates all organizations within an impacted community or region (DHS, 2011, 2013; Moynihan, 2009). These response and recovery frameworks are organized around local/state/federal cooperation and the premise that all disasters are local. In fact, federal

agencies and resources must be invited into a state via a governor's declaration of a state of emergency and request for assistance. In practice, however, permanent disaster recovery organizations with persistent relationships with one another often jockey for the lead and try to override local organizational infrastructures coordinating response and recovery.

One potential solution to this issue is to incorporate stakeholder engagement as a section within the national response and recovery frameworks (DHS, 2008, 2011, 2013) and to emphasize the role and importance of multilevel stakeholder networks in long-term recovery. Although understood in theory, in practice, neighborhood and community organizations are often overlooked as key and sometimes central parts of the stakeholder network in disaster-impacted communities and regions. The whole community framework for disaster recovery suggested by FEMA (2011) is merely prescriptive; that is, it emerged after a year-long dialogue over best practices in communities across the United States, and although it has been incorporated into Presidential Policy Directive 3 on national preparedness, which provided the organizing framework for the national planning frameworks and the national preparedness goal, specifics related to training, organizational learning, and implementation were not covered.

## Building Stakeholder Relations and Knowledge into a National Disaster Recovery Policy

### Community Stakeholder Networks

Community stakeholder networks should be included as part of the designation of emergency support and response teams within an amended Robert T. Stafford Disaster Relief and Emergency Assistance Act (The Stafford Act). An amended act would expand

Section 3.03, which specifies the American Red Cross, Salvation Army, and Mennonite Disaster Services as emergency response organizations in the legislation to include a networked stakeholder model that would identify emergent, existing, and planned emergency response organizations as critical elements of emergency response and recovery. The precise organizations would be unnamed because they will vary by region and disaster, but including a typology of organizations active in emergency response and recovery will finally recognize the emergent characteristics of disaster recovery in a formal manner (Doerfel, 2018; Harris et al., 2017). Emergency operations plans developed by local, county, or state organizations should be required to identify and list key community organizations and foundations that provide social services, housing and energy assistance, medical, mental health, and wellness services, youth and recreational activities, child protection, and services to senior citizens as part of an appendix to the plan. Although the national and state VOADs typically include these organizations in their ranks as members, requiring a documented appendix at different levels of local, state, and county government would make actively visible key community stakeholders. Emergency operations plans should be required to be updated at regular intervals, such as every 12, 24, or 36 months to ensure knowledge of the community stakeholder network is up to date.

Expanding the list of federally chartered disaster relief organizations beyond the American Red Cross is an overdue and much-needed revision to U.S. disaster response and recovery plans. Chartered in 1900 and renewed in 2006, the American Red Cross is the only disaster relief organization congressionally charted in the United States (Kosar, 2006). Although the national and state VOADs take on increased responsibilities for

coordination among disaster relief organizations, education, and even specific services such as case management (Ambinder et al., 2013; GAO, 2016), they are not accorded the same level of respect and responsibility that the American Red Cross is in national disaster planning (DHS, 2013; Kosar, 2006). Elevation of the NVOAD to federally chartered status would build a more inclusive framework in disaster recovery by bringing a more diverse array of organizations into the federal disaster planning framework. SBP, with more than 10 years of experience in rebuilding and reconstruction, should also become a federally chartered disaster relief organization with responsibility for multiyear residential rebuilding and reconstruction processes in low-income communities.

Stakeholder education should be addressed in the NIMS, the national response plan, and the national recovery framework (DHS, 2011, 2013; GAO, 2016). Training modules in the NIMS should be developed that address stakeholder models and the communication practices needed to design, build, and maintain community-level stakeholder relationships that can be rapidly expanded to include regional and national partners. Stakeholder education should emphasize the multi-stakeholder model, the division of tasks and labor represented within a community stakeholder network, the communication practices that are most effective in stakeholder relationship building, and techniques such as stakeholder mapping that can be employed in the field (Aakhus & Bzdak, 2015; Crane et al., 2004; Deetz, 1995, 2017; Harris & Doerfel, 2016; Prell et al., 2009). By emphasizing the emergence of phased, sequenced organizational activities throughout the long-term recovery process that are both planned and emergent, the role, expertise, and capacity of local organizations can be made visible to emergency managers and recovery professionals.

Stakeholder mapping exercises should be incorporated into national disaster preparedness, disaster response, and disaster recovery frameworks and scheduled and conducted at regular intervals. Community stakeholder networks are not static and should not be treated as such. Disruption such as those from a natural disaster can break and reconfigure these networks, with certain organizations exiting the network and others entering at different points in time (Doerfel et al., 2010; Doerfel & Taylor, 2004, 2017; Taylor & Doerfel, 2011). This disruption was particularly evident during the multiyear long-term recovery process where stakeholder networks in coastal New Jersey were found to winnow from 178 organizations in December 2013 to just four organizations by December 2017. In 2018, there were just two organizations active, both in rebuilding and reconstruction activities.

**Disaster Recovery and Public Land-Grant Universities**

Land-grant universities (Peters et al., 2003; see also social impact article on universities posted by Shumate, 2012) can play an important role in disaster recovery, particularly in helping to build effective processes of long-term recovery. Although faculty, schools, centers, and institutes from across Rutgers were active in Sandy response, recovery, and analysis across New Jersey, there was little to no coordination across the university, and the university was not formally designated as a key partner with either the New Jersey Governor's Office of Recovery or other public agencies. This lack of coordination and centralization of data and knowledge was evident in my interaction with the Rutgers data librarian who serves on the state data council. Neither Rutgers nor the state data council had any centralized and/or curated data, reports, or records of the impact of Hurricane Sandy and the effectiveness of recovery activities in

New Jersey to date. This lack of centralized data is a major gap in our institutional knowledge and contributes not only to the sense of isolation and abandonment found in some impacted areas, but also supports the notion of hidden pockets of unrecovered residents and communities existing in a coastal New Jersey region that appears recovered from a distance.

Land-grant universities are higher education institutions responsible for providing applied knowledge throughout the states in which they are located. Most land-grant institutions operate county extension services in which employees of the university, often tenured, provide programs, workshops, and technical assistance within their county of operation. Land-grant institutions are public universities, with the exception of Cornell University, an Ivy League institution with a public college that houses the land-grant components. Land-grant colleges and universities operate in 50 fifty states and could be utilized to support long-term recovery efforts and be supported by state and federal funding. In addition to serving as knowledge management hubs for data, information, and knowledge on federally designated disasters within their states, land-grant institutions could provide technical support to the public agencies and nonprofits active in long-term recovery. Land-grant institutions could support newly designated stakeholder engagement and stakeholder mapping functions incorporated in either the national disaster response and recovery frameworks or within an amended Stafford Act that calls explicit attention to long-term recovery as separate functions of disaster management.

# CHAPTER 11

# FINAL REMARKS

## Limitations of the Research

As a comprehensive multiyear study of long-term recovery after disaster, this project generated large amounts of data that needed to be managed so that previous findings could be used to inform subsequent interviews and analysis. Understanding which findings were most salient to developing the organizational landscape of recovery and the communication and organizing processes important for generating networked stakeholder relationships was a key challenge that existed throughout the study. It was important to separate out the anecdotal information from the information that actually pointed to a timeline, a process, or a network of recovery that would be important for understanding long-term recovery as a distinct process of disaster response and recovery, the communication and organizing processes in which stakeholders engaged, or the networked stakeholder relationships that organizations generated during their multiyear engagement in long-term recovery in New Jersey. One of the key challenges of the study was to ensure that my own perceptions or those of my volunteer colleagues did not overly shape the framework I was developing during my multiyear immersion in this project.

As a study that "began with a hunch" and included my immersion in the field as a resident and community leader, there is the always the possibility of personal bias and of limitations due to lack of personal proximity and access to other communities and organizations grappling with recovery from disaster. The use of multiple sources of information that ranged across academic, nonprofit, and government reports, organizational records, and media sources served to validate what I was seeing through

participant and ethnographic observation. Informants in sectors and organizations that were not a primary focus of this study were useful in determining the face validity of my thinking and the emerging themes and processes I was beginning to conceptualize.

This study emphasizes plural sector organizations because they were more responsive to requests for engagement throughout the course of the study. A major effort was made to gather additional information on municipal perspectives through interviews with municipal leaders and access to documents, reports, and data directly from the municipalities themselves. This limitation was overcome by focusing on the seven municipalities where access was given, informal conversations with a county administrator in the extreme southern part of the region to fact-check my thinking, and accessing relevant municipal data online. A similar effort was made to gain different perspectives from unions active in the recovery, and from the Portuguese small-business community in the region. Many Portuguese small-business owners in coastal New Jersey are contractors who own a variety of building trades businesses engaged in residential repair and reconstruction. Neither effort was successful.

Entering the field via a sector such as the plural sector could shape findings because other sectors may have a different set of priorities or consider another set of goals and tasks as important. Public sector organizations may be focused on the mechanics of providing financial assistance and protecting against fraud, while national and multinational private sector organizations may be focused on supply chain relationships. However, because plural sector organizations are those organizations focused most directly on aiding impacted individuals and families, understanding their practices, relationships, and the timelines of plural sector participation in recovery efforts

may provide the best window into the processes, timelines, networks, and organizational landscape of recovery.

One specific issue that needs to be included in this type of research is the point of entry. Researchers entering the field through an institution such as a national disaster response and recovery organization or a state or federal agency may have a different perspective on the shape of the stakeholder relationships enacted in the disaster-impacted community. Their focus may be on the institutional relationships of established national- or regional-level organizations, rather than the mix of organizations active in long-term recovery processes in a particular community or region. They may, in fact, model the stakeholder relationships according to the traditional model of primary and secondary stakeholders, rather than as a web of interrelated organizations, expertise, and tasks. This difference is why entering at the community level when conducting disaster research can be an important and powerful method. By entering at the community level, the researcher may witness and uncover a different set of communication patterns and organizing relationships than those uncovered at an institutional level of preexisting relationships among professional disaster recovery organizations. By entering at the community level, this study was able to identify a mix of emergent, existing, and disaster recovery stakeholders active in the recovery.

