Compounded Vulnerability: Homeless Service Organizations during Disaster

by

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B.A. Oklahoma State University, 2012

A thesis submitted to the

Faculty of the Graduate School of the

University of Colorado in partial fulfillment

of the requirement for the degree of

Master of Arts

Department of Sociology

2015

The thesis entitled:

Compounded Vulnerability: Homeless Service Organizations during Disaster

written by Jamie Vickery

has been approved for the Department of Sociology

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Date: _____

The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.

IRB protocol #: 13-0572

Vickery, Jamie (M.A. Sociology, University of Colorado Boulder)

Compounded Vulnerability: Homeless Service Organizations during Disaster

Thesis directed by Professor Kathleen J. Tierney

Community-based organizations (CBOs), especially those that serve vulnerable and marginalized communities, are critical fixtures in the daily lives of their clients. When disaster strikes, nonprofit CBOs fill needed gaps and extend their roles in response and recovery activities. While studies of organizational response and cross-sector collaboration demonstrate a lack of disaster planning within many CBOs, few of these studies focus on CBOs' disaster experiences—specifically of those that serve vulnerable and marginalized groups such as the homeless. In addressing this gap, I argue that homeless service organizations (HSOs) experience compounded vulnerability because of social and structural factors that place them in a weakened position during disaster. Not only do structural conditions weaken the ability of these organizations to meet the needs of a growing client base, but the marginalized status of their clients also requires unique considerations for these organizations during disaster, resulting in compounded vulnerability. Using the 2013 Boulder Floods as a context in which to examine these processes, I draw on over seventy hours of participant observation and data from 14 semi-structured interviews with staff members from homeless adult service organizations. Finally, and as part of a larger ongoing research project, I offer disaster preparedness and response recommendations for nonprofits and CBOs serving homeless populations.

Dedication

This thesis is dedicated to my grandfather, Carl Jay Brown. Without his unwavering support and guidance, I would surely not be where I am today.

Funding Acknowledgement

A special thanks to the University of Colorado Boulder Natural Hazards Center (NSF Award #1333610), especially the incredible team at the Natural Hazards Center, for providing space, guidance, and support throughout the writing of this thesis.

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INTRODUCTION

Social service organizations, such as those that serve the extremely poor, are crucial assets for their clients, as they connect their clients to critical services such as food, shelter, rental assistance, and mental health support that could not be provided to them otherwise. While research has been conducted on organizational preparedness and mitigation activities (Chikoto, Sadiq, and Fordyce 2013; Ritchie and Tierney 2008; Ritchie, Tierney, and Gilbert 2010; Spillan and Crandall 2002) as well as cross-sector collaboration during disaster (Simo and Bies 2007; Kapucu 2007), few studies have analyzed the disaster response and short-term recovery of CBOs serving marginalized and vulnerable groups such as the homeless (for an exception, see Settembrino 2013). I address this research gap by using the 2013 Colorado floods as a context in which to examine the social processes affecting CBOs that serve extremely poor and homeless individuals. This study is part of a larger research project that also focuses on the experiences of homeless individuals in the 2013 floods. For this thesis, I draw on participant observation and interview data with staff members from CBOs that aid the adult homeless population in the city of Boulder. Three main research questions guide this work: What are the disaster experiences of homeless service organizations (HSOs)? What influences HSOs' decisions to prepare or not prepare for disasters? And do they face unique difficulties in providing services during a disaster event, and how, if at all, are those difficulties related to their clients' marginalized status?

I argue that because of ongoing pressure placed on CBOs to serve as the safety net for the nation's welfare state, their ability to provide sufficient resources for the populations they serve is increasingly strained. This prevents them from adequately preparing for disaster events, largely because resources (e.g., money, staffing, and time) are tight and are allocated to more pressing, direct services—as they also increasingly struggle to meet the needs of a growing client

base. The services HSOs provide are critical in the daily lives of their clients, making it unlikely that disaster preparedness would be a major priority or concern. Further, I argue that because of the marginalized status of their client base, HSOs are likely to experience unique challenges in preparing for, responding to, and recovering from disaster, in contrast with CBOs that do not serve homeless clients. While this argument acknowledges the numerous challenges faced by CBOs of all types, it does call for increased attention to the unique contexts in which HSOs operate. These two arguments explain the compounded vulnerability of HSOs during disaster, in that they connect the *structural* and *client-based* causes of disaster vulnerability.

In what follows, I first review the literature on nonprofit organizations and disaster and introduce the concept of compounded vulnerability, particularly among HSOs. Next, I provide background information on the study and explain the research methodology. I then present findings from data gathered through interviews and participant observation. I conclude by discussing how this study can inform recommendations for disaster planning. I also propose directions for future research.

