Nonprofit disaster preparedness in the context of climate change: What can we learn from the leaders?

Beth Gazley, PhD, Indiana University-Bloomington
Rachel Cash, Doctoral Candidate, Indiana University-Bloomington

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Note: This is a working paper. Before citing, please contact the authors for a current version.

Acknowledgements: The authors gratefully acknowledge the RGK Foundation and the RGK Center for Philanthropy adn Community Service at the University of Texas Austin LBJ School of Public Affairs

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ABSTRACT

This is the first study that attempts to understand determinants of disaster preparedness by nonprofits that are themselves likely to respond to disasters, and the first to do so in the context of the politics of climate change. Structured interviews were conducted with 32 Indiana nonprofit executive directors or key staff in organizations with higher-than-average preparedness profiles. Testing leading nonprofit behavioral theories on risk management decisions, we find multiple themes that explain high planning behavior beyond organizational capacity. The profile of a high planning organization is one in which leaders connect the dots between severe weather and client/staff welfare, and view climate adaptation as mission-related. They also use service networks as sources of adaptive capacity to gain resources that support disaster preparedness. We also explored perceived barriers to risk management. A key finding is that even when they recognize the threat of more severe weather, boards of directors may view disaster preparedness as either too political an issue to address, or as outside their purview as an operational rather than strategic issue. We conclude by offering practical recommendations for nonprofit executives and a clearer conceptual path for researchers interested in testing the sector's capacity for climate change adaptation.

Keywords: Climate change, mitigation, disaster planning, risk management, resource dependency theory, systems theory, protection motivation theory

1. INTRODUCTION

When natural disasters strike in the United States, a vast network of nonprofit human, health, and social service agencies respond to help those in need. This expectation of a "whole community response" is written into American federal policy, but policymakers have fallen far short of understanding who actually does respond and whether they have the capacity to respond effectively (FEMA, 2019). Such a knowledge gap matters when climate change is causing severe weather disasters to grow in frequency and power, outstripping the capacities of an increasing number of direct service nonprofits. The problem is compounded even further by the uniqueness of American attitudes towards climate change, which are heavily politicized compared to other countries (Fagan & Huang, 2019).

Health, social, and community service organizations represent critical and essential components of every community's response and recovery capacity (Chikoto et al., 2018; Brudney & Gazley, 2009, Ritchie et al., 2010). A multi-stage study (Gazley & Cash; 2024a; 2024b) focuses on understanding the factors that predict vulnerability and resilience of this subsector, all in the interests of protecting their ability to operate without disruptions as climate-induced disasters increase in severity. A key finding is that applications of well-known risk management theories only go so far to explain planning and preparedness behavior. Specifically, Gazley and Cash (2024b) conclude that:

> "…disaster experience offers only a partial explanation for risk management action. Rather, the strongest predictors may be interpersonal, … through … information-sharing behaviors … and through boards willing to have these potentially difficult conversations."

This article uses follow-up interviews with the same sample of Indiana nonprofits to address three questions left unanswered by this earlier research. Specifically, what can we learn from the organizations who lead their peers in disaster planning and preparedness? What do they gain from service networks? And what encourages boards to hold these conversations about climate change's potential impact on the organization and those it serves?

This study takes a risk management lens, defined as "the process that examines and weighs policies, plans and actions for reducing the impact of a hazard on people, property, and the environment" (National Academies, 2012). We begin with a literature review, which includes a problem statement and discussion of the gaps in literature we seek to address, followed by a discussion of theoretical frameworks that might address the gap.

2 STATE OF THE RESEARCH ON NONPROFIT DISASTER PLANNING

2.1 Literature Review

As noted in our Introduction, despite the documented essential contributions of nonprofit social and human service organizations to community disaster response and recovery, the literature on nonprofit disaster planning and preparedness is quite thin. The extant literature is heavily focused on governmental institutions, or on household or business preparedness (Donahue et al., 2014; Dunaway & Shaw, 2010; Kapucu, 2008; Sadiq & Graham, 2016). This literature generally finds that the population's overall preparedness lags behind their exposure to natural hazards.
We define disaster preparedness as risk management activities that produce "plans for what to do, where to go, or who to call for help before an event occurs, which will improve chances of successfully dealing with an emergency" (FEMA, 2016, p. 3). Specifically, from the prior literature, preparedness might include hazard awareness, disaster planning, inter-organizational agreements, training clients and staff, and mitigating building hazards, all with the goal of ensuring life safety to clients and staff, and business recovery and service continuity more generally (Chikoto et al., 2013; Eisner, 2010; Sutton & Tierney, 2006).

Applying this perspective to the nonprofit sector, we identify at least three gaps in the literature that prevent us from understanding the keys to a potentially more disaster-resilient nonprofit sector in the context of climate change. First, most scholarship focused on nonprofits and disasters assesses their response and recovery capacity rather than their planning capacity. This literature is generally *ex post* and event-specific (see for example Simo & Bies, 2007). Very little literature takes a prospective approach to ask whether organizations plan adequately for business continuity in advance of a potential emergency (Sadiq & Graham, 2016, and Chikoto et al., 2013, make a similar point). We argue there are benefits to a predictive approach. Understanding what McEntire et al. (2002) describe as "disaster-resistant communities" puts the emphasis on planning and mitigation, the first two functional elements of the emergency management framework, and also helps share useful knowledge within the sector.

Second, very little nonprofit literature involves climate change empirically. Rather, it is most frequently used as a general framing device (Gazley & Prakash, 2023). This gap is surprising given the *ex post* literature analyzing very recent hurricane responses demonstrates significant vulnerabilities in the nonprofit sector's ability to maintain business continuity after the larger natural disasters generated by climate change (Chen, 2022; O'Donovan, 2019). We do not mean to suggest that previous authors have not made the link between preparedness and response capacity. Some of the most formative literature in disaster management argues for greater training in disaster preparedness across the sectors (see for example Drabek, 2003). But we do argue that nonprofit-focused literature focused on what works is too thin in the current context of climate change's heightened unpredictabilities. And we are particularly concerned that this literature, when it does appear, is problem-focused (especially on the nonprofit sector's resource constraints) rather than solution-oriented.