Another limitation of the project was access and proximity. The study leans heavily upon data collected in Monmouth and Ocean counties. The reasons are threefold. The organizations with which I engaged as an organizational and community leader were primarily located in these counties. Both counties were geographically proximate to my own location and contained a mix of beachside and bayside damage that appeared to be

similar to the mix in other counties. Finally, Monmouth and Ocean counties were two of the areas most heavily damaged by Hurricane Sandy. For these reasons, I chose not to attempt to make county-by-county comparisons of either long-term recovery processes or networked stakeholder relationships.

This is an area where sequential interviewing paid off. As I expanded the range of organizational leaders I interviewed or assessed through organizational documents and media reports, similar themes around processes, conflict over resource allocation, case management services, and organizational capabilities and competencies were expressed across different organizations and counties. This similarity even extended to interviews and encounters I had with LTRGs in northern New Jersey who were operating in a region that was not part of the study. Sequential interviewing enabled me to not only confirm what I was seeing, hearing, and reading, but also to dig deeper on subsequent interviews and develop a set of themes and concepts that helped narrow and focus the organizational documents, reports, and media reporting utilized to develop the organizational processes and landscapes that emerged from the empirical evidence amassed for this study.

The most obvious limitation to this study is the lack of interviews from institutional sources such as the American Red Cross. I approached regional leaders at the American Red Cross early in the study (2013 and 2014) and was not able to make headway in connecting with the leadership. After about late 2014, there was constant turnover in the regional leadership and some sort of reorganization at the regional chapter, according to the executive director of a prominent community organization with whom I had worked and had interviewed. The American Red Cross was also exiting disaster recovery efforts at that time and reverting to emergency response and disaster

planning, according to other interview subjects and informants. At that time, the community dimensions of this research were becoming clear, and I placed an emphasis on conducting research among organizations active in recovery on the ground in the coastal New Jersey region I identified. This narrowed focus, of course, precluded pursuit of a research approach centered around organizations affiliated with NJVOAD or of national-level disaster relief and recovery organizations active in coastal New Jersey, either of which could have constituted a study in their own right.

The “multiple municipal madness” (Karcher, 1998, p. 1) of New Jersey is a major limitation that makes community-by-community comparisons of the effectiveness of the recovery and the measurement of community social capital difficult, at best. The elusiveness of data on recovery in New Jersey makes clear the need for better processes and mechanisms of data collection and access for analysis of the processes and outcomes of long-term recovery after disaster in New Jersey. The key limitation is the lack of centralization of data related to long-term recovery in New Jersey and the control that each municipality has over its processes and data. Census data make it difficult to do community-by-community comparisons because many communities comprise fewer than 8,000 people and block data are nonexistent or often cross community boundaries. The lack of data makes it difficult to correlate hidden pockets of unrecovered individuals and neighborhoods with demographic information that could shed light on issues of race and class in the community. As the most densely populated state in the country, understanding the communication and organizing processes of long-term recovery in coastal New Jersey provides insight into disaster response and recovery in large metropolitan areas. Unlike other large metropolitan areas impacted by previous

hurricanes, however, the New Jersey metropolitan area is not a series of neighborhoods within a single metropolitan area. Instead, New Jersey comprises autonomous municipalities and school districts, each with their own political and cultural dynamics,

Findings related to the elusive data of recovery following Hurricane Sandy in coastal New Jersey may also help us to better understand processes of coastal resilience in New Jersey in a time of complex environmental change. Many of the issues that bedevil comprehensive post-Sandy research on long-term recovery in New Jersey also appear to impact disaster mitigation and coastal planning efforts. Despite passage of the Coastal Areas Facilities Review Act, towns still have leeway over the approval of construction and land use in environmentally hazardous areas. Continued rebuilding in areas prone to regular tidal flooding and subject to continual beach erosion and potential wave damage substantially increase the likelihood of damage to social and physical infrastructure after hurricanes in coastal New Jersey. The understanding of fragmented data on recovery effectiveness generated from this study could be used as an additional case for proposals for regional coastal planning initiatives in New Jersey.

Although an argument could be made that Hurricane Sandy is a suburban, White middle-class disaster and involves recovery in a heavily suburbanized state compared to other disasters such as hurricanes Katrina and Maria, the data and findings do show the importance of understanding a disaster in its social and historical context. Disasters differ from one another and, although there are phases, patterns, and rhythms to recovery, these phases, patterns, and rhythms are all enacted differently at different times and places, depending on the nature of the disaster, the underlying community dynamics, and the historical context in which disaster takes place. The type and mix of organizations active

in long-term recovery may be different based on region or the severity of the storm impact and the commitment of stakeholders to relief and recovery in those regions. This commitment to long-term recovery in specific communities or regions may also vary by intensity across the public, private, and plural sectors, with different sectors having different levels of commitments and focus due to ideology, class, race, or ethnicity. Language barriers may also play a role in how networked stakeholder relationships are formed. This study attempted to consider these issues through examination of literature related to Hurricane Katrina and despite, the lack of empirical evidence in this particular disaster (Hurricane Sandy) in this particular region (coastal New Jersey), issues relating to race, class, or language informed the study.

## Future Directions: Building an Agenda for Communication-Centered Research on Long-Term Recovery from Disaster

This study suggests four paths of future research organized around (a) collaborative communication, (b) networked stakeholder models, (c) social infrastructure and community resilience, and (d) long-term recovery after disaster. Some potential studies could cross multiple paths. For instance, a focused multiyear study of an LTRG active in a disaster-impacted community could be conducted as an in-depth project looking at specific communication practices utilized by disaster response and recovery professionals in long-term recovery, provide a case-based study of long-term recovery in a particular location, and analyze the role of collaborative governance in long-term recovery.

LTRGs are essentially networked stakeholder relationships and a narrow, yet deep dive into their organization, operations, and coordination may yield new insights into

how these organizations negotiate conflict and advance their purpose while jointly solving problems of long-term recovery in a specific community. Challenges to such a study would include obtaining access to case management, construction management, and unmet needs committees where sensitive, confidential information about impacted residents is shared. Access would involve sign-offs from multiple organizations as part of the approval process of an Institutional Review Board. Issues concerning vulnerable populations might also have to be addressed in the approval process.

Studying national disaster relief and recovery organizations affiliated with the NVOAD or FEMA using institutional theory would provide a contrast to this community-level study of networked community relationships. The development, distribution, and replication of disaster recovery practices and norms across organizations, disasters, and regions would provide insight into how the institutionalized practices of disaster recovery comport with community needs. Such a study may also provide some insight into the communication and organizational breakdowns during catastrophic or outlier disasters such as hurricanes Maria and Harvey in Puerto Rico. Recently, Ansell and Gash (2018) presented a framework of collaborative governance that is centered around organizations with specific expertise and are active in particular policy domains (pp. 16–19). These "collaborative platforms" provide resources as well as expertise and may provide a mode for scaling collaboration and governance needs in complex policy domains. Applying the collaborative governance framework to disaster recovery would be a fruitful way to scale the study of networked stakeholders from community to institutional levels of collaboration and governance.

Networked approaches to the study of both stakeholders and long-term recovery is an important area of future research for which this study provides a platform. Networked approaches to analysis move stakeholder theory in a relational direction. Findings from this study suggest that a survey of organizations affiliated with the NVOAD or state VOAD(s) asking them to define the term “stakeholder” would expand the scope of the finding of this study on practical definitions of stakeholders in the field. Developing additional empirical evidence from additional cases at the community level on the type and mix of organizations active in long-term recovery is an additional area of inquiry suggested by this study. Such a study would provide an opportunity to formalize networked stakeholder relationships as a type of civic network in which roles and relationships in the network can be assessed as prestorm and poststorm civic networks. A formal definition of a stakeholder network as a civic network collaboratively solving problems of mutual concern would emerge from such a study. This long-term study of long-term recovery across communities may complement Doerfel’s (2017) framework of engaged ties through the development of a model of long-term recovery that identifies stakeholder activation as the triggering of a specific type of network tie (relationship) at certain inflection points during long-term recovery.

Finally, this study and the research paths described here provide a foundation for the development of a model of social infrastructure that operates as a parallel construct to physical infrastructure in communities facing complex environmental change. Such a model of social infrastructure, combined with existing measures of community resilience, could become a core part of disaster planning and mitigation. Mapping the social infrastructure of a community (the web of stakeholder relations) would provide some

indication as to the ability of the community to respond and recover and the anticipated need for plural and public sector resources.

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# TABLES

Table 1: Comparative Evaluation Criteria for Qualitative Inquiry, Reflexive Methodology, and Reflexive Fieldwork

| "Big tent" qualitative quality criteria[a] | Reflexive methodology[b] | Reflexive fieldwork |
|---|---|---|
| Worthy topic | Systematics and techniques in research procedures | Importance of topic |
| Rich rigor | Clarification of primacy of interpretation | Field-based in community or organization |
| Sincerity | Awareness of political-ideological context of research | Social and history context of research site and researcher is made clear |
| Credibility | Reflection in relation to problem of representation and authority | Multi-method, multi-theoretical, multi-sourced; including qualitative network analysis |
| Resonance | Theoretical | Participatory-action research/engaged scholarship |
| Significant contribution | Multiple levels of interpretation and analysis | Multiple levels of interpretation and analysis |
| Ethical | | Data, analysis, and interpretation (findings) are fluid and integrated |
| Meaningful coherence | | Advances theoretical understanding of communication and organization processes |

| "Big tent" qualitative quality criteria[a] | Reflexive methodology[b] | Reflexive fieldwork |
|---|---|---|
| | | Contributes to understanding of networked stakeholder relationships |
| | | Provides important policy contributions |

*Note.* [a]Adapted from "Qualitative Quality: Eight 'Big-Tent' Criteria for Excellent Qualitative Research," by S. J. Tracy, 2010, *Qualitative Inquiry, 16,* p. 840. Copyright 2010 by Sage.

[b]Adapted from *Reflexive Methodology: New Vistas for Qualitative Research,* by M. Alvesson and K. Sköldberg, 2009, pp. 10–12. Copyright 2009 by Sage.