LITERATURE REVIEW

Nonprofits and Disaster

Nonprofit organizations act as critical resource hubs for vulnerable populations in a multitude of ways—for example, by providing food and rental assistance, career training, and a number of other health and human service related resources (Chikoto et al. 2013; Ritchie and Tierney 2008; Tierney 2013). During a disaster, nonprofits fill gaps and address unmet needs of disaster survivors, such as case management, food services, and resource distribution. National and local nonprofit organizations are frequently involved in response and recovery activities following a disaster, even if these activities are not among their primary functions (Green, Kleiner and Montgomery 2007; Stys 2011). Indeed, nonprofit organizations that operate as social service providers serve as a crucial link to the nation's welfare state and an important community asset during times of disaster (Chikoto et al. 2013; Ritchie and Tierney 2008; Tierney 2013). As Tierney (2013) notes, CBOs are a part of society's "critical civic infrastructure" and are called upon in efforts to achieve societal disaster resilience.

On the matter of disaster preparedness and contingency planning, nonprofits face constraints in their ability to prepare for disasters for various reasons, with funding and a lack of time and resources being perhaps the most common barriers (Chikoto et al. 2013; Ritchie and Tierney 2008; Ritchie et al. 2010; Stys 2011). Nonprofits rely to a substantial degree on donations from private donors to continue their operations, but donors typically place restrictions on how nonprofit organizations can use their money (Froelich 1999). For example, disaster planning and preparedness are not typically considered to be pressing concerns; rather, funds target nonprofits' existing programs and new initiatives. Conversely, as Ritchie and Tierney (2008) find in their study of disaster preparedness among San Francisco nonprofits, some donors

may have funding conditions in place that require organizations to have disaster plans. However, this requirement is largely dependent on the regional context and donor type.

Nonprofits' inability or unwillingness to prepare for disaster may also be rooted in daily pressures on staff members or a lack of knowledge on how to effectively plan for a disaster (Ritchie and Tierney 2008; Stys 2011). Based on interview data from San Francisco nonprofits, Ritchie and Tierney (2008) report that disasters are not a primary concern among many nonprofits; rather, meeting basic needs and a growing client base continue to be pressing issues that impede disaster planning, as time and human resources needed for planning are unavailable. As a result, they find that San Francisco nonprofit organizations are largely underprepared for a major disaster. Further, the role of nonprofits in overall community disaster planning is often unclear, owing in large part to a lack of planning and coordination among organizations, and between public and private sectors, as well as a historic lack of inclusion of the nonprofit sector in communitywide emergency planning (Stys 2011).

It is essential for nonprofits to be able to function when a major disaster strikes, as these non-governmental organizations comprise the "critical civil infrastructure" that assists in maintaining the societal safety net for individuals who often have difficulty getting their basic needs met during non-disaster times (Chikoto et al. 2013; Ritchie and Tierney 2008; Ritchie et al. 2010). Without access to these organizations, individuals who rely on them may have minimal options for receiving help. And if a major disaster occurs, these individuals will likely have an even greater need for the assistance that nonprofits provide (Tierney, 2013; Tierney and Ritchie 2008). As Ritchie and Tierney (2008:70) succinctly explain, "[t]he greatest need for immediate aid [after disaster] will come from the most vulnerable, who depend on the social safety net provided by CBOs [community-based organizations] on a daily basis."

Compounded Vulnerability of HSOs

Poverty in the United States and a Weakening of the Safety Net

To understand the contexts in which HSOs operate, it is first important to examine the structural factors that have produced homelessness in the United States. Poverty has risen steadily in metropolitan areas, with the suburbs witnessing the highest increases in poverty rates (Kneebone 2014; Kneebone and Holmes 2014; Williams 2010). Roughly 15% of the U.S. population now lives below the poverty line—which is partly attributed to the economic downturn of 2008, the growing income inequality gap, and a number of other interrelated factors (Kneebone and Holmes 2014; Tierney 2013; Yen 2013). Regarding homelessness, over 600,000 people were counted as homeless in the U.S. in 2013, according to a U.S. Housing and Urban Development report.

Growing income inequality is perhaps the most notable factor contributing to homelessness. As Poppendieck (2000: 198) argues in her work on hunger and inequality, "hunger, like homelessness and a host of other problems, is a symptom, not a cause, of poverty. And poverty, in turn, in an affluent society like our own, is fundamentally a product of inequality." Growing inequality has led to disparities among groups that not only result in uneven wealth/income distribution, but also a host of other problems such as limited access to education, affordable housing, healthcare, and employment opportunities.

Other factors besides poverty also contribute to homelessness in the U. S. These factors include a decrease in the supply of affordable housing, rents that are increasing even as the incomes of low-income households decrease, a substantial drop in federal support for low-income housing, and a decrease in public assistance. By causing foreclosures and unemployment to increase substantially, the financial crash of 2008 has also been a significant

contributor to homelessness and housing insecurity. (National Coalition for the Homeless 2009). Because of these developments, nonprofits serving the extremely poor have struggled to keep up with a growing population in need of basic resources (Huffington Post 2011; Poppendieck 2000; Salamon 2012; Tierney 2013; Williams 2010).

