

SOURCES OF COMMUNITY RESILIENCE: THE CHALLENGE OF WORKING ACROSS LEVELS OF GOVERNMENTS AND SECTORS

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Executive Summary

Building sources of community resilience is often a complicated process to be gained by interorganizational collaboration. Since patterns of interorganizational relations among governments and sectors are constantly changing due to internal and external factors in the field of emergency management, understanding the dynamic nature of interorganizational collaboration is a critical step for improving a community's ability to bounce back from a catastrophic event. This essay aims to examine the challenge of working across levels of governments and sectors in building a resilient community by focusing on (1) the concept of community resilience; (2) interorganizational collaboration as a source of community and organizational resilience; and (3) application of social network analysis. Through the Institutional Collective Action framework, this essay attempts to demonstrate that the key to building community resilience is the locally formulated close-knit structure, which can secure redundant pathways for organizations to find appropriate information and resources.

The ability of a community to bounce back from disasters is a complicated process involving public, private, and nonprofit organizations. It highlights the challenges faced by organizations when working across different levels of governments and sectors (Agranoff and McGuire 2003). For example, catastrophic events such as earthquakes, hurricanes, and tornados often exceed the capacity of a single organization to response, which requires organizations to jointly coordinate efforts and pool resources together. The challenge also suggests that organizations must find ways to collaborate horizontally and vertically in order to effectively cope with high levels of uncertainty and risk (Feiock and Scholz 2012). The subject matter consists of three broad areas: (1) the concept of community resilience; (2) interorganizational collaboration as a source of community and organizational resilience; and (3) application of social network analysis.

First, **the concept of community resilience** – characterized by a community's ability and capacity to respond and recover damages from disasters – that has received much attention from scholars as well as federal, state, and local policymakers (Norris et al. 2008). It has gained a wide interest after the adoption of the *Hyogo Framework for Action 2005-2015*, calling for the need of community resilience research (Manyena 2006). Since previous literature has overlooked the importance of community resilience at the international level, studying the relationship between community resilience and interorganizational collaboration is a timely and important topic for the field of public administration.

However, the concept of resilience is not well defined in the field of emergency management making it difficult to develop a set of reliable constructs. For example, scholars have defined community resilience into four dimensions: Robustness, Rapidity, Resourcefulness, and Redundancy (Bruneau et al. 2003; Norris et al. 2008; Jung 2013) but they have not been operationalized and tested in a systematic way. While the dimension of robustness indicates the capacity of a community to deal with disrupt disaster situations (Bruneau et al. 2003), rapidity implies the speed in which organizations in a community can respond and recover from disasters (Jung 2013). Another dimension is resourcefulness, which is a complicated source of resilience since it implies organizations must have the ability to transform internal and external resources into something of value (Norris et al. 2008). The dimension of redundancy implies that collaboration facilitates organizations to pool resources during emergency planning.

Interorganizational collaboration is a source of community and organizational resilience. Scholars in the field of emergency management has argued that the purpose of establishing and maintaining interorganizational collaboration is to overcome limitations of internal organizational capacity (Kapucu et al. 2012). Working together allows organizations to build a joint capacity in order to minimize devastations that are brought about by disasters before they occur (Andrew and Carr 2013; Jung 2013). But, a strong commitment to work together depends on the ability of individual organizations to internalize a sense of cohesiveness (Jung et al. 2014). That is, organizational cohesiveness that demands individual organizations to prepare for disasters as a collective in order to minimize disruptions and function of an organization.

From the Institutional Collective Action (ICA) framework, however, a community resilience depends on the willingness of organizations to offer assistant and resources to others during emergency response (Feiock and Scholz 2012). Given limited resources that are available during response, organizations must also find ways to mobilize critical resources in order to meet their own individual's needs. Empirical studies suggest that organizations voluntarily collaborate with others given their internal capacity (Kapucu 2005), institutional capacity (Comfort and Haase 2006), and local communities characteristics (Andrew and Hawkins 2012). Fiscal constraints and lack of resources have also been recognized as underlying barriers to interorganizational collaboration in the field of emergency management. Scholars in the field of emergency management have suggested that organizations in a community can share resources through full-size emergency exercise and joint professional training in order to build an institutional setting that is crucial for building a resilient community. But, few have directly linked the importance of interorganizational collaboration and sources of community resilience.

The **application of social network analysis** aims to examine interorganizational collaboration. Since patterns of interorganizational relations are constantly changing, understanding the dynamic nature of interorganizational collaboration is a critical step to understand a community's ability to bounce back from a catastrophic event. While local governments often played crucial role as the first responder during emergency response, their efforts are made complicated by localized and fragmented authorities that cut across various levels of government and sector (Jung 2013). In some situations, they must deal with disasters through supports of higher level governments, but in some instances private businesses and nonprofit organizations (Jung et al. 2014).

However, few studies have employed social network analysis to map social positions of organizations in a community and then determine whether the social positions influence the ability of an organization to bounce back from disasters. Since individual organizations involved in emergency management networks have their own specialized knowledge or technology, an instantaneous response through collaboration can strengthen community resilience (Norris et al. 2008; Jung 2013). The speed of emergency response and recovery processes can also be swiftly recognized through joint coordination, which leads to a better assessment of damage and situational reporting. Employing the social network analysis can provide insights on sources of community and organizational resilience (Norris et al. 2008; Kapucu et al. 2012).

For example, an organization that is positioned as a "hub" or highly central in a network can find effective means to mobilize resources. The organization can also coordinate others and their activities through interorganizational networks and thus enhancing community resilience. Andrew and Carr (2012), for example, find that an organization that acts as a bridge to other organizations are likely to participate in regional preparedness planning. On the other hand, an organization may be positioned close to others in the emergency management networks and thus taking advantage of redundancy and accumulated resources. Mobilizing information and resources in disaster situation may not be sufficient. Organizations must be able to work closely together during disasters in order to secure redundant pathways and seek accurate information and appropriate resources.

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