Table 2. Levels of Interpretation

| Aspect/level | Focus |
|---|---|
| Interaction with empirical material [Level 1] | Accounts in interviews, observations of situations, and other empirical materials |
| Interpretation [Level 2] | Underlying meanings |
| Critical interpretation [Level 3] | Ideology, power, and social reproduction |
| Reflection on text production and language use [Level 4] | Own text [researcher], claims to authority, selectivity of the voices represented in the text |

*Note.* Adapted from *Reflexive Methodology: New Vistas for Qualitative Research,* by M. Alvesson and K. Sköldberg, 2009, p. 273. Copyright 2009 by Sage.

Table 3. Interpreting Post-Sandy Long-Term Recovery

| Aspect/level | Focus/process |
|---|---|
| Interaction with empirical material (Level 1) | Transcripts, documents, analytic memos, coding, organizational relationships, qualitative network analysis |
| Interpretation (Level 2) | Abductive analysis, source criticism, narrative time, network analysis |
| Critical interpretation (Level 3) | Relational agency, practices of collaboration and communication<br>Conflicts between grassroots, communities, and institutions; hyperlocal versus institutional tensions; challenges to existing stakeholder theory |
| Reflection on text production and language use (Level 4) | Reflexive fieldwork (see Methodology chapter), geographic bounding of the study, role of sequential interviewing, organizational leadership voices, established nonprofit voices, scarcity of data on grassroots organizations in models |

*Note.* Adapted from *Reflexive Methodology: New Vistas for Qualitative Research,* by M. Alvesson and K. Sköldberg, 2009, p. 273. Copyright 2009 by Sage.

Table 4. In Their Own Words: Stakeholder Definitions from the Field

| Stakeholder definition | Source |
|---|---|
| "Well, I think that clearly the homeowners are stakeholders. Communities and townships are stakeholders. And this is getting somewhat broad and philosophical, but then because all of us live in these communities, we're all stakeholders. And so, I think that's more at an individual/corporate/social obligation to each other. And then I guess if you think about nonprofits who stakeholders are, by merit of – grantors who raise large amounts of money under the pretense of "it's going to Sandy survivors," they're a stakeholder now because they've raised that money. And then we as a grantee who have received that money, we become stakeholders because we've taken on the fiduciary responsibility to get that money to individual homeowners." | FBO Executive Director 1 |
| "I'm going to tell you, everybody, the residents, obviously, for living here. The business owners, because this is their livelihood. I would say the state, because tourism is one of the largest industries we have. And the amount of sales tax that we send just from the sale of alcohol in our bars is significant. But we provide an affordable place for middle-class families from throughout New Jersey to come and enjoy a safe day at the beach." | Mayor 1—Beach Town |
| "Year-round residents, summer residents, business owners. Those who pay taxes." | Mayor 2—Beach Town |
| "Yeah, member-led grassroots organization. That's what we are—and that's how you build the leverage you need to win some of this stuff. | Grassroots Organizer 2 |
| "Yeah. So, I mean, it's really good to know your—it's really important to know your—especially your OEM directors, to know your community and know what groups are active in your | Municipal Administrator 2—Bay Town |

| Stakeholder definition | Source |
|---|---|
| community, because those are the volunteer groups that you're really going to rely upon, because they do know your community better than anybody else. When we brought the Red Cross in, I was not impressed." | |
| "The not-for-profits, so I—the mayor's sister, you know, did a lot. And I just don't remember names. I know there were numerous groups that we would refer people to that would call. I just don't remember what the names of the groups were. But they were stand-out—mostly, the mayor's attitude was if someone needed help, it was our job to find someone to give them that help or get them the ability to find that help. And that was the mayor's adamant position. So, I mean, his sister was the one I would send people to. And then there were several other groups that stepped forward to raise funds for people in time. I mean, we had a lot of that." | Municipal Administrator 1—Bay Town |

Table 5. Example: Elusive Data on Direct Beneficiaries of New Jersey Temporary Housing Relief Program

| NJ Department of Human Services[a] | NJVOAD[b] |
|---|---|
| "New Jersey's temporary relief program to assist individuals and families experiencing a Sandy related housing crisis—SHRAP—had an overall budget of $109,393,444 to provide rental or other assistance up to $15,000 for eligible New Jersey households. As of 7/31/2016, $104,072,860.17 has been disbursed." | "Data could not be found to indicate the number of households that received SHRAP benefits, but the disbursement figure above is final as the program has closed." |

*Note.* [a]New Jersey Department of Human Services, 2016, as cited in *New Jersey Non-Profit Long-Term Recovery Assessment: Hurricane Sandy Recovery*, by New Jersey Voluntary Organizations Active in Disaster, 2016, p. 11.

[b]*New Jersey Non-Profit Long-Term Recovery Assessment: Hurricane Sandy Recovery*, by New Jersey Voluntary Organizations Active in Disaster, 2016, p. 11.

Table 6. Process Code Examples from Transcripts

| Municipal leaders | Nonprofit leaders |
|---|---|
| Restoring municipal services | Balancing speed, efficacy, and security |
| Reviewing contracts | Getting into town after Sandy |
| Understanding cost | Distributing dollars |
| Understanding capabilities | Distributing resources |
| Governing on the go | Stepping on toes |
| Taking action | |
| Structuring organizational interactions | Structuring organizational interactions |
| Coordinating contractors | Coordinating agencies and organizations |
| Creating recovery organizations | Wrestling with case management |
| | Conflicting service and client models |
| | Getting to done |
| Elevating homes | Slowing recovery |
| Wrestling with flood maps | Wrestling with flood insurance |
| Using the storm to improve building codes | Wrestling with insurance |
| | Wrestling with the New Jersey Residential, Reconstruction, Elevation, and Mitigation (RREM) program |
| Using statute and code to remove abandoned properties | Pinning down answers |
| | Losing people and tax dollars |
| Changing demographics | Morphing into something else |
| Changing real estate landscape | Building a builders' table |

Table 7. Timeline of Post-Hurricane Sandy Recovery in Coastal New Jersey, 2012–2017

| Process of recovery | Selected organizations and activities | Year | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mobilization | Emergency response | x | | | | | |
| | Short-term recovery | x | | | | | |
| State and federal funding programs | Congressional amortization of disaster funding | | x | | | | |
| | HUD CDBG grants | | x | x | x | x | |
| | Pathways ABC | | x | | | | |
| | RREM | | x | x | x | x | x |
| | SHRAP | | x | x | | | |
| Non-profit funding | Robin Hood Foundation | x | x | | | | |
| | Hurricane Sandy NJ Relief Fund | x | x | x | | | |
| | American Red Cross | x | x | | | | |
| | Geraldine R. Dodge Foundation | | x | x | x | | |
| | United Way (multiple NJ chapters) | x | x | x | x | x | x |
| | NJ Natural Gas Foundation | x | x | x | x | x | x |
| | OceanFirst Foundation | x | x | x | x | x | x |
| | Save the Jersey Shore Foundation | x | x | | | | |
| Development of networked | Long-term recovery group formation | x (3) | x (9) | | | | |

| Process of recovery | Selected organizations and activities | Year | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| stakeholder relationships | Long-term recovery group operations | x (3) | x (12) | x (12) | x (?) | x (3) | x (1) |
| | NVOAD | x | x | x | x | x | x |
| | United Way (multiple chapters) | x | x | x | x | x | x |
| | Community Food Bank of New Jersey | x | x | x | x | x | x |
| | Monmouth COAD formation and operation | | | | | x | x |
| Emergent organizing (neighborhood and community response, recovery, and rebuilding) | Sea Bright Rising | x | x | x | | | |
| | Oceanport Cares | x | x | x | x | x | x |
| | Rebuild Union Beach | | x | x | | | |
| | Jersey Shore Gives Back | x | x | x | x | x | x |
| Regional organizing (neighborhood and community rebuilding) | Affordable Housing Alliance | | x | x | x | x | x |
| | Future with Hope | | x | x | x | x | x |
| | Catholic Charities | | x | x | x | | |
| | Saint Vincent DePaul Society | | x | x | x | | |
| | Coastal Habitat for Humanity | | x | x | x | | |
| | Lutheran Social Ministries of New Jersey | | x | x | x | | |
| | Presbytery of Monmouth | | x | x | x | | |

| Process of recovery | Selected organizations and activities | Year | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| National organizing (emergency response and long-term recovery) | American Red Cross | x | x | x | | | |
| | Salvation Army | x | x | x | x | x | |
| | Lutheran Disaster Assistance | | x | x | x | | |
| | Presbyterian Disaster Assistance | | x | x | x | | |
| | Episcopal Disaster Relief | | x | x | x | x | x |
| | SBP | | x | x | x | x | x |
| Delivery of mental health and family services | Mental Health Association of Monmouth County | | x | x | x | | |
| | Ocean Mental Health Services | | x | x | x | | |
| | Visiting Nurses Association of Central NJ | x | x | x | x | | |
| | The Children's Home Society of NJ | | x | x | | | |
| | The Community YMCA | | x | x | x | | |
| | 180 Turning Lives Around | | x | x | x | | |

Table 8. Timeline of Organizational Response by Individual Needs in Post-Hurricane Sandy Recovery in Central New Jersey, 2012–2017

| Shelter in place (Day 0, Day 1) | Emergency response (0–10 days) | Short-term recovery (11 days–3 months) | Long-term recovery (3 months–4 years) |
|---|---|---|---|
| Rescues | Safety and security | Temporary housing | Rental assistance |
| Special needs populations | Food and shelter | Rental assistance | Food and transportation |
| Safety and security | Warming centers | Food and clothing (replacements) | Income replacement |
| Command and control (incident command system) | Charging stations | Income replacement | Housing, construction, rebuilding |
| | Social support | Gas cards/gift cards | Assistance with navigating insurance, grant, and loan processes |
| | Debris removal | Process map/flow of assistance and timelines | Social support |
| | | Social support | Emotional and spiritual support |
| | | Emotional and spiritual support | |