Particularly as societal resilience is increasingly mentioned as an ever-growing need in communities, nonprofit organizations and CBOs are viewed as crucial sources for achieving disaster resilience (Tierney 2013). However, growing income inequality and a decrease in charitable giving to nonprofits as a result of the recession have increased the dependence of homeless individuals and the working poor on nonprofits and CBOs while simultaneously weakening the ability of those organizations to meet their needs—including nonprofits' ability to create disaster plans (Ritchie and Tierney 2008; Tierney 2013). "These changes," as Tierney (2013: 11) explains, "represent a significant negative impact on community resilience on a day-to-day basis that will almost certainly translate into lower levels of resilience in future disasters."

Individuals who utilize the services provided by nonprofits and CBOs often rely on these organizations on a daily basis. During disaster, clients' needs will likely be greater and their reliance on non-governmental organizations will increase. However, the present social and economic conditions in which nonprofits operate make it increasingly difficult for these organizations to meet the day-to-day needs of their clients, let alone during disaster. Regarding efforts to increase disaster resilience through engaging nonprofits, Tierney observes that "[i]t is especially ironic that civil society institutions, especially those that serve the most vulnerable, have been "discovered" as major contributors to community and disaster resilience at the exact time when they are most at risk." She goes on to explain, "[f]or them, the disaster is already

present, in the form of declining budgets, uncertain funding streams, and ever-expanding service demands" (2013:17).

Homeless Service Organizations

For the purpose of this research, the term "homeless service organization" (HSO) refers to any organization that serves homeless individuals in a specialized manner—meaning that all or some of its programs are specifically intended for homeless persons. HSOs are essential assets for their clients, providing vital services such as food, shelter, healthcare, transitional housing, work programs, and therapy. HSOs provide not just an emergency safety net for homeless individuals, but are critical for many in their transition out of homelessness. During disaster, HSOs must adapt to issues that arise at the organizational level (e.g., staffing and donations management) while also guaranteeing that the unique needs of their clients are managed and addressed—which I discuss in further detail below. For these reasons, homeless service providers are important figures in the lives of their clients during both non-disaster and disaster times.

Because there is a lack of research on HSOs during disaster, let alone organizations that serve vulnerable groups more generally, this research provides an opportunity to expand vulnerability scholarship at the organizational level and to focus on a frequently overlooked vulnerable population. While HSOs undoubtedly face constraints and concerns during disaster that are similar to those encountered by other community-based service organizations, many of their issues, as I show in the upcoming sections, stem largely from the marginalized status of the population that they serve. HSOs are in a unique predicament compared to other organizations that provide services to vulnerable groups (e.g., senior service and youth organizations) in that their clientele are stigmatized in society and do not tend to garner large amounts of community support and attention during non-disaster times.

HSOs, like many CBOs, are underprepared for disaster for a variety of reasons. This has to do with the fact that HSOs commonly experience funding and staffing issues that disallow disaster planning and mitigation—especially when disaster response and relief are not a primary function of the organization (Green, Kleiner and Montgomery 2007; Ritchie et al. 2010). Another aspect to consider concerning HSO disaster preparedness is whether or not and to what extent the potential disaster-related needs of homeless individuals are included in county or city level emergency management plans. If they are not, this begs the question of which agencies are responsible for homeless individuals during time of disaster. Scholarship on vulnerable populations and emergency planning finds that plans frequently elide the issue of how to address the needs of socially vulnerable groups (Enarson 2007).

Homeless individuals possess a variety of social and physical characteristics that increase their vulnerability to disaster. Perhaps to an even greater extent than members of other vulnerable groups, homeless persons are likely to be marginalized both during non-disaster times and when disasters strike. In the section that follows, I briefly discuss these forms of marginalization and their implications.

A Doubly Marginalized Group: Homelessness and Disaster Vulnerability

Vulnerability stems in part from deficits in the capacity of individuals to anticipate, manage, and recover from disasters (Blaikie et al. 1994). Depending on one's social ties, financial capital, and human capital (e.g., education, social status), for example, one may be more or less likely to prepare sufficiently for, respond to, and recover from a disaster. Homeless populations are only tangentially referred to in studies on disaster vulnerability (Cutter et al. 2003; Enarson 2007), even though it is clear that they are vulnerable along several dimensions. The resources and capital that homeless individuals typically lack include, but are not limited to, financial capital,

shelter, access to transportation, and political efficacy. Notably, some homeless individuals are able to draw upon social capital from within the homeless community and through homeless service organizations to communicate and obtain information on where to access resources. However, they often have weak social capital in the sense that the social capital they can draw upon is limited in regards to effectively acquiring needed resources and services (e.g., money, food, transportation and/or housing). Additionally, PTSD, mental illness, physical disability, alcoholism, and drug abuse are other characteristics that are prevalent throughout homeless populations (for detailed discussions, see Drabek 1999; Elvrum and Wong 2012: Erikson 1995; Morrow 1999; Paidakaki 2012; Phillips 1996; Phillips and Morrow 2005; Wisner 1998). These factors can prevent homeless persons from acquiring and maintaining financial, social, and human capital resources that might be beneficial during times of disaster.