Third among the scholarly barriers are the limits on the conceptual lenses by which various disciplines have tackled disaster resilience. McEntire et al. (2002) call for more holistic "disaster paradigms" that go far beyond traditional approaches to emergency management to encompass three-sector strategies and a much broader cast of actors. They observe, for example, that the traditional focus on urban planners or engineers as the key actors in building "disaster-resistant communities" neglects the contributions of other actors such as nonprofit service providers (p. 269). We view this as a common "competing institutional logics" problem and also note that even in the most recent literature cited here, the unique context of nonprofit decision-making is overlooked, wherein a board of directors and key employees share responsibility for strategic decisions. To our knowledge, while this is not the first study focused on nonprofit disaster preparedness, it is the first to combine the context of nonprofit decision-making with that of climate change politics.

From the more general nonprofit disaster planning literature, a key explanation for a heightened level of disaster preparedness is organizational capacity (Chikoto et al., 2013; 2018). However, organizational capacity is only a partial explanation. Kim and Zakour (2018), for example, find among nonprofit disabilities service agencies that an organization's collaborative history also predicts disaster planning and preparedness. Dunaway and Shaw (2010) produce a similar finding on a small, mixed, business/nonprofit sample in that both small and large organizations demonstrate similarly heightened levels of preparedness when they are active in collaborative partnerships.

This finding makes sense when one considers a key element of collaborative theory is that partnerships, even when not disaster-focused, bring resources and information, and promote a culture of trust and reciprocity that can be useful when disaster does strike (Gazley, 2013). For example, Gin et al. (2016) find that homeless services organizations reporting the most perceived vulnerability to service disruptions were also most likely to work in isolation from peer organizations and public emergency management offices.

Prior disaster experience and/or exposure to hazards is less predictive of planning (Houser et al., 2022). However, Palinkas et al. (2021, p. 10) analyzed Louisiana community organizations' response to the COVID-19 pandemic to observe that this novel event was a double-edged sword: it required great "mental leaps" to adapt to a new playbook, but organizations also reported that prior natural disaster experience made them more adaptable to the pandemic.

Next, Kapucu et al. (2013) observe in a study of rural community planning that one must account for how the structure and culture of an organization shape organizational learning opportunities, such as how information is shared or not shared. For example, Mathias et al.'s (2022) study of nonprofit social service organizations' evolution in disaster response roles in the Tallahassee, Florida area during a surge in tropical storm activity found that nonprofits formerly peripheral to disaster work became more centrally involved but without being recognized as key actors. Harris (2022) found a similar "inside/outside" culture in an analysis of problems with the Hurricane Sandy response.

This last detail matters because nonprofit organizations with quite varying missions respond to natural disasters, well beyond those with explicit disaster response missions. They include organizations providing emergency cash assistance, housing, food, transportation, childcare, eldercare, and other forms of social and human services, as well as providing "disaster funds" and other forms of organized philanthropy and coordination. For example, in Indiana, 88% of community foundations and 100% of United Way agencies report providing past disaster assistance in their communities (Gazley & Cash, 2024a).

2.2 Theory

Salamon's (1987) originating argument for "voluntary failure theory" posits that nonprofits are the primary response mechanisms for societal needs, and government is the derivative institution responding to limits on voluntary action. In the context of disaster response, nonprofits can be more nimble, more attuned to community needs, and possibly more trusted agents. Despite the vast resources offered by governmental disaster response agencies, philanthropic and voluntary organizations have persisted in participating in disaster response and recovery to a degree that has sometimes surprised governmental observers and that has eventually been written into public policy as an acknowledgement of fact as much as need.

Given the link from the prior literature between planning and capacity, one might easily jump to the conclusion that philanthropic insufficiency (an element in voluntary failure theory) drives a failure to plan for disasters. However, rationales for not investing in climate action will vary considerably, and can also be explained in the context of philanthropic amateurism or particularism (Salamon, 1987). For example, these concepts could explain a lack of professional

knowledge about climate risks, or leaders' refusal to take account of the growing evidence of climate change's impacts on their clients.

There are other explanations for success at planning, however. Stakeholder and resource dependence theories (RDT), which rely in turn on broader organizational ecology and open systems theories, observe that actors make decisions to reduce environmental uncertainty and maximize survival. Pfeffer and Salancik (1978) originally conceived the board of directors as a source of internal power to secure resources (Hillman et al., 2009). Normatively, then, nonprofit boards should be leading efforts to protect organizational assets and reduce the potential risks of climate change. And nonprofit governance theory is also closely aligned with this perspective, finding that boards focused on strategic rather than operational issues are more likely to optimize organizational performance (Brown, 2005). A board paying attention to "matters of significant magnitude" will be most likely to fulfill the organization's charitable mission (Chait, Holland, & Taylor, 1991, p. 95).

Less covered in RDT's primarily business-focused research is that a board can also constrain success. But the nonprofit scholarly literature is much more sanguine on this matter, observing that board performance is multi-dimensional, and many boards underperform (Brown, 2005; Herman & Renz, 2000). Put another way, boards can be agents of Salamon's philanthropic failures when they carry any weaknesses in knowledge into their decision-making. Much is not yet understood about climate change's impact on severe weather. Although the academic experts closest to the climate science have converged on a common agreement about the heightened risk of severe weather induced by climate change, this science has not yet been embraced by the public at large, the pool from which community board members come.

The resource dependence theory literature also does not successfully reconcile the practicalities of organizational decision-making. As Hillman et al. (p. 1417) observe in their review of this literature, "which dependencies take precedence over others if multiple important dependencies coexist?" That question seems to us to be existentially linked to the situation in which local charities find themselves, as organizations simultaneously providing essential social services while being asked to muster additional resources to ensure business continuity in the face of climate change, all in the context of a highly politicized and scientifically complex global phenomenon about which their stakeholders may not agree.