Table 9. Timeline of Organizational Response, by Type of Organization, in Post-Hurricane Sandy Recovery in Coastal New Jersey, 2012–2017

| Shelter in place (first 72 hours) | Emergency response (0–10 days) | Short-term recovery (11 days–3 months) | Long-term recovery (3 months–4 years) |
|---|---|---|---|
| Office of Emergency Managements | Office of Emergency Managements | FEMA | FEMA |
| National Guard | National Guard | Office of Emergency Managements | Office of Emergency Managements |
| Fire/ambulance | Fire/ambulance | National Guard | Local churches and pop-up organizations |
| Police | Police | Fire/Ambulance | Community nonprofits |
| Public Works Departments | Public Works Departments | Police | Regional nonprofits |
| Community emergency response teams | Community emergency public response teams | Community emergency public response teams | Regional and national faith-based organizations |
| | Food banks and food shelves | Food banks and food shelves | Food banks and food shelves |
| | Church basements and community rooms | COADS/VOADs | Social enterprises |
| | Pop-ups and neighborhood shelters | Local faith-based organizations | National business chains |
| | Hospitals | National faith-based organizations | Insurance companies |

| Shelter in place (first 72 hours) | Emergency response (0–10 days) | Short-term recovery (11 days–3 months) | Long-term recovery (3 months–4 years) |
|---|---|---|---|
| | Local hospitals | Community and regional nonprofits<br>National nonprofits<br>Funders and philanthropists<br>Pop-ups and neighborhood shelters<br>National chains | Funders and philanthropists<br>State funding sources<br>Federal funding sources<br>Community fundraising/funding sources |

Table 10. FEMA: A Whole Community Response

- 507 voluntary agencies were involved in recovery
- More than 1.6 million meals and 1.4 million liters of water were distributed
- 21 languages were used to communicate assistance information to survivors
- More than 1 million multilingual fliers were distributed
- Nearly 8.7 million cubic yards of debris was removed
- At peak, more than 2,429 people were deployed to New Jersey by FEMA and other federal agencies
- 36 federal agencies assisted FEMA during Hurricane Sandy in New York
- The U.S. Army Corps of Engineers received 335 requests for generators—106 installed at peak
- Approximately 300,000 pounds of food was provided by the U.S. Department of Agriculture
- The Defense Logistics Agency delivered 2.3 million gallons of fuel to distribution points in New York and New Jersey
- The Port of New Jersey was closed to incoming and outgoing vessel traffic because of Superstorm Sandy, according the U.S. Coast Guard

*Note.* Adapted from *A Year After Hurricane Sandy: New Jersey by the Numbers*, by the Federal Emergency Management Agency, 2013.

Table 11. Networked Stakeholders in Coastal New Jersey Long-Term Recovery, 2012–2016 (Top 25 by Degree Centrality)

| Type of organization | Role in network[a] | Degree centrality |
|---|---|---|
| Regional grant maker[b] | Existing | 79.000 |
| Networked grassroots organization | Emergent | 55.000 |
| Long-term recovery group 1 | Planned | 52.000 |
| Federal funding agency | Planned | 40.000 |
| State funding agency | Planned | 39.000 |
| National faith-based organization 1 | Existing | 39.000 |
| National disaster recovery organization 1 | Planned | 37.000 |
| National disaster recovery organization 2 | Planned | 36.000 |
| Fiscal agent 1 | Existing | 36.000 |
| Local faith-based organization 1 | Existing | 35.000 |
| Long-term recovery group 2 | Planned | 34.000 |
| County COAD | Emergent | 34.000 |
| State grant maker | Emergent | 34.000 |
| Beach town 1 | Existing | 33.000 |
| State VOAD | Planned | 33.000 |
| County nonprofit social services agency 1 | Existing | 33.000 |
| National disaster recovery organization 3 | Existing | 31.000 |
| County nonprofit housing agency 1 | Existing | 31.000 |
| Regional utility company | Planned | 30.000 |
| County office of emergency management | Planned | 29.000 |
| Case management intake location 1 | Emergent | 27.000 |

| Type of organization | Role in network[a] | Degree centrality |
|---|---|---|
| State faith-based organization 1 | Emergent | 26.000 |
| Grassroots organization 1 | Emergent | 26.000 |
| State faith-based organization 2 | Existing | 25.000 |
| Grassroots organization 2 | Emergent | 23.000 |

*Note.* 178 Organizational names are included in the network for the period 2012–2018. Only 178 names of the reported 200+ organizations at long-term recovery meetings in November and December 2012 could be identified and confirmed. Two first-responder organizations held the 25th and 26th places in the network. They were removed from the Top 25-degree centrality ranking because their role ended by 2013. Grassroots Organization 2, active across the 4-year period measured, replaced the two first responder organizations. All other organizations were active throughout most of the 2012–2016 time period.

[a]*Existing* refers to organizations active in the coastal New Jersey civic network prior to the storm, *planned* refers to those organizations who had prior knowledge of their potential activation for disaster response and recovery, and *emergent* refers to new or "pop-up" organizations that did not exist prior to Hurricane Sandy.

[b]While the regional grant maker is a heavy-hitter philanthropic organization in an adjacent region also impacted by Hurricane Sandy, the grant maker did not operate in coastal New Jersey prior to Hurricane Sandy.

FIGURES

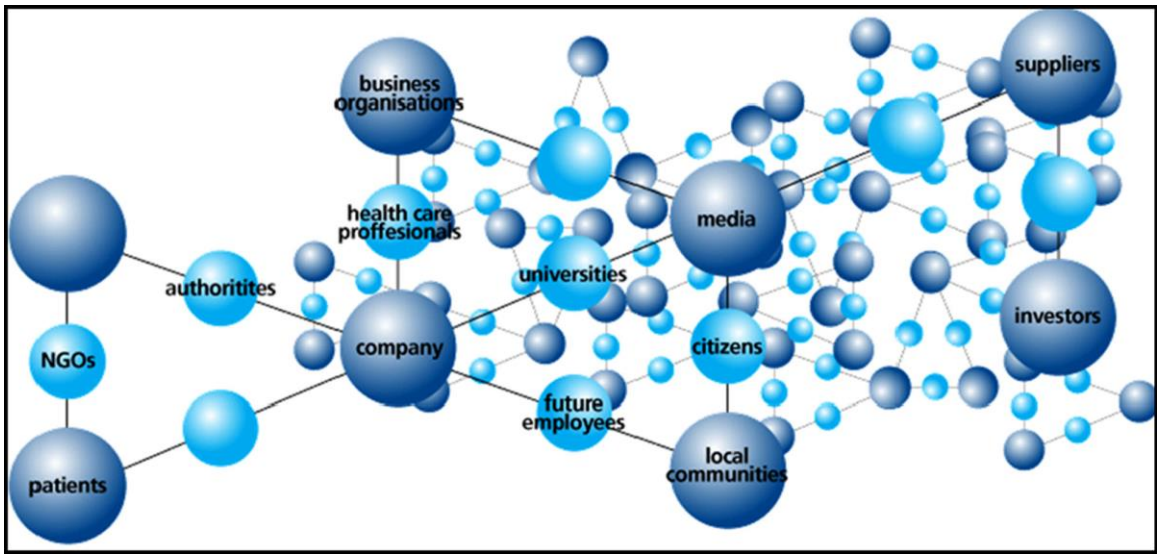


*Figure 1.* Novo Nordisk stakeholder model. Reprinted from "Scandinavian Cooperative Advantage: The Theory and Practice of Stakeholder Engagement in Scandinavia," by R. Strand and R. E. Freeman, 2015, *Journal of Business Ethics, 127,* p 78. Journal of business ethics by KLUWER ACADEMIC PUBLISHERS (DORDRECHT). Reproduced with permission of KLUWER ACADEMIC PUBLISHERS (DORDRECHT) in the format Thesis/Dissertation via Copyright Clearance Center.

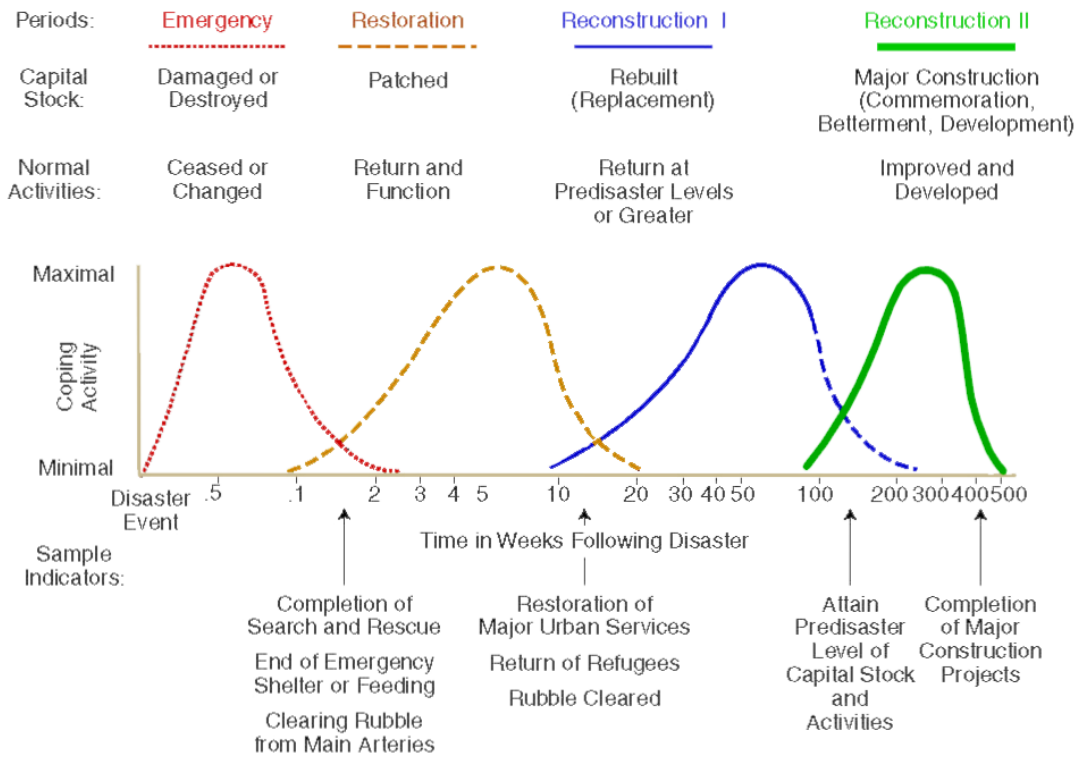


*Figure 2.* Rubin's multi-year model of the phases of long-term recovery. Reprinted from "Long Term Recovery from Disasters—The Neglected Component of Emergency Management," by C. B. Rubin, 2009, *Journal of Homeland Security and Emergency Management, 6,* p. 7. JOURNAL OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT by BERKELEY ELECTRONIC PRESS. Reproduced with permission of BERKELEY ELECTRONIC PRESS in the format Thesis/Dissertation via Copyright Clearance Center.