The stigma associated with homelessness further exacerbates this groups' vulnerability to disaster. Individuals in mainstream society frequently "other" the homeless by viewing and treating them as less than human, dangerous, and a public nuisance (Elvrum and Wong 2012; Erikson 2005; Irvine et al. 2012; Phelan et al. 1997; Wisner 1998). In a disaster context, the effects of the homeless stigma may limit such individuals from acquiring shelter, receiving aid, and contributing to preparedness, mitigation and recovery planning processes (Bolin and Stanford 1993; Fothergill and Peek 2004; Phillips 1996; Wisner 1998). For instance, after witnessing a homeless woman being prevented by a police officer from entering downtown Santa Cruz, which was heavily damaged by the 1989 Loma Prieta earthquake—an area where the woman typically resided—Phillips (1996: 94) asked, "[w]here are the homeless to go after disaster?" Phillips's research brings to the forefront the issues associated with homeless individuals residing in public spaces and how societal policies and institutions designate

"socially appropriate" places for the homeless that limit their agency in responding to disaster as well as their efforts to escape homelessness. As she argues:

> Even if it is a doorway, it is still a place of one's own, a source of social and physical identity and a potential stepping stone back to housing. The idea that disasters do not affect the homeless is based on faulty logic and only prolongs the homeless' search for permanent places. The idea that public places do not belong also to the homeless denies a last connection to the self and to others (100).

Such exclusion has only become more common. Once constructed as a national social issue deserving of attention through a broad spectrum of programs, homelessness has transitioned in recent years to a problem that should be addressed through "anti-homeless" legislation and criminalization (NLCHP and NCH 2009). Such legislation has limited the ability of homeless individuals to seek consistent shelter and make money via panhandling, to name but a few examples. As Spurr (2014) explains, "[c]itywide behavioral bans prohibit sleeping in public, begging in public, loitering, sitting, or lying down in public spaces, food sharing, and sleeping in vehicles, among other behaviors." These developments, in conjunction with increased dependence on social service organizations for providing basic needs, weaken efforts to remediate homelessness and poverty. HSOs are operating within a sociopolitical context that places increased demands on them while not guaranteeing that they receive the resources necessary to meet such demands.

Structural issues of increased dependence on CBOs and nonprofits, compounded by an increasingly hostile and unstable environment for the homeless and working poor, result in heightened vulnerability for both HSOs and the populations that they serve. Extremely poor individuals have been pushed further to the margins, overwhelming nonprofit organizations that serve the needs of the poor, thus weakening our nation's social safety net. The effects of a weakened safety net combine with the vulnerabilities of homeless individuals, resulting in a compounded vulnerability that disables HSOs from effectively addressing their clients' needs

during disaster. Just as vulnerabilities such as being non-English-speaking and poor combine to form what Morrow (1999) refers to as compounded vulnerability, organizations can also experience compounded vulnerability that puts them at increased risk during disaster.

BACKGROUND OF THIS STUDY

Homelessness in Boulder, CO

Homelessness in Boulder, Colorado, is a frequent topic of discussion among community leaders, residents, and the local media. It is commonplace to see individuals panhandling on the corners of intersections, asking for donations along the city's historic Pearl Street Mall, and resting in a number of local parks. Many homeless persons reside along or frequent the areas surrounding Boulder Creek, which is the main creek that runs through the City of Boulder and into surrounding towns.

The Metro Denver Homeless Initiative (MDHI) annually conducts a "Homeless Point-In-Time Study" that gathers statistics on the current state of homelessness in seven major counties surrounding the City of Denver. In that area, 11,167 homeless men, women and children were accounted for on the evening of January 28, 2013 (Metro Denver Homeless Initiative 2013). While there are a number of issues associated with quantifying the homeless population, this survey provides a rough figure on the state of homelessness in the Denver metro area—including factors such as demographic information, length of homelessness, reason for homelessness, and a number of other variables. At the time of the survey, there were 2,366 homeless individuals recorded in Boulder County—second only to Denver City and County, which had an approximate count of 4,904 homeless individuals. The 2014 annual Point-In-Time survey conducted on January 27 demonstrated a decrease in homelessness, with 850 individuals identified in Boulder County on that particular evening (Metro Denver Homeless Initiative 2014). However, for that survey MDHI reported an unusual amount of volunteer no-shows, fewer surveys distributed, and declines in survey participation, as well as extreme weather that may have substantially altered results.

Clearly, homelessness is a pervasive social issue in Boulder, which is also indicated by the number and types of homeless initiatives being undertaken by the county (Boulder County (a), n.d.). As an example, Boulder County created a collaborative 10-year plan in April 2010 to end homelessness through strategies ranging from homelessness prevention, increasing public awareness and advocacy, and finding solutions for those who are chronically homeless, to improving current systems and developing new ones (Boulder County (a), n.d.). As part of the plan, Boulder County officials, homeless service organizations, and city officials from both Boulder and Longmont work together to develop agendas, facilitate meetings and guide the planning process to reduce homelessness (Boulder County (b), n.d.).