Governance theory, in turn, leaves many questions unanswered, such how decision-making is most effectively shared between staff and the governing board (Cornforth & Edwards, 1999; LeRoux & Langer, 2016). Resource dependence theory plays a strong role in establishing the normative expectations of boards as leaders in strategy. However, Brown (2005, p. 344) also notes the connection to organizational performance offered by a "group process theory" model, which involves board members educating themselves on, and discussing issues important to mission achievement.

However, the counter-balance to these board-centered nonprofit performance models is the principle of executive "psychological centrality" wherein the chief executive is most likely to hold responsibility for critical decisions (Heimovics et al., 1993, p. 426). LeRoux and Langer (2016) argue, for example, that executive director seniority or tenure diminishes the board's

vigilance over organizational performance. In other words, disaster preparedness decisions could be claimed by the board as critical decisions, could be left to the chief executive out of deference, or the board might not view this topic as within its purview. Why the board might fail to consider climate change depends on more complex internal behavior, such as how active the board is on the boundary-spanning and learning dimensions of its role. Zhu et al. (2016, p. 322) have suggested, for example, that the way a board uses strategic information is a key mediator between the availability of this information and their likelihood of using it in strategic decision-making.

Other forces can also motivate organizational action. Another family of decision-making theories was designed for risk management scenarios. These include protection motivation theory (Floyd et al., 2000). A key conclusion from this scholarship is that disaster experience can be a powerful predictor of disaster planning (Drabek, 1986; Kim & Zadour, 2016; Lindell & Perry, 1998; Sadiq & Graham, 2016; Tierney et al., 2001). Specifically, it is possible that charities observing or experiencing climate change's effects on clients, staff, or facilities could be motivated to undertake risk reduction actions. However, to date, most applications of PMT examine human decision-making outside the context of workplace behavior, and most do not address the nonprofit context.

An open systems view of organizational behavior also posits that charity leaders reduce philanthropic amateurism and insufficiency when they operate within service networks. The advantages of a history of coordination among social and human services agencies has been emphasized by many scholars following many different kinds of disasters (see for example Barasa et al., 2018). Coordination improves situational awareness through information-sharing regarding local risks or planning needs and opens the door to other adaptation activities such as mutual aid agreements or other planned redundancies (Ahern, 2011; Comfort, 1994; Norris et al., 2008; Tobin, 1999). Coordination also offers opportunities for risk-pooling within service networks. And networks can help to level the playing field if they help resource-constrained organizations acquire additional knowledge or peer support efficiently.

To be precise, we are interested here not in disaster response networks such as COADs but rather the everyday service and professional networks to which charitable organizations most frequently belong. We view these networks as generally more widespread, stable, and focused on self-protection when compared to COAD/VOAD networks. Whether membership is by choice or compelled by external requirements, service and professional networks may offer latent benefits such as information and new knowledge about risks, which may in turn support emergency planning and preparedness in advance of disasters. Doerfel et al. (2013, p. 533) suggest that "pre-disaster relationships and networking patterns play a vital role in post-disaster rebuilding," offering adaptive forms of resiliency important to maintaining business continuity such as the ability to mobilize social and community capital. And "adaptive capacity," in turn, is a key component of climate adaptation, as viewed by the Intergovernmental Panel on Climate Change (2001).

To summarize, these theories offer contrasting explanations for the disaster planning and preparedness behavior of nonprofit organizations. Nonprofits could plan because stakeholders demand it (one application of resource dependence theory), or fail to plan out of fear that stakeholders would reject an action viewed as politically problematic (a contrasting application of resource dependence theory). They could plan because they have stronger situational awareness through their networking (open systems theory), or fail to plan because they underestimate the risks (philanthropic amateurism). They could plan because they have direct experience with a risk factor, or fail to plan when they do not view the global risk of climate change as relevant to their local situation (protection motivation theory). And they could plan because they employ a healthy governance model (group process theory) or fail to plan because they assign climate adaptation responsibilities to staff (executive psychological centrality).

These theories also offer competing explanations for nonprofit risk management. Organizations might connect the dots between natural hazard threats and organizational vulnerability, and take steps to mitigate these threats. But they might equally conclude that mitigating the threats in the name of climate change introduces new threats tied to stakeholder displeasure due to the politics of climate change.

3 STUDY DESIGN

3.1 Strategy

Nonprofit scholars infrequently focus on high performers in collecting data on nonprofit performance, but the method can be useful in identifying the common principles and practices that appear to explain organizational success. Herman and Renz (2000) compared board practices of high- and low-performing organizations, while Gazley and Kissman (2015) selected high-performing boards out of a larger study to understand how they had navigated successful governance change. Ogliastri et al. (2015) examined the structures of high-performing social enterprises to develop a theory about their organizing strategies. Both Light (2004) and Crutchfield and Grant (2012) have used the characteristics and experiences of organizations viewed as high-impact nonprofits to help practitioners understand paths to achievement. These examples also have in common a reliance on interviews as a method for obtaining more detailed information from high-performers regarding keys to success.

Focusing on high performers in nonprofit disaster planning accomplishes the goal of contributing to the common pool of national data on disaster resilience that experts have called for (National Academies, 2012). The choice of a qualitative approach follows Heist et al.'s (2022) argument that it is an appropriate theory-development strategy for under-researched topics or (in this case) topics in which current theory does not offer a complete explanation of the phenomenon.

3.1 Method and Data

A sample of high-performers was extracted from respondents to a 2022 survey fielded statewide in Indiana, USA (Gazley & Cash, 2024a). The subjects were social, health, human service, and philanthropic organizations identified through NTEE and Candid/Guidestar codes (n=467, RR=37%, CI=3.5%). The central research question asked to what extent these organizations were themselves planning for the potentially more severe impact of climate change. The findings and

full methodology details can be found in Gazley & Cash (2024a). The key limitation to relying on a sample derived from 990 data as it addresses the present study is that religious organizations as potential disaster responders will be undercounted.

This interview-based study is designed as a follow-up to the 2022 statewide survey. The sample was extracted by ranking the 433 organizations which had reported past disaster response activities according to summed responses to three survey questions: How much emergency planning they had accomplished, how many risk reduction actions they had taken, and how much climate action they had taken. The options offered to 2022 survey respondents generally followed "preparedness" actions covered in prior literature (e.g., by Sutton & Tierney, 2006) with some modifications based on a pre-test. Appendix A has the full text of the survey questions and response options. The strategy of creating a single scale of preparedness activities follows Chikoto et al. (2013) and Kim and Zakour (2018), based on high correlations between the three response sets.