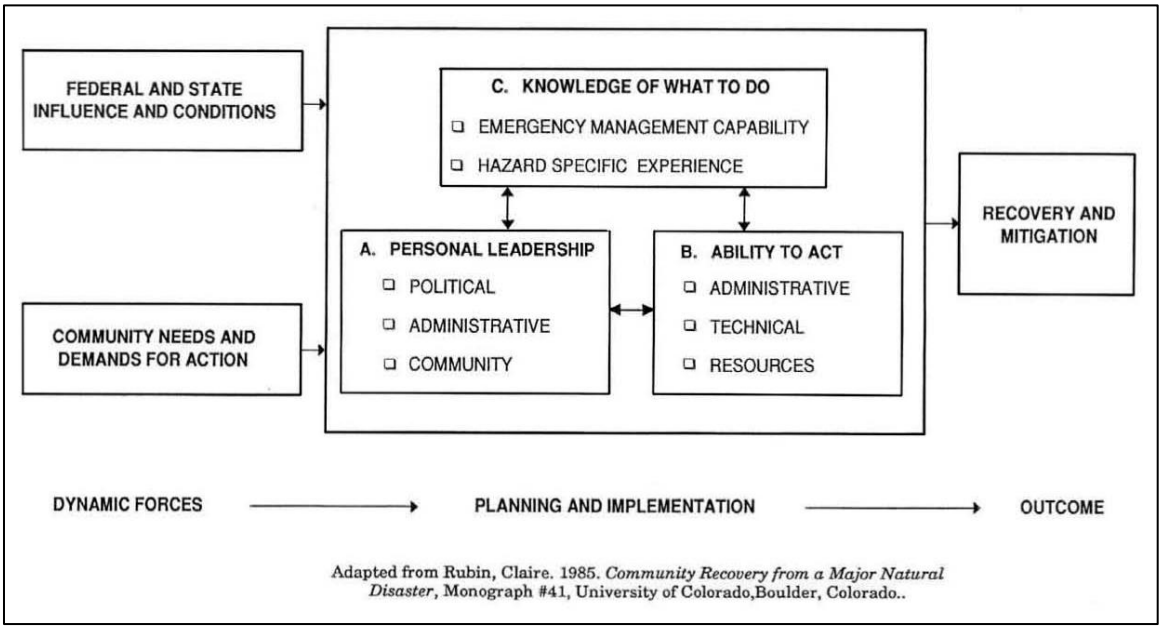


*Figure 3.* Rubin's three-step model of recovery. Reprinted from "Long Term Recovery from Disasters—The Neglected Component of Emergency Management," by C. B. Rubin, 2009, *Journal of Homeland Security and Emergency Management, 6,* p. 5. JOURNAL OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT by BERKELEY ELECTRONIC PRESS. Reproduced with permission of BERKELEY ELECTRONIC PRESS in the format Thesis/Dissertation via Copyright Clearance Center.

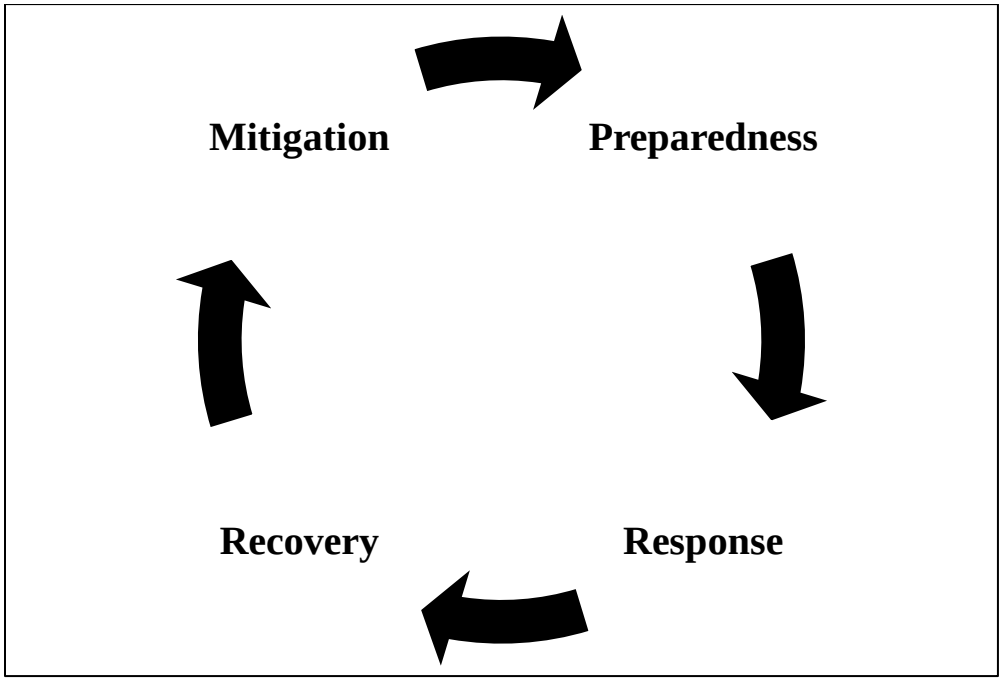


*Figure 4.* FEMA's four phases of disaster management. Federal Emergency Management Response Agency (2008, 2011, 2013).

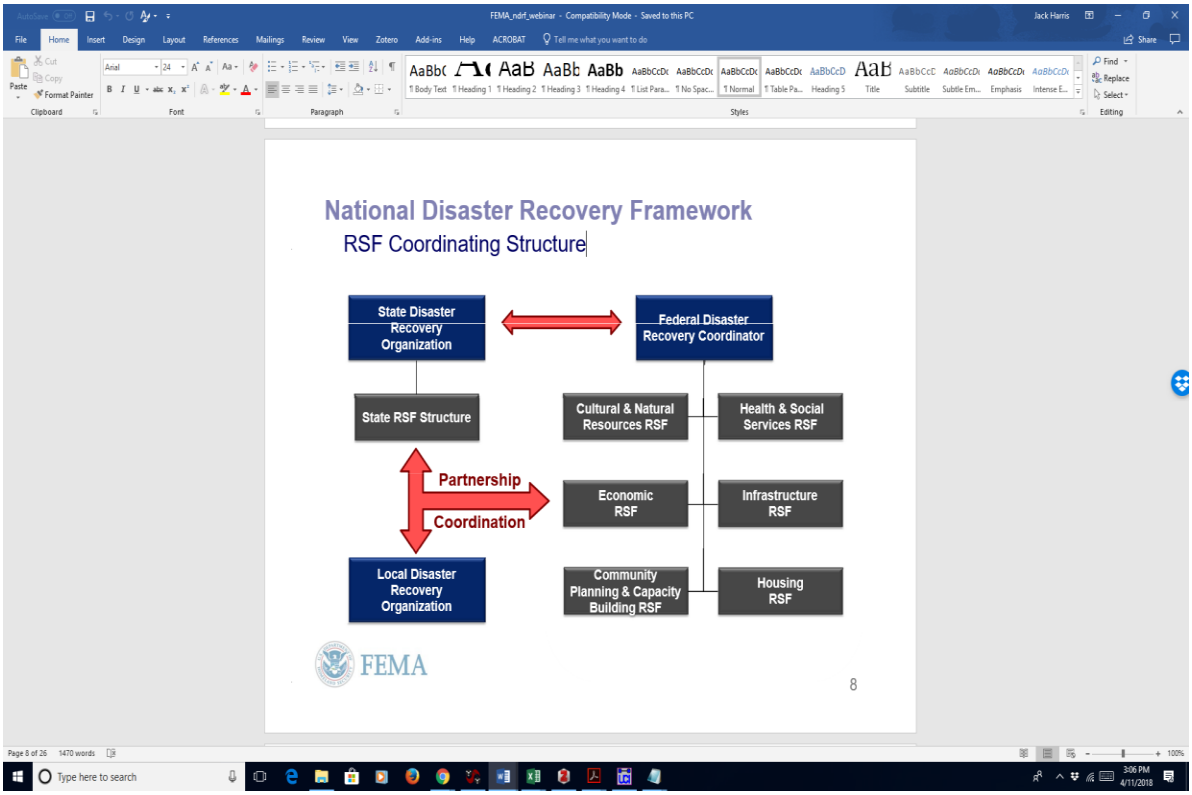


*Figure 5.* Organizational structure of FEMA's recovery support functions. Reprinted from *National Disaster Recovery Framework*, by the Federal Emergency Management Agency, September 2011, p. 8.