Despite this progress, the larger Boulder community has varied opinions on the homeless "issue." Based strictly on day-to-day conversations and comments in local news articles pertaining to the city's homeless, it appears that many residents are frustrated with homelessness in Boulder—with some calling for improved services and policies and others wanting to eradicate homelessness through more forceful means (e.g., intensified camping bans, panhandling bans). Tangible evidence of some community members' distaste toward the homeless can be found in the ongoing issues the community has with local HSOs. Recently, a project was completed in Boulder that aims at putting homeless individuals into "housing first" in order to work toward transitions out of homelessness. However, this project was met with much backlash from local residents about its construction in their neighborhood (Meltzer 2014). This NIMBY-ism, or "not in my backyard" mentality, is prevalent in Boulder, with many citizens wanting solutions to the problem of homelessness, but not wanting to bear what they view as the costs of eradicating homelessness, in terms of stigma and putative declines in

property values (see Orr 2013 for more detailed discussion of NIMBYISM and homeless housing solutions).

The Colorado Floods

The floods that struck Colorado in September 2013, which constituted the largest disaster in the state's history, took the lives of ten people and left thousands of individuals displaced, with damaged homes, cities, and towns. Media reports of the flooding categorized the events as "biblical" and labeled the disaster as a "100" or even "1000 year flood" (Hughes and Welch 2013; Memmott 2013; Sederholm 2013). While hyperbole was common in many media reports, the physical and emotional devastation caused by the floods was nonetheless traumatic, and there was severe damage throughout parts of Colorado. During the days of September 11 to September 15, rains intensified and floodwaters ravaged over twenty counties. The unique nature of the flood event was a result of a "1000 year" rainfall event, in which a storm system hovered for an extended period of time over the northern and central parts of Colorado (City of Boulder 2014; Walsch 2013). This caused pockets of devastation outside of the areas specified on flood plain maps, which focused predominantly on rain-related and snow melt flooding along major creeks and associated waterways (see Appendix E for a 2013 map of urban flooding in Boulder).

The flooding caused extensive damage across the state, displaced 18,000 residents, and entirely severed some communities, resulting in the largest airborne evacuation effort since Hurricane Katrina (FEMA 2013; Jergler 2013). A year after the floods occurred (September 2014), the Colorado.gov (2015) website reported updated flood statistics, explaining that there is an estimated "$3 billion in damage, including $1.7 billion to the state's infrastructure, $623 million to housing and $555 billion to the state's economy." Focusing specifically on Boulder County and the City of Boulder, the floods further reduced affordable housing. Because of the

extent and severity of the floods, affordable housing, which had already been identified as a pressing need for the community, continues to be of ongoing concern and has become an increasingly complex issue (Wallace 2013). Overall, because of the flooding, thousands of homes were damaged or destroyed—with 219 destroyed in Boulder County.

Although there was a substantial amount of flooding in many areas within the state, the scope of this study is limited to Boulder County with a focus on the City of Boulder, because that city's homeless population and its services for homeless individuals are unique in comparison to many other Colorado locales. This is due in large part to the prevalence of homeless individuals in the area and the extensiveness of the county's homeless initiatives (Boulder County (a), n.d.), as well as the variety of organizations in place for homeless and low-income populations, which I discuss below. Boulder County was also one of the hardest-hit counties in the state, which adds to the rationale for focusing specifically on that area.

Homeless Service Organizations in Boulder

Boulder County offers a multitude of resources for homeless individuals, with a majority of these organizations located in the City of Boulder. While my study focuses on five homeless *adult* service organizations, I provide context by discussing the types of services and organizations that exist within the county to demonstrate the extensiveness of services in place for the homeless population more broadly.

Currently, roughly twenty HSOs, initiatives, and shelters operate in Boulder County, with seven operating in the city of Boulder.[1] These organizations vary in the types of services they provide (e.g., meals, emergency shelter, housing assistance, healthcare) as well in size and the

[1] This information was drawn from multiple websites and is not exhaustive due to the fact that some local initiatives, for example, may not have webpages or may not be recognized by the shelter listings web page.

type of client base they serve. For example, some organizations strictly focus on the needs of homeless adults, while others predominantly assist homeless youth and victims of domestic violence and their families who are forced to seek safety by leaving their homes. Some organizations that operate as emergency or day shelters are only open during specific times of the year—typically from October to mid-April—and during certain times of the day.

The services in place for the Boulder homeless community appear to cover a wide range of needs. While there is overlap in what some of the organizations provide, each organization specializes in addressing specific issues faced by the homeless community such as food, emergency shelter, transitional housing, rental assistance, and medical services. The five organizations that are the focus of this study include emergency and day shelters, one mental health-focused organization, and one faith-based organization (Table 1.).