This ranking and extraction method produced 206 organizations which fell above the mean of eight activities, of whom personalized email contact information could be produced for 144 (after attempting web, social media, and 990 searches). The sample reduced to 121 after selecting two organizations for pre-testing the interview and after accounting for email kickbacks (e.g., undelivered mail and respondents who had left their positions in the two years since the original survey). All individuals received two kinds of personalized invitations one to two weeks apart in staggered sets. The email invitations included an offer of a $50 digital cash card for participating. Of the invited executive directors, 10 formally declined, 79 did not reply, and 32 accepted the interview request, for a response and completion rate of 26%. The response rate seemed low given the cash card offer, but appears to be the outcome of seasonal timing. The phrasing of the invitation may also have played a role; some research suggests that among "pro-social individuals" in a U.S. context, altruistic appeals may be just as, if not more effective than monetary incentives in increasing survey response (Conn et al., 2019). Because the sample is deliberately non-representative of the population and the analysis that follows is qualitative, margin of error calculations or other estimates of generalizability are not necessary.

The interviews were conducted between June-September 2024 by either member of the author team via a Zoom or Microsoft Teams link. The study protocol was approved in advance by the authors' university institutional review board and is available from the authors on request. The modal length of interviews was 45 minutes. The meeting software generated full transcription texts which were coded in combination with hand notes that captured key concurrent details of the interviews (Maxwell, 2013; Vanover et al., 2021). The data were collected via a structured protocol of 19 questions using a combination of closed coding (for multiple-choice questions) and open coding (for open-ended questions). Given the exploratory and theory-building nature of this study, the emphasis was on open-ended questions. Thematic organization and coding of the data was conducted as a team over multiple sessions employing a blended approach of deductive coding for pre-established response options, but primarily using inductive (bottom-up) coding based on the responses to open-ended questions (Maxwell, 2013; Vanover et al., 2021).

4 FINDINGS

4.1 Characteristics of the Interviewees

The first set of questions captured relevant respondent characteristics (seniority, nature of their work, level of decision-making autonomy, perspectives on climate change, personal disaster recall, and amount of emergency training) and confirmed levels of respondent recall with the earlier study. Respondents split about 50/50 on recall levels (and a small number of respondents were substituting for the individual who had completed the earlier study), so prompts were employed to remind them of their earlier responses.

Table 1: Interviewed agency characteristics

Interviewed agency subfields	Count	Sample Revenue	Population Revenue
Disability services	5		
Community foundations	5		
Multi-service secular or faith community centers	5		
Youth development	4		
Food distribution	4		
Senior services	3		
Disaster response	2		
Women's shelters	2		
Rural transport	1		
Health care	1		
Average / Median		$4.7 million/$2.1 million	$5.8 m / $1.9 m
Range		$156,000-$47 million	

Table 1 displays the subfields represented by interviewees. All served vulnerable populations. The interviewees shared the following characteristics: they were almost entirely executive directors reporting typical ED responsibilities such as staff management, fundraising, planning, budgeting and programming (and when they were not, senior staff with emergency planning roles were interviewed). They also reported a high level of seniority in their positions, with a mean/median of 22 years at their agencies. And when asked how much autonomy they had in their jobs, all but two reported a great deal of autonomy.

Table 2: Executive Director Emergency Training

	Count of responses (some subjects offered multiple items)
No training	7
Some training	25
General emergency training	
CPR/AED	15
First aid	10
Narcan	3
Workplace safety/intruder/shooter	7
Mental health de-escalation	4
Other (chainsaw use, life flight)	1
Natural disaster training	
Computer system security	2
Drills/scenarios (e.g., tornado drill)	8
Incident command systems	4

Table 2 displays executive director training. Most training is focused on every day needs, while a small amount focuses on natural hazards. For example, just one-quarter of these individuals have "scenario" training. And only one respondent mentioned training in flood event evacuations, which are Indiana's most frequent natural disaster (this individual represented an organization located near a known flood hazard). One individual mentioned training in "CrisisGo" software, an app that facilitates on-site safety communication among staff for a wide variety of situations (water leaks, floods, power failures, etc.).

Two questions were designed to elicit better recall of other relevant information. The first asked what sort of natural disasters the respondent had personally experienced. Three interviewees were not able to recall any personal experience with a disaster, five could offer some recall, and the remaining three-quarters recalled in detail past snow storms, tornados, urban floods, earthquakes, derechos, hail, heat, and hurricanes. A few noted they viewed the COVID-19 pandemic as a natural disaster. The second question asked about the respondent's general views on climate change and whether these views had changed in any way over the last few years. Executive directors offered answers we view as fairly typical of the population at large, ranging from assertions that climate change is happening, is human caused and is a threat, to less specific views that while they see changing or cyclical weather, they are uncertain about its impact, to assertions that climate change is not a crisis and society is overreacting. The majority of respondents had not changed their viewpoints on climate change in recent years.

4.2 Predictors of a Heightened Level of Organizational Disaster Preparedness

The next set of questions got to the heart of the study, beginning with the query "So you're here because your organization seems to take emergency planning seriously. Generally, what do you think explains that?" Following open-ended coding, we discerned three reasons related to internal organizational conditions and two reasons related to external conditions.

4.2.1 Three internal conditions support emergency planning: mission salience, service continuity, and culture

The most frequent explanation for a more robust (compared to peers statewide) approach to disaster preparedness was mission salience, followed by a recognition of the need for service continuity, followed by a self-described organizational culture that promoted safety consciousness.

On the first item, executive directors noted their responsibility as a care-giver to the community and the vulnerable populations they served (e.g., children, seniors, individuals with disabilities, financially marginalized people). For example, one explained "we have to stay ahead of client needs with poor people who have no safety net." Another noted "our services are for children with mental health issues; they need to know they are safe before learning takes place."