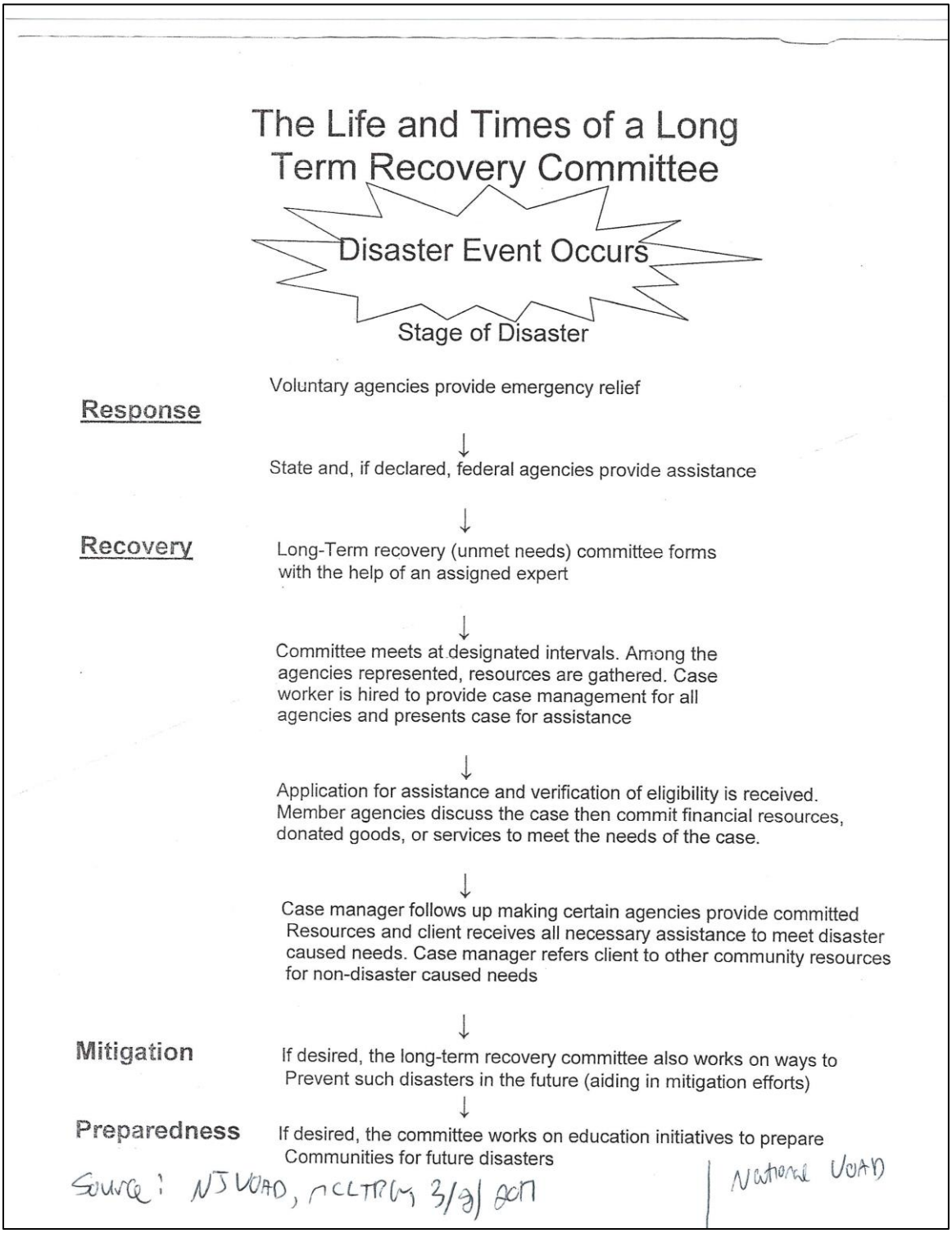


*Figure 6.* General overview of long-term recovery committee process. Source: Monmouth County Long Term Recovery Group, New Jersey Voluntary Organizations Active in Disaster (NJVOAD) from the National Voluntary Organizations Active in Disaster (National VOAD).

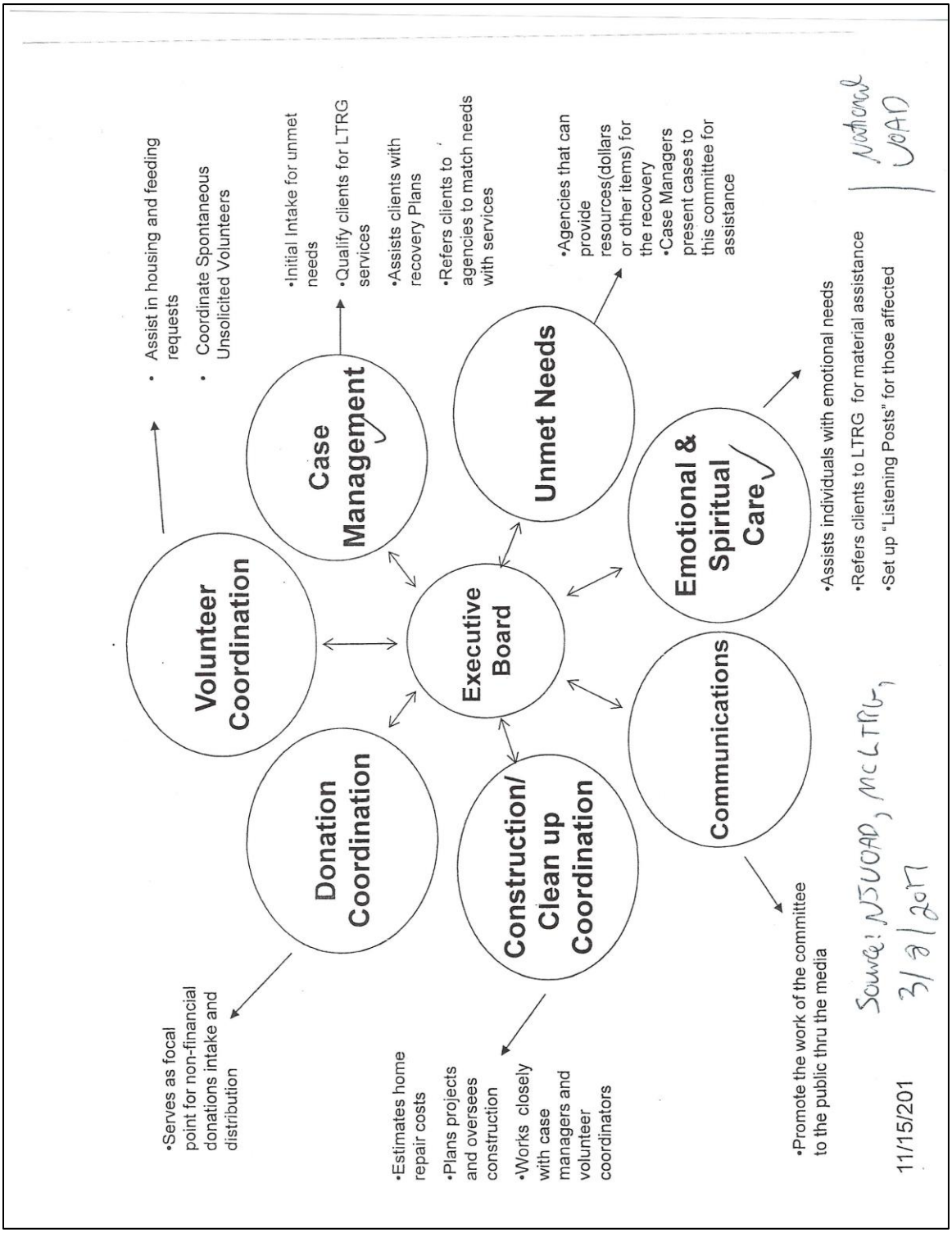


*Figure 7.* Long-term recovery group organizational structure. Source: Monmouth County Long Term Recovery Group, New Jersey Voluntary Organizations Active in Disaster (NJVOAD) from the National Voluntary Organizations Active in Disaster (National VOAD).

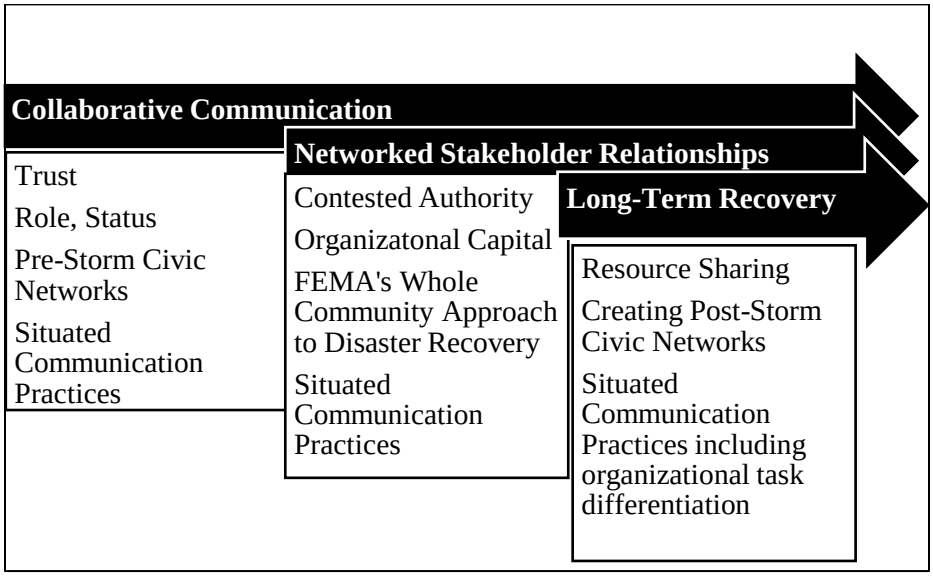


*Figure 8.* The communication and organizing processes of long-term recovery.

# APPENDIX A: ACTIVITIES AND ROLES IN COASTAL NEW JERSEY AFTER HURRICANE SANDY

- Volunteer leader at Oceanport microshelter(s), October 30, 2012–January 1, 2013
- Cofounder and board member, Oceanport Cares, a post-disaster "pop-up organization" that earned 501(c)(3) status in 2013, 2013–Present
- Volunteer committee member of the Monmouth County Long-Term Recovery Group, 2013–2014
- Member of Oceanport community emergency response team, 2013–Present; trainings in 2013 and 2014
- Executive committee member, Monmouth County Coalition of Organizations Active in Disaster, 2016–Present