RESEARCH METHODS

Data for this thesis came from a larger project examining the effects of the 2013 Boulder floods on HSOs and the homeless community in Boulder more broadly. The study design of the larger project includes a variety of methodologies: 1) semi-structured interviews with staff from organizations that serve the homeless and public officials who serve the homeless in Boulder; 2) participant observation at shelters and HSOs; 3) unstructured interviews with individuals who use resources from HSOs; 4) unstructured interviews with homeless individuals in Boulder who may not be receiving aid through social service organizations; and 5) unstructured group interviews with homeless participants who may or may not use resources provided by HSOs. The findings I present here come from data collected through semi-structured interviews with staff members from HSOs and participant observation at three HSOs. I describe these methods in further detail below.

Semi-Structured Interviews

I conducted semi-structured interviews with staff members from January 2014 to October 2014. The interview sample includes 14 individuals from four HSOs and one homeless initiative in Boulder (see Table 1. for information on those organizations). In order to take all possible measures to uphold participant confidentiality, I refer to these organizations with the pseudonyms Boulder Helping Boulder, House of Hope, Boulder Emergency Refuge, Boulder Professionals, and Homeless Women's Outreach throughout the text. Where appropriate, I use pseudonyms to refer to the participants in this study.[2] The responsibilities of these individuals range from staff that has daily interactions with homeless clients to those who hold more

[2] The Institutional Review Board at the University of Colorado at Boulder approved this study. All participants were made fully aware that participation in this study was voluntary and that they would not receive compensation for participation.

administrative, executive responsibilities at their respective organizations. Interview questions were divided along four main themes: the organization's activities and services, the organization's experiences during and after the Boulder floods, the disaster planning activities of the organization, and lastly, questions pertaining to the organization's clients.[3]

Table 1. *Overview of Organizations*[4]

Organization	**Key Service(s)**	**Number of Paid Employees**	**Clients Served on Average Per Year**[5]	**Number of Interviewees**
Boulder Helping Boulder*	Emergency shelter, transitional housing,	16	1,300	5
House of Hope*	Day shelter, work programs, transitional housing, resource center	45	1,000	4
Boulder Emergency Refuge*	Emergency shelter	Seasonal, roughly 7-10 each season	1,200	2
Boulder Professionals	Mental health services—psychiatry, therapy, prescription	400	18,000	2
Homeless Women's Outreach	Women's support group, faith-based organization	No paid staff	Roughly 6-7 individuals per week.[6]	1

The length of the interviews ranged from 30 minutes to one hour and 20 minutes, with the average interview time being roughly 51 minutes. I recruited participants for semi-structured interviews primarily through direct contact—either through email or face-to-face interactions and through both purposive and snowball sampling techniques. For example, after contacting or meeting with staff, some offered recommendations for future potential interviewees both within

[3] Questionnaire is available from the author upon request.
[4] Organizations in the table with "*" following their name indicate that they were also participant observation sites.
[5] These numbers are rough estimates provided by organizations, and they represent the number of unique clients per year.
[6] This is a relatively new, informal group that lacks data on participants.

and outside of their organizations. Interviews were conducted at locations that were convenient for participants (e.g., at their respective work locations or local coffee shops).

Participant Observation

Emerson (2001) argues that it is crucial to be actively involved with daily activities at one's study site to grasp the "particular feel and constraints" of the site and observe the construction of meanings and attitudes as they unfold in a "natural" environment. I included participant observation as part of my methodology so as to gain a deeper understanding of some of the contexts in which many of my study participants spend a large portion of their time. While in the field conducting participant observation, I took on an active member role in the HSOs I studied (Adler and Adler 1987)—meaning that I had both an observational and a functional role as an HSO volunteer. My role as an active member helped to build trust and acceptance both with members of the homeless population and with the homeless service community.

I conducted over 75 hours of participant observation through volunteering at three adult HSOs: Boulder Helping Boulder, House of Hope, and Boulder Emergency Refuge. My duties within these organizations varied, but I typically participated in shelter intake processes, served meals, and assisted with distribution of over-the-counter medicine and hygiene supplies. The level of interaction during each of these duties varied. I interacted with clients at a basic level, for example, asking them what items they needed or if they needed directions to restrooms or the main desk. In more extensive interactions with clients, I conversed with them casually by asking them how their day was, if they needed anything, and so on, but did not probe as I would in an unstructured or semi-structured interview.