Those who noted the need for service continuity explained they planned for emergencies because they provided life-sustaining services (like food or medical care) or less frequently, that their emergency planning was for the benefit of staff who operated in rough neighborhoods or who operated mainly in vehicles in all kinds of weather. In short, as one noted, "it would be irresponsible not to plan for emergencies." Overall, more than half of all responses addressed this point.

A regional transportation agency noted they provided the transportation lifeline to medical care and other essential services. For some, service continuity became a point of personal pride. For example, one interviewee remarked

> "It's personal … I don't want it all to cave under my watch. That would be a terrible legacy considering the 20 years of work I've put into this. I would hate for it to all fall because I wasn't thinking ahead and trying to thwart any kinds of major catastrophes when I had the opportunity to do that."

A small number of agencies noted that they had "a culture of safety" or alternatively, an environmentally-oriented culture or a social justice culture that compelled climate mitigation and adaptation steps. A daycare, for example, noted that because they served children, internal planning considered environmental stewardship actions that supported an ethos of clean air and water.

4.2.2 Two external conditions support emergency planning: experience and requirements

Executive directors reported two external impetuses for planning: direct/indirect organizational experience with a disaster, and/or the requirements of external agents. In the first instance, two respondents reported a non-natural disaster that destroyed the facility of a peer organization and compelled them to take service continuity more seriously. Five more mentioned direct experience with a natural disaster that disrupted agency services (mostly due to power outages) while four others reported that the COVID-19 pandemic was a "wake-up call" for them to plan more for emergencies.

In the second instance, interviewees noted guidelines required by contracts, accreditors, or regulators. For example, a food bank executive noted that their provider network (in this case, Feeding America) required disaster planning. One noted the external impetus came through a grant opportunity. One of the organizations explained that their major corporate partner had a notably strong safety culture, so taking emergency planning seriously was necessary if they were to host corporate volunteers.

4.2.3 Prepared organizations stick to a schedule of planning

We also asked whether they had a regular schedule for updating their organization's emergency plans. The majority reported a set schedule or (mostly annual) or regular updates as needed, while a small minority reported no regular schedule.

4.2.4 Prepared organizations seek outside help

Another question asked: "Have you ever had any outside help in making emergency plans?" This question used probes, modeled after a study of Florida residents about where they would go for disaster training. In frequency order, residents had named the Red Cross, fire department, police department, some other source, their insurance agent, or FEMA (Kapucu, 2008). Given the increase in the number of Community Organizations Active in Disaster (COAD) networks since this 2008 study, we expanded the prompts and included an open-ended response option as well.

All but one respondent reported they had sought outside help. Most executive directors reported consulting fewer than two sources of external expertise overall. Responses suggest a heavy reliance on local government and security professionals for general emergency planning.

Table 3. Where executive directors go for assistance in disaster planning

	Frequency of response (some subjects offered multiple items)
Public safety	
Local fire department	10
State emergency management agency	7
County emergency manager	6
Police	5
Health departments	2
Local non-public safety	
School corporations	1
Non-government, professional	
COAD, Salvation Army, United Way, or Red Cross chapter	9
Security companies and trainers	4
Insurers	3
Accreditors	3
Trade associations	3
Non-governmental, semi-professional	
Donors	6

We interpret these results to note first the tremendous diversity in the expertise organizations consult to build their emergency planning capacity. We note secondly the reliance on local/state sources of expertise. An open question remains as to whether they are seeking the expertise because it is what they most need, or rather using what resources are most available. Only in some instances, particularly among those with facilities used by children, could we discern that they were focused on priority threats such as building security.

4.2.5 Prepared organizations are proactive, collaborative, and rely on peer assistance.

We asked these nonprofit leaders what advice they would offer other organizations to improve their disaster resilience. The responses revealed three themes: they advised their peers to be proactive, to collaborate to learn, and to get outside expertise. For example, on the first theme, one executive director encouraged peers to “put your own house in order before helping others.” Others suggested planning can only happen “in peacetime”. One observed, “with prior planning you’ll be more likely to do the right things when an incident happens, and you will be able to tell others you did everything you could.” Several cautioned “don’t ever think it won’t happen to you.”

On the second theme of collaborating to learn, executive directors advised doing outreach to learn from other organizations, building communities of practice so they didn’t reinvent the wheel, and creating and using peer networks. One observed the value in viewing “other service providers as collaborators rather than competitors because networks are how we learn and grow.”

A small number also advised their peers to have conversations with specialists such as professional advisors, insurers, a local emergency management agency, FEMA, while some also cautioned "don't think it's just about insurance."

Finally, we asked two interview questions designed to elicit information about what emergency planning and risk reduction activities respondents felt were missing or unfinished. What was on their "wish list"? The responses were generally not very focused – few seemed to have thought this need through in advance of our question and few connected their answers to climate change. However, we did see some healthy evidence of "threat forecasting" (an important element in risk management) in the sense that they were thinking ahead about unmet needs or threats (most unrelated to climate change) such as cyber attacks, bomb threats, chemical spills, violent intruders, or military threats. While some mitigation needs were expressed (e.g., renovations to reduce utility costs), their needs were mainly about adaptation, such as adding redundancies to what they already had. Those with generators expressed a desire for second generators, those with short-term evacuation plans expressed a desire for long-term scenario planning, those with storm shelters expressed a desire to make them ADA accessible, and those who regularly carried out emergency drills were now concerned about how to carry out regular drills without traumatizing clients.

4.3 Explanations for the board's role in disaster preparedness

The earlier study motivating these follow-up interviews used a path analysis to conclude that emergency planning was most centrally reliant on board action, rather than on a nonprofit executive's own views on climate change or their agency's past experience with disasters and service disruptions (Gazley & Cash 2024b). So an important question in this follow-up study was to discern the reasons for board involvement or lack of involvement in climate change adaptation. The originating question in the 2022 survey was "In the past ten years, has your board of directors held any formal planning conversations about how climate change or changes in weather patterns might affect your services or clients?" The majority replied they had not. A statistical analysis indicated that the ten percent of organizations reporting their boards had held such a discussion were substantially more likely to be engaged in emergency planning after controlling for organizational capacity, past disaster experience, and other potential pre-conditions (Gazley & Cash 2024b).