# APPENDIX B: SOURCES AND TYPES OF DATA ACCESSED AND ANALYZED

| Data source | Type of data |
|---|---|
| Meetings and encounters | Observations, field notes, field journal |
| Interview data | Transcripts, interview notes, field notes |
| Organizational documents | Rosters, meeting minutes, agendas, binders, notebooks, organizational files from the following sources: |
| | United Way of Monmouth & Ocean County |
| | Oceanport Cares |
| | OccupySandyNJ |
| | Monmouth County Long-Term Recovery Group |
| | Monmouth COAD |
| | American Red Cross Long-Term Recovery from Hurricane Sandy Grants (May 23, 2014) |
| | Volunteer Center of Bergen County—LTRG formation press release (January 2013) |
| | NJLTRGs contact information sheet (source and date unknown) |
| | *NJ211 NJ Hurricane Sandy Long-Term Relief and Recovery Guide* (September 30, 2014) |
| | *Safer After Sandy: Established LTRG Fact Sheet* (NJ Work Environment Council, March 28, 2014) |
| Government documents | *Department of Housing and Urban Development Quarterly Performance Report*, September 2017; Grant: B-13-DS-34-0001 |
| | NJ State Legislature: *OLS Budget Q&A on Hurricane Sandy 2012–2017* |

| | |
|---|---|
| | NJ State-Led Disaster Housing Task Force, *FEMA Disaster Housing Strategic Plan*, November 2012 (Total NJ FEMA Registrations as of 11/25/2012) |
| | *Hurricane Sandy Rebuilding Strategy: Stronger Communities; A Resilient Region* (August 2013), Federal Hurricane Sandy Rebuilding Task Force |
| | *FEMA Hurricane Sandy by the Numbers*, November 2013 |
| | NJ DCA Sandy Recovery website |
| | *Ocean County Community Long-Term Recovery Plan* (February 10, 2015) |
| | *Keansburg Borough Strategic Recovery Planning Report* (June 25, 2014) |
| | *City of Belmar—Hurricane Sandy Aid for Displaced Families* (January 2013) |
| | *Congressional Charter of the American Red Cross* (May 2007) |
| | *The Congressional Charter of the American National Red Cross: Overview, History, and Analysis* (Congressional Research Service, March 15, 2006) |
| | *National Disaster Response Plan* (2008, 2013) |
| | *National Disaster Recovery Plan* (2011) |
| | *National Incident Management System* (2008) |
| | Tax roll data from a limited number of selected communities |
| Academic and nonprofit reports | *The Long Road Home: Understanding Sandy Recovery and Lessons for Future Storms Five Years Later, NJ Resource Project* (2017) |
| | *NJVOAD: NJ NPO Long-Term Recovery Assessment* (2016) |
| | *Fair Share Housing Center State of Sandy Recovery*, February 2015 |
| | *Rutgers SPIA: The Impact of Super Storm Sandy on NJ Towns and Households* (2013) |
| | *Post-Hurricane Sandy Recovery in Sea Bright, NJ: Impediments to Home Repair and Recovery*, Harvard Kennedy School May 9, 2013 |

| | |
|---|---|
| Scientific reports | *Tropical Cyclone Report: Hurricane Sandy October 22–October 29*; National Hurricane Center (February 12, 2013)<br>*Beach Dune Assessment of NJ Beach Profile Network Reports; Northern Monmouth County Through Cape May County 2012-2013*, Stockton College of NJ<br>*Damage Assessment Report on the Effects of Hurricane Sandy on the State of New Jersey's Natural Resources* (May 2015), Office of Science, New Jersey Department of Environmental Protection |
| Selected media and news sources | *The New York Times*, Patrick McGeehan and Winnie Hu, October 29, 2017, "Five Years After Hurricane Sandy are we Better Prepared?"<br>*The New York Times*, October 29 2017, "Rebuilding After Hurricane Sandy: One Brick at a Time."<br>https://www.nytimes.com/2017/10/29/nyregion/hurricane-sandy-5-years-rebuilding.html<br>*Star-Ledger*, October 29, 2017, MaryAnn Spoto, "Hurricane Sandy Continues to Haunt Residents Five Years Later."<br>http://www.nj.com/ocean/index.ssf/2017/10/the_fallout_from_hurricane_sandy_5_years_later.html<br>*Star-Ledger*, October 25, 2017, Jeff Goldman, "Hardest Hit Victims Still Unhappy with N.J. Recovery 5 Years Later, Poll Says."<br>http://www.nj.com/politics/index.ssf/2017/10/more_than_half_of_sandy_victims_still_dissatisfied.html<br>*Star-Ledger*, September 21, 2017, Mark Di Ionno, "Five Years After Sandy, Jersey Victims See the Future for Those Hit by Harvey and Irma." |

http://www.nj.com/news/index.ssf/2017/09/5_years_after_sandy_ jersey_victims_see_the_future.html

*FiveThirtyEight*, September 19, 2017, Julia Wolfe and Oliver Roeder. "The (Very) Long Tail of Hurricane Recovery." https://projects.fivethirtyeight.com/sandy-311/

*The New York Times*, August 31, 2017, Gina Bellafante. "What Sandy Can Teach Harvey About Recovery." https://www.nytimes.com/2017/08/31/nyregion/sandy-harvey-hurricane-recovery-lessons.html

*Star-Ledger*, Alex Napoliello, June 12, 2016. "How Developers, not Storm Victims, Cashed in on $600 Million in Sandy Funds." http://www.nj.com/monmouth/index.ssf/2016/06/millions_of_dollars_in_sandy_recovery_money_helpin.html

*Star-Ledger*, MaryAnn Spoto, October 27, 2016. "4 Years After Sandy, Homeowners Express Frustration, Outrage, Over Slow Recovery." http://www.nj.com/monmouth/index.ssf/2016/10/four_years_after_ sandy_homeowners_expcress_frustrat.html

*Star-Ledger*, Mark Di Ionno, October 27, 2015. "A Sandy Monument to Frustration in Trenton."

*Star-Ledger*, Kathleen O'Brien, July 29, 2015. "Study Reveals the Hidden Toll on Superstorm Sandy Victims."

*Asbury Park Press Special Report*, May 22, 2014, "Sandy's Ghost Towns: Two Years after Hurricane Sandy, The Beaches are Back. But the Tourists Aren't." https://www.app.com/story/news/local/monmouth-county/sandy-recovery/2014/05/22/sandy-ghost-towns/9472839/

*The Guardian Special Report*, David Uberti, July 27, 2015. “10 Years After the Storm: Has New Orleans Learned the Lessons of Hurricane Katrina.”

*ProPublica*, Justin Elliott and Jesse Eisenger, December 11, 2014. “How Fear of Occupy Sandy Undermined Red Cross’s Sandy Relief Effort.”

*The New York Times*, November 9, 2012, Alan Feuer. “Where FEMA Fell Short, Occupy Sandy was There.”

*The New York Times*, November 6, 2012, “Hurricane Sandy: Covering the Storm.”

http://www.nytimes.com/interactive/2012/10/28/nyregion/hurricane-sandy.html

# APPENDIX C: INFORMED CONSENT, RESEARCH PROTOCOL, AND SEMISTRUCTURED INTERVIEW GUIDE

Principal Investigator: Jack Harris

Project Title: Interorganizational Collaboration After Sandy: Processes of Long Term Recovery After Hurricane Sandy

## INFORMED CONSENT FORM

You are invited to participate in a research study that is being conducted by Jack Harris, who is a Ph. D Candidate in the Communication Department at Rutgers University. The purpose of this research is **to understand the role of interorganizational relationships in long-term recovery of communities.**

Interviews will range up to one hour and may be audiotaped dependent upon the participant's consent.

This research is confidential.

This research is confidential. Confidential means that the research records will include some information about you and this information will be stored in such a manner that some linkage between your identity and the response in the research exists. Some of the information collected about you includes name, organization, role, and position. Please note that we will keep this information confidential by limiting individual's access to the research data and keeping it in a secure location.

The research team, **a transcriber**, and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a

professional conference, only group results will be stated. All study data will be kept for up to 5 years, and will be destroyed at the conclusion of the study.

"There are no foreseeable risks to participation in this study."

Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the study or study procedures, you may contact myself at (please provide your full contact information).

If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University, the State University of New Jersey

Institutional Review Board for the Protection of Human Subjects

Office of Research and Sponsored Programs

3 Rutgers Plaza

New Brunswick, NJ 08901-8559

Tel: 848-932-0150

E-mail: humansubjects@orsp.rutgers.edu

You will be given a copy of this consent form for your records.

Sign below if you agree to participate in this research study:

Subject (Print) _____

Subject Signature _____ Date _____

Principal Investigator Signature _____ Date _____

**Audio/Videotape Addendum to Consent form**

You have already agreed to participate in a research study entitled **"Interorganizational Collaboration After Sandy: Processes of Long-Term Recovery After Hurricane Sandy"** conducted by **John (Jack) L. Harris Jr.]**. We are asking for your permission to allow us to **Audiotape your interview** as part of that research study. You do not have to agree to be recorded in order to participate in the main part of the study.

The recording(s) will be used for **analysis of the research using standard qualitative coding protocols. Transcripts will prepared of the recordings for use in this research.**

The recording(s) will include ***name and initials of the interviewees, town, or organization name which will be available only to the four investigators and the transcriber(s). Notes, talks, and publications derived from these analyzed transcripts will anonymize the data using identifiers for role or position and community or organization and will not reference names or initials.***

The recording(s) will be stored ***in a locked file cabinet and labeled with subjects' name or other identifiable information*** **and will be** ***[indicate the length of time the recording(s) will be retained, e.g. destroyed upon completion of the study procedures; destroyed upon publication of study results; retained indefinitely.]***

Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

Subject (Print) _____

Subject Signature _____ Date _____

Principal Investigator Signature _____ Date _____

**Amended Semi-structured Interview Guide**

Interorganizational Collaboration after Disruption: Processes of Long-Term Recovery ~~of NJ Organizations~~ After Hurricane Sandy

Challenges managing information, rebuilding community infrastructure and reconstituting organizational networks in the Sandy recovery period require ongoing attention to the interorganizational relationships among the voluntary, faith based and government agencies coordinating long term recovery efforts ~~in coastal New Jersey~~ after Hurricane Sandy. In order to better understand these challenges, we'd like to ask you a set of questions about your participation with other organizations in the long-term recovery effort. The questions are divided into three parts. The first asks for some general background information about your organization, the second about the organizations you work most closely with, and the third is about key challenges of coordination and collaboration in the overall long term recovery process. There are 10 questions total which should take about 45 minutes or so. At the end, I will ask you to describe a typical activity of coordination and collaboration that you engage in frequently.

**Background and Demographic Information**

1. What is the name of your organization?
2. What type of organization are you?
    - Nonprofit (NPO)
    - Nongovernmental Agency (NGO)
    - Faith Based Organization (FBO)
    - Government Agency (EA)
    - Community based (grassroots) voluntary organization (CBVO)

3. Are you a VOAID (Volunteer Organization Active in Disaster?)
4. ~~Are you headquartered in Monmouth County~~ What do you consider your primary area of operation for Sandy long-term recovery activities [neighborhood, borough, town, county region --- North Shore, South Shore, Raritan Bayshore, Delaware Bayshore, etc.
    - ~~If yes, where _____~~
    - ~~If no, are you headquartered in NJ? If yes, where _____~~
    - ~~If not NJ based, where are you based _____ (City, State, Country, etc.)~~
5. Are you headquartered in the county or borough you are primarily operating in?
    - If yes, where _____
    - If no, are you headquartered in NJ? If yes, where _____
    - If not NJ based, where are you based _____ (City, State, Country, etc.)
6. Were you an active nonprofit or social services agency/provider before Sandy?
    - Yes or No
    - How long have you been active in your ~~Monmouth County~~? primary area of operation?
    - Did a person or organization solicit your involvement?
        i. Who?
        ii. When?

iii. Why?