Participant observation allowed me to observe interactions among clients, between clients and staff, and among staff members, as well as to develop an extensive understanding of the

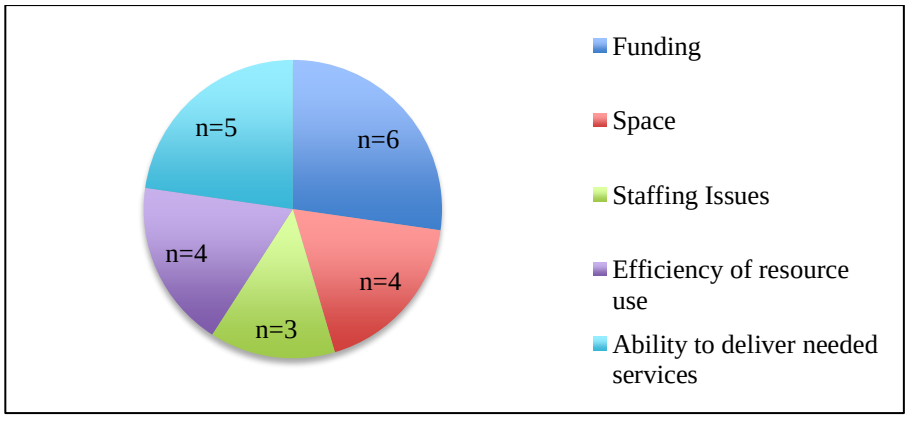
context in which many of my interviewees operate. The extent to which participant observation has allowed me to establish significant rapport with homeless individuals, volunteers, and staff members cannot be understated, and has undoubtedly assisted in successful recruitment of interviewees.

Disaster Planning

One of my key concerns was to learn more about pressures HSOs face on a daily basis. During interviews with organizational staff, I asked, "can you describe some of your organization's major concerns and challenges, other than disasters?" This question was open-ended, which allowed interviewees the freedom to provide their own perspectives in as much detail as they wished. Their responses were coded by common themes, which included funding, space, staffing issues, efficiency of resource use, and their ability to deliver needed services

Figure 1. summarizes the most commonly expressed concerns and challenges within each organization by the number of staff members that mentioned each concern. As shown in the figure, funding and their ability to deliver needed services to clients were two main concerns that came up for Boulder HSOs. However, enough space to serve clients, as well as a lack of data on the efficiency and effectiveness of the services their organizations provide are also salient concerns. These findings reflect previous findings on the growing reliance on the nation's nonprofits to provide services despite increased monetary and resource constraints (Ritchie and Tierney 2008; Salamon 2012; Williams 2010).

Figure 1. *Staff-Reported Major Concerns and Challenges within Organization*



I was also interested in learning about the extent to which HSOs placed a priority on disaster preparedness and response. Nearly all of the respondents stated that disasters were low on their organizations' list of concerns, and they offered two overarching reasons why. First, as one respondent observed, "every day is a disaster"—meaning that these service providers have to manage day-to-day emergencies with their clients, see to it that the operations of the organizations run effectively, ensure that clients' needs are being met, and carry out many other tasks with limited resources. Many of the interviewees went on to further claim that because of the ad hoc and improvised nature of many of their daily operations, they believe that their respective organizations are in a position to respond effectively to disasters if they were to occur. However, this belief may not be well founded. While they may think "every day is a disaster," their experiences, challenges, and concerns during a disaster event may be very different, and HSOs' ability to adapt to daily pressures and obstacles may not map onto the obstacles faced during disaster.

This is not to say that emergency and contingency planning are nonexistent within these organizations. Organizations with set physical locations have fire evacuation plans and contingency plans for communication with other organizations, such as the local transit service, in the event that they would need to evacuate. In fact, the summer before the Boulder floods, House of Hope and Boulder Emergency Refuge had collaborated to begin constructing an inter-organizational disaster plan for the homeless population in Boulder. Unfortunately, the plan was not yet solidified, and no parts of the "plan in progress" were used at the time of the flood.

A second reason why disasters were not considered a pressing concern for some organizations is that many were working under the impression that their homeless clients would be treated like other disaster victims during a flood event—that is, that a wide range of

emergency services would be available to them. The summer before the floods occurred, homeless service providers in Boulder had met with Boulder County officials about their concerns regarding the unique vulnerabilities of their client base. The county assured those providers that homeless individuals would be treated like housed residents in the event of a disaster. While two organizations in particular were pressing the county to incorporate the homeless community into the county emergency management plan, their representatives felt relief once they were assured that their clients would be taken care of during a major disaster:

> [w]e were educated on the county's emergency management plan…that was explained to us as [that] anyone who was in the county [during a time of disaster] falls under the emergency management plan…[we were working under the] assumption that we really didn't need to worry about major disasters because the county sort of oversees that.

However, as I illustrate in the next section, the expectation that homeless individuals would be taken care of during a time of disaster was initially not met during the floods.

When the floods hit, the organizations included in this study were unprepared for a disaster of that magnitude. While some organizations had planned at their respective locations for some types of emergencies, (e.g., by conducting fire drills), none of the organizations had comprehensive plans of their own—or inter-organizational plans—for dealing with a large-scale community disaster. This finding in Boulder is consistent with the findings associated with nonprofit disaster preparedness in Ritchie and Tierney's (2008) study of nonprofit organizations in San Francisco. They found that a majority of the nonprofit organizations they interviewed had never developed disaster plans, participated in an interagency disaster plan, or collaborated or shared resources with other organizations in preparation for a disaster. This finding it attributable to vulnerable populations' growing reliance on CBOs and CBOs' growing difficulties in addressing unmet needs on an everyday basis.