The follow-up 2024 interview question asked for reasons why the board had discussed climate change (five interviewees) or had <u>not</u> discussed climate change (27 interviewees). The interview protocol also included screening questions to verify that these boards could be characterized generally as "governing boards" with responsibilities for strategic priorities such as service continuity as opposed to "working boards" with operational roles. The majority self-described as having "governing" boards. We also asked "who is involved in planning for emergencies in your organization? Yourself, staff, the board, or a combination of these?" Here, two-thirds of executive directors reported emergency planning was a staff responsibility, while the remainder noted some role by the board in planning or approving plans.

All but one of the individuals from the "board has discussed climate change" group provided explanations closely related to environmental awareness, noting other events (the pandemic, a renovation) had motivated a discussion about solar panels or recycling. Only one noted the discussion came out of direct experience with a natural disaster. We conclude the main motivators appear to be convenience and environmental awareness rather than self-protection and weather resilience. In the parlance of climate action, boards that have acted on climate change concerns are focused on mitigation rather than adaptation.

In the larger group where the board had not held that conversation, executive directors offered three types of explanations. In order of frequency response, planning for climate change was not viewed as a strategic priority, or it was viewed as potentially too "political" to discuss, or they felt the board didn't have the capacity to hold the discussion. On the first theme, respondents noted the issue was too far removed from their day-to-day work, which took priority: For example, "[our community has] a lot of systemic issues. We're looking at one in three children living in poverty." Another was even more frank: "Climate change is not in our Top Ten." Surprisingly, even organizations relying substantially on outdoor programming doubted their boards would view a discussion about climate change's impact on their services as "mission-centric". Another stated that "It would really be questionable as potentially a mission drift discussion."

The second set of responses revealed that they knew or felt they could assume that their board of community representatives was too politically diverse or too conservative to hold such a discussion. Several noted they had board representation from a business with interests antagonistic to climate action. A third, smaller group of respondents noted their board didn't understand the agency's vulnerabilities or had a false sense of security, or the board lacked a 'change agent' willing to lead that discussion. As this question was about the respondent's perception of their boards, answers such as this reveal an important gap between what the staff/ED see as important versus what they feel they can discuss with the board.

We next asked our interviewees, "Regardless of your answer on board discussions, what might motivate a board to avoid or to initiate a conversation about climate change's impact on the organization?" On the question of what might motivate a board to <u>avoid</u> this conversation, in frequency order, we identified two major themes. First, executive directors noted the need to avoid a politically divisive issue, although the reasons varied considerably. Some claimed a neutral position best reflected Indiana's "Hoosier Nice" culture, while others were more concerned about stakeholder backlash. One interviewee explained, "We don't want to offend any of our donors by taking a public stance on a political issue like that." Others claimed there was mission relevance in remaining neutral, arguing "we need to be partners with everybody." Three other executive directors recounted past failures or uncomfortable situations in the boardroom involving politically divisive issues raised by staff.

A second theme reflected concerns about organizational capacity or relevance of the topic. Five individuals stated climate change was not mission-related or not a concern in a non-coastal community. But some also noted the board's lack of knowledge about the topic.

On the question of what might motivate a board to initiate this conversation, we identified three themes, in frequency order. First, the majority of executive directors suggested that direct impact of extreme weather on the agency would motivate the board to act. One noted, for example, that if more severe storms caused the agency to lose electrical power each and every year for multiple days, the board would view climate change as an ongoing threat. Some noted the board could be motivated by threats to client/staff safety, but others viewed the motivation as financial. They suggested the board would act when they saw the possibility for financial savings or when they understood severe weather increased their own liability. A second group looked for a change agent or catalyst, suggesting they needed a donor or external agent to raise the issue, or needed someone on the board willing to initiate the conversation. A third, smaller, group noted the board needed education first, to understand the threats and their relevance to services.

4.4 Networks as sources of adaptive capacity

The path analysis mentioned earlier which motivated these follow-up interviews found that network activity was also related to disaster preparedness, after controlling for other factors (Gazley & Cash 2024b). It came as no surprise, then, to find that nearly 90 percent of the sample of high-planners from which these interviews were drawn reported active network memberships. The interviews also match this distribution, with 28 of 32 reporting network activity. Executive directors mentioned various provider networks, county human service networks, United Way networks, or national affiliate networks, as well as statewide service associations. A small number also mentioned past or current experience with a COAD or VOAD network.

All 32 executive directors reported many general benefits in network membership. They mentioned positive impacts on service quality, client access, coordination, access to donors, gains in credibility, and success in advocacy. The most frequent general benefit mentioned related to organizational learning, including access to information and to best practices.

When asked whether belonging to a network had benefitted their organization in ways specific to emergency planning and preparedness, only five answered in the negative while 27 reported disaster-related benefits. They noted most frequently how their service networks offered resources that helped them plan in advance of disasters, including training opportunities and community risk information, and second most frequently, how their service networks had helped them during or after disasters, including service coordination and other needed resources. One noted, "we've experienced fewer emergencies where we felt unprepared." Another observed, "the benefit of a disaster network is that people realize this does happen to people, and they do have to take action."

5 DISCUSSION

Limitations to this analysis are numerous. The sample is small, so the theory it proposes should be tested by other researchers to improve the external validity of our findings. As noted earlier, open-ended questions depend on recall, although we have designed the study with prompts to maximize recall. There are also limits to what we can learn about climate change adaptation from a study designed mainly to understand emergency preparedness behavior. We designed our study to minimize references to "climate change" because it is not a politically neutral word in the U.S. and can trigger response bias. Nonetheless, although safety consciousness is not the same as climate awareness, it may generate comparable benefits for organizational resiliency.

To summarize the key takeaways in terms of both theory-building and practitioner action, this study first set out to discern the characteristics of those agencies that seem to be taking emergency planning seriously, or at least more seriously than their peers. The profile of a high-planning agency seems clear to us. While their emergency training may be somewhat *ad hoc*, their leaders have long tenures, view emergency planning as mission-related and update plans regularly. They see beyond day-to-day needs to prioritize service continuity, and they seek outside professional resources. They are 'systems thinkers' who use their service networks to build risk knowledge and capacity.