- What prompted your decision to become involved with the long-term recovery Process ~~in Monmouth County~~ after Sandy?

7. What are some of the key challenges you faced with the long-term recovery process?
8. What are some of your key successes?
9. Name one or two activities that you engage in on a regular basis in order to collaborate with and coordinate with your partnering organization?
10. Now I'd like to turn to some more specific questions about your organizational relationships and partnerships:

**Network-Level Information**

Organizations have professional partners (e.g., other nonprofits, businesses, suppliers, nonprofit organizations, etc.) with whom they communicate. Often these ties are reached in official capacities (e.g., serving on a board of directors, a committee or a task force) or in more casual information sharing conversations (e.g., talking with other business owners about how effective a business-related new technology may be). Can you name the five organizations you are most frequently in contact with during the long-term recovery process and their location, if you know it.

- _____
- _____
- _____
- _____
- _____

| Organization name | Type of communication in use |
|---|---|
| a. | *Formal meeting* (weekly or monthly committee meetings, board meetings, task force meetings, project or service delivery review, case management meetings, etc.)<br>*Informal meeting* (meal, coffee shop, work site, etc.)<br>*Social media* (Facebook, Twitter, LinkedIn, Google+, Tumblr, Instagram, Vine, Blogs, etc.)<br>*Web-based tools* (shared portals, Google Drive, Dropbox, etc.)<br>*E-mail, text, phone Text* |
| b. | *Formal meeting*<br>*Informal meeting* (meal, coffee shop, work site, etc.)<br>*Social media* (Facebook, Twitter, LinkedIn, Google+, Tumblr, Instagram, Vine, blogs, etc.)<br>*Web-based tools* (shared portals, Google Drive, Dropbox, etc.)<br>*E-mail, text, phone* |
| c. | *Formal meeting*<br>*Informal meeting* (meal, coffee shop, work site, etc.)<br>*Social media* (Facebook, Twitter, LinkedIn, Google+, Tumblr, Instagram, Vine, blogs, etc.)<br>*Web-based tools* (shared portals, Google Drive, Dropbox, etc.)<br>*E-mail, text, phone* |

| Organization name | Type of communication in use |
|---|---|
| d. | *Formal meeting* |
| | *Informal meeting* (meal, coffee shop, work site, etc.) |
| | *Social Media* (Facebook, Twitter, LinkedIn, Google+, Tumblr, Instagram, Vine, blogs, etc.) |
| | *Web-based tools* (shared portals, Google Drive, Dropbox, etc.) |
| | *E-mail, text, phone* |
| e. | *Formal meeting* |
| | *Informal meeting* (meal, coffee shop, work site, etc.) |
| | *Social media* (Facebook, Twitter, LinkedIn, Google+, Tumblr, Instagram, Vine, blogs, etc.) |
| | *Web-based tools* (shared portals, Google Drive, Dropbox, etc.) |
| | *E-mail, text, phone* |

[The survey sections below will be replaced by the revised survey, "Processes of Long-Term Recovery After Natural Disaster: The Role of Community Organizations and Local Networks After Sandy." This survey is included with this request for amendment.

[Delete Following Survey Sections]

| Name of organization | Frequency of communication | Most frequent type of communication |
|---|---|---|
| a. | Hourly | Formal meeting |
| | Daily | Informal meeting |

| Name of organization | Frequency of communication | Most frequent type of communication |
|---|---|---|
| | Weekly | Social media |
| | Monthly | Web-based tools |
| | | E-mail, text, phone |
| b. | Hourly | Formal meeting |
| | Daily | Informal meeting |
| | Weekly | Social media |
| | Monthly | Web-based tools |
| | | E-mail, text, phone |
| c. | Hourly | Formal meeting |
| | Daily | Informal meeting |
| | Weekly | Social media |
| | Monthly | Web-based tools |
| | | E-mail, text, phone |
| d. | Hourly | Formal meeting |
| | Daily | Informal meeting |
| | Weekly | Social media |
| | Monthly | Web-based tools |
| | | E-mail, text, phone |
| e. | Hourly | Formal meeting |
| | Daily | Informal meeting |
| | Weekly | Social media |

| Name of organization | Frequency of communication | Most frequent type of communication |
|---|---|---|
| | Monthly | Web-based tools<br>E-mail, text, phone |

**[End Deletion]**

**Coordination and Collaboration Information**

11. What is the biggest challenge you face in coordinating with other agencies in the long-term recovery process?
    - What makes this a challenge?
    - Have you take any particular steps to resolve this challenge?
        i. Yes?
        ii. No?
    - What were they?
    - Were they successful?
        i. Yes?
        ii. No?
12. What would you identify as the biggest obstacles facing your involvement in the long-term recovery process (think of things like time, money, volunteers, staff, red tape, etc.)
    - Of those obstacles named, what are the three most difficult obstacles to overcome?
    - Can you rank them on a scale of 1–5, with 5 being high?

- What steps have you or your organizational partners taken to overcome these obstacles?
- Has this been successful? (Why or why not?)

**Open-Ended Question**

Describe a typical coordinating activity that you engaged in on at least a weekly basis?

**Phone Interview [Survey]**

**(Municipal Elected and Appointed Officials)**

Hi I'm _____ with Rutgers University. We're doing a study to better understand how long-term recovery after Sandy unfolded in New Jersey and to identify ways to help communities recover more quickly and build back stronger. Can we ask you a few quick questions (four) it should take about ____ minutes?

[If No]

Thank you for your time. Is there another time we could talk?

Or,

Is there someone in your community you think we should talk with?

[If Yes]

1. Which organization or organizations did your community partner with most often during the long-term recovery period after Sandy?

2. Did you change partnering organizations one or more times during this long-term recovery period?

a.) Who were these organizations you added or switched to?

b. Briefly, why did you switch?

3. How frequently did you interact with these organizations (daily, weekly, monthly quarterly, yearly)?

Do you have time for one more question?

[If Yes]

4. How did you coordinate and communicate with the partnering organization(s)?

Using weekly or monthly meetings

During face-to-face conversation(s)

Using social media (e.g., LinkedIn, Facebook, Pinterest, Blogspot, Google groups)

With texts

With e-mail

Talking By phone

Thank you for your time today, your answers will help us design communication and coordination practices that should help your community become more resilient. Would you be willing to participate in a 30-minute interview with the project leader to discuss your community's organizational communication infrastructure more in-depth? For more information on the project feel free to contact Jack Harris at Jack.L.Harris@rutgers.edu or Marya Doerfel at mdoerfel@comminfo.rutgers.edu

[My phone # if asked is 952-212-7287]

[If No]

Thank you for your time today. Would you be willing to participate in a 30-minute interview with the project leader?

[If No]

Thanks again, you've been very helpful.

# ENDNOTES

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[1] Like many New Jersey municipalities, these are small communities, and census data from the American Community Survey paints a misleading picture of the income of the community. Although there are large assets in these communities, there are also many retired senior citizens in ranch homes purchased in the 1950s and 1960s living on fixed incomes with paid-off mortgages. Because of the small size of these communities, block-level census data do not exist in most of these communities, making it impossible to identify and group these clusters using census data. In many instances, census tract information crosses municipal boundaries in these communities. Census tract information is defined as neighborhood-level data with populations between 2,500 and 8,000 people. The communities discussed here include 1,875, 5,725, 3,022, 4,824, 4,294, and 9,826 people, respectively. These communities vary widely in terms of culture, education, and income, ranging from old fishing and clamming towns to post-World War II suburban tract development. In many other states and cities, these impacted communities would be neighborhoods within larger metropolitan regions.

[2] Research in 2014 in Staten Island (see endnote iii for a fuller description of this research and its connections to themes of isolation and abandonment and hyperlocal organizing) made visible parallels between community experiences in Staten Island in New York and coastal New Jersey. The two regions are joined geographically by the Raritan Bay and Lower New York Harbor.

[3] Research on Staten Island in summer 2014 first made clear the extent of pop-up organizations and hyperlocal organizing in post-Sandy recovery in the tristate region. Research was conducted under the auspices of *Internews* and funded by the Rockefeller Foundation; Napoli (2014) focused on the information ecosystems of Hurricane Sandy response and recovery. Extensive parallels to organizational activities and processes in coastal New Jersey were observed. The hyperlocal organizations phenomenon was identified during fieldwork on community information ecosystems in Staten Island and in the first author's postdisaster work in Monmouth County, New Jersey. The concept name was coined because of similarities to the hyperlocal media phenomenon preoccupying media researchers and journalists at the time of discovery. Hyperlocal organizations emerge from the lived, on-the-ground experiences of residents in disaster-impacted communities. Residents make sense of their experiences by communicating with others in the community about their individual and collective experiences and by seeking out information from multiple sources. Both coastal New Jersey and Staten Island had a number of neighborhood and community organizations popping up. Dozens of hubs were established by local residents on Staten Island in the aftermath of Hurricane Sandy as a way to provide material and informational assistance to displaced homeowners. In New Jersey, community organizations were created to fill in the gaps in assistance identified in Sandy-impacted communities, as described above. Focus group participants in Staten Island repeatedly mentioned how cut off and isolated they felt in the week after the storm

because of the closure of the bridges and ferries connecting Staten Island to New Jersey and the rest of New York. Although the media repeatedly played images of devastation in coastal New Jersey (especially of the tourist and wealthy summer home communities) and the Rockaways in Queens, Staten Islanders felt abandoned, especially along the South Shore areas where intense tidal action had severely damaged homes, displaced residents, and caused major loss of life. This sense of isolation and abandonment was similar to a sense of isolation and abandonment expressed by residents and community leaders in coastal New Jersey throughout the 5 years of research. Hyperlocal organizing processes in disaster-impacted communities are a major area for future exploration of processes of long-term recovery from disaster.