However, the burden of this risk management falls on staff, rather than boards. While strong staff leadership is part of the solution, it is highly problematic to find that climate adaptation is viewed as either too political or too irrelevant an issue to rise to board action. In other words, climate adaptation is being treated as an operational rather than strategic issue, if it's being treated at all. In the nonprofit hierarchical structure, boards of directors are crucial linchpins in climate adaptation. But only boards that view climate change as directly connected to the organization's mission or financial health appear ready to act on their fiduciary duty of care to address extreme weather as a strategic issue. Given the high level of seniority in this sample, one might be tempted to attribute board inaction to executive deference. But it is also problematic that executive directors don't feel that they can freely discuss what they know to be vulnerabilities with their board members and external stakeholders.

At the beginning of this article, we posited that through the lens of resource dependency theory, nonprofits could plan for climate adaptation because stakeholders demand it or fail to plan out of fear that stakeholders would reject an action viewed as politically problematic. Our analysis points to the latter as one key driver of board (in)action. In the sector, political neutrality is normatively viewed as better for stakeholder relations, and our interviews confirm this fact. But we were struck by how few of these agency heads could portray climate change in a realistic and non-ideological context. One individual explained: "We tend to not put any kind of a ideological overlay on anything that we do…. So us leading some kind of discussion … about climate change would be something that would be us moving outside of the typical way that we operate." As noted, a number also viewed climate change as something happening "elsewhere", e.g., on seacoasts or in deserts.

But we also see hopeful evidence of systems theory and protection motivation theory as drivers of organizational action. Organizations that plan are led by individuals with a heightened situational awareness. Some plan more because they have had direct experience with severe weather or another hazard, but more plan because they have managed to connect the global to the local, to connect the dots between natural hazard threats and organizational vulnerability, and take steps to mitigate these threats.

Even so, most viewed emergency preparedness as mission-focused but most viewed climate change adaptation as not mission-focused even when the expanded viewpoint would lead to the same self-protective actions. One respondent, when asked why their board had not discussed climate change's potential impact on the organization, admitted the disconnect in their reasoning, "it's probably just not on the radar. We are very mission-focused. So you know, dealing with the services that [our clients] need, and you know, their quality of life...*which obviously maybe that should be part of the discussion…."*

The other apparent driver of disaster preparedness was participation in a service network, which appears to increase situational awareness and offer sources of adaptive capacity. Participation in a network, then, should be promoted both among practitioners and by policymakers. We do note, however, that within these networks, respondents were relying on peers as much as disaster professionals. While peer networks bring grassroots expertise, a substantial portion of our sample appeared to be disinterested in seeking governmental help in emergency planning related to natural disasters, even while these executives express a desire for more leadership and resources from government experts.

With respect to the barriers they explain, these findings have strong connections to the larger literature about public views on climate adaptation. For example, a National Academies report on U.S. disaster resilience (2012, p. 41) suggests that effective risk management can be hampered by five factors. First is risk perception. In the context of climate change, individuals may be unaware of or underestimate the hazards they face. Second is "status quo bias", wherein they defer decisions and maintain current behavior. Third is "myopia", wherein individuals are focused on short-term returns that cause them to fail to invest in risk-reducing actions that could also be financially justified if they took a broader view on planning. Fourth, they may be using decision-making tools that are too simple to generate good decisions, instead of investing in more rigorous tools such as cost-benefit analyses. Fifth and last, information that communicates risks may not have been transmitted to the key decision-makers, or may not have been communicated in a way that compels action. To this list we add a sixth possibility, that "divergent perceptions regarding the attribution and implications of climate change" hamper risk management (Hicke et al. 2022, p. 1982).

We conclude with theory-based propositions that we hope other researchers will take up in more robust ways:

Through the open systems lens…

> Proposition 1: Systems thinkers (staff *or* board) are more likely to identify climate change as mission-related and build proactive plans and capacities to meet its challenges.

Through the governance lens…

> Proposition 2: Most of the burden of disaster planning falls to staff as an operational task.
>
> Proposition 3: Governance models that emphasize the board's responsibility for strategic issues serve as barriers to staff's ability to hold these conversations about risk management with their boards.

Through the risk management lens….

> Proposition 4: Climate change will be viewed as a strategic priority across the nonprofit sector once it affects organizations directly and regularly.
>
> Proposition 5: COADs and service networks are helpful but incomplete networks when it comes to addressing climate change adaptation. The solution may be for governmental resources to work through *both* normal service networks *and* COADs to address risk management.

Through the resource dependence lens…

> Proposition 6: Boards which accept their responsibility to safeguard organizational resources may use this as a rationale for climate adaptation, but they are more likely to avoid climate action for the same reason, out of fear of stakeholder backlash.
>
> Proposition 7: Staff who have raised politically controversial topics to the board before without a successful outcome are less likely to bring up climate change adaptation.
>
> Proposition 8: Staff and boards operate under different resource pressures that cause them to weigh the risks and rewards of addressing climate change differently.
>
> Proposition 9: Enlisting credible change agents, such as a donor, as allies in climate change adaptation may encourage a board to stop viewing stakeholder views as political threats to climate change adaptation.

These propositions can be used to organize a theoretically-driven, hypothesized model of nonprofit action on climate adaptation (Figure 1). While the "drivers" generally represent potential assets, with a potentially positive relationship to climate adaptation, the influence the "mediators" play on planning behavior depends on a board's and executive staff's weighing of the risks and benefits of climate action.

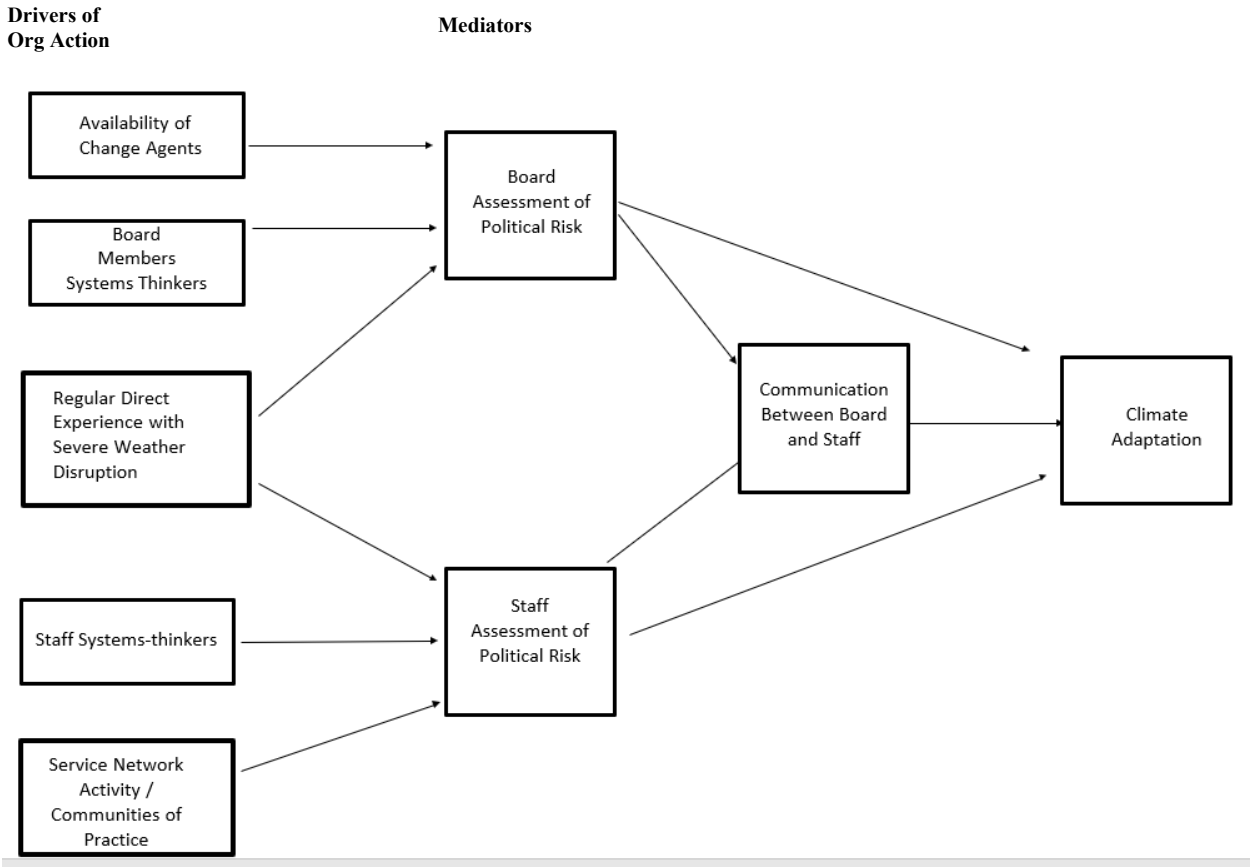

Figure 1. Hypothesized Model of Nonprofit Action on Climate Change Adaptation

6 CONCLUSION

This study offers much practical value for nonprofit leaders and policymakers. First, it identifies the robust and diverse set of benefits that service networks offer to members. Second, the study identifies a gap in communication and leadership from government disaster professionals and suggests that service networks offer opportunities to communicate best practices, which is where most nonprofits are receiving the planning and response resources they need. We recommend that county emergency managers and other professionals make an effort to communicate community risk through service networks and not just COADs.

To conclude, this study reveals a central dilemma for success in climate adaptation within the nonprofit sector: boards may not be willing to proactively adapt to climate change if they view it as politically risky, while staff leadership also may view raising the issue with the board to be

risky. The current political period is highly inimical to climate science, making progress even more challenging. Nonetheless, this study suggests the solution is mainly local, and rests in helping nonprofit leaders "connect the dots" between lived experiences and their potential outcomes for service continuity, and providing them the expertise and resources to make informed decisions. It may be possible to "de-politicize" climate change conversations at the board level when the focus is on the greater potential harm of local disasters to clients.

The main constant in this scenario is that severe weather will continue to increase in frequency, so nonprofit leaders must rise to the challenge if they are to maintain service continuity for the vulnerable people they serve.

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APPENDIX A: 2022 survey questions on which the 2024 interviewees were selected

Emergency Plans: "Does your organization have any action plans or emergency plans to address each of the following areas related to emergency events? We define a "plan" as anything written and included in workplace training, and recognizing that you may call your plan by a different name."

Possible responses (9): Tornado or severe weather safety, Pandemic service continuity, Emergency evacuation, Emergency communication, Service continuity, Cybersecurity, Earthquake safety, Climate action or environmental sustainability, Mutual aid planning with other agencies.

Risk Reduction: "In the past ten years, to the best of your knowledge, has your organization done any of the following to reduce risk exposure?"

Possible responses (8): Created a system to back up computer files and/or store data off-site, Changed your policy on cash reserves to ensure you have what you need in an emergency, Purchased or upgraded an insurance plan to cover additional risk, Participated in any kind of emergency response training (examples : a table-top exercise, a simulation of an emergency, International Shakeout Day, etc.), Conducted an independent risk assessment/risk audit, Rehabbed any part of the facilities to strengthen them against wind or water damage (examples: new roof, waterproofed basement), Purchased a generator to ensure electrical continuity, Relocated any part of service sites or infrastructure to reduce risk exposure.

Climate Action: "Which of the following concerns related to climate change have been part of your organization's planning during the past ten years?"

Possible responses (3): Infrastructure: Reducing energy use, more reliance on renewable energy, etc.; Programming/staffing: Planning for climate change, helping clients plan for climate change, etc.; Advocacy: Incorporating climate change considerations into our communications with donors or public officials.

Summary statistics: The sample extracted for interviews represented those above a mean of 8 reported preparedness activities. The extraction cutpoint was 9-19 activities. Those in the "high-performing" sample averaged 12 activities, with a range of 9-19 and a median of 11.