Flood Experiences of Boulder HSOs

The specific flood experiences of each organization varied considerably, but here I discuss overarching issues faced by these organizations during the flood, along with some illustrative details. Some of these experiences are not necessarily unique to HSOs; however, there are instances in which HSOs were put in unique predicaments because of the type of client base they serve.

Discrimination Against Homeless Individuals

Newspaper articles and information obtained through participant observation and interviews with agency personnel and clients indicate that, contrary to earlier assurances, homeless individuals were not afforded the same kinds of services as other community residents. During the peak of the flooding, when sirens were sounding to alert individuals to seek higher ground, many homeless persons sought refuge at a local emergency disaster shelter. When they arrived at the shelter, they were turned away because they could not provide a physical home address as part of the shelter registration process—despite claims from the county to homeless service providers that their clients and other homeless individuals would be taken care of during a time of disaster.[7] Furthermore, public transportation was down owing to flood impacts, and many people could not get to certain locations in the City of Boulder due to the pockets of flooding in the region. This meant that, upon being turned away from the disaster shelter, homeless individuals had to trek out into dangerous conditions to find alternative shelter. Sopping wet as a result of heavy rainfall over hours and days, many homeless individuals got hypothermia and other

[7] It is important to note that the HSOs that provide emergency shelter to the homeless have programs that operate year round, but do not offer emergency shelter services outside of the winter months. The floods occurred outside of the normal emergency shelter season (typically from mid-October to mid-April), which meant that many organizations were not prepared to open nor did they have the funding and/or staff available to shelter homeless persons during that time.

exposure-related illnesses and injuries. Being turned away from the public shelter was not just frustrating, humiliating, and inconvenient, but it put them at increased risk. Even after the initial incident, homeless participants who utilized the public disaster shelter mentioned that they were separated from the housed disaster victims and continued to feel ostracized. Some interviewees said that they felt unwanted and pushed to the side.

Certain community responses to the incident in which individuals were turned away from the emergency shelter appear to reflect deeper negative public attitudes toward the Boulder homeless. Within the comment pages of newspaper articles covering the event, there were several comments mentioning that housed disaster survivors would not want to be in the same shelter as homeless persons (Meltzer 2013). Statements such as "[w]ell that's one way to remove the homeless problem from Boulder," and "[y]ou would think with all that Jim Beam in their bellies, they could float with the flood" were prevalent in articles covering the event. While these comments are not generalizable to the larger community and their perception of homelessness, they are nonetheless indicative of the social "othering" process through which individuals exclude these members of society, and how homeless persons, even during a disaster event, are at risk of being further marginalized due to their social status.

Reflecting on such comments, Judy, an employee at Boulder Professionals, explains:

> [The flood] does just really make me think about how the whole community relates to the homeless community… And I do think that there is some marginalization of the homeless community, and I think they felt that a little more strongly—at least some of them did—because of their experiences during the flood.

HSOs as Advocates

After homeless individuals were initially turned away from the emergency disaster shelter, the role of some HSOs—as one participant put it—then shifted from "a communicator position back to an advocacy position." Some staff members I interviewed were working under the assumption

that they would be solely communicating with their clients about where they would need to go to access resources and shelter during a disaster event. However, they soon realized that they would need to step in on behalf of their clients during a time when they themselves were dealing with flood-related issues at home and with friends and family.

After organizational directors and board members from HSOs made calls to the disaster shelter about the exclusion of homeless individuals, the shelter eventually (within 24 hours) opened its doors to pre-disaster homeless individuals. Kelly, an executive-level employee at House of Hope expressed her frustration over the event:

> So on Thursday, we gave everyone bus fare as soon as we knew that the emergency shelter—the disaster shelter—had opened and sent everyone there. And then people started getting turned away. And that was .. sort of that false assumption that it would be seamless… I was told, "oh no of course they're welcome there" and then, "no, they're not welcome there" and "the police were called." So a lot of clients went back to [our organization]… [We] probably would have kind of closed at that point or just at least been able to stay open and not be the only place people were allowed to be. So that was the biggest challenge I think, was figuring out the whole "wait a second, we weren't prepared, because we didn't know we had to be."

Another employee at House of Hope, Sandra, explains, "They told us they could come over there. We gave them bus passes to go over there and they wouldn't take them. They treated the homeless really, really bad… *Just because they're homeless doesn't mean they don't count*." Her comment reflected the anger that many homeless service providers felt during that time, and demonstrated the need for some HSOs to step in on behalf of their clients to ensure that they received equal access to services. Throughout a majority of the interviews with staff members and clients, this incident was mentioned without prompting on my part—demonstrating the significance and resulting trauma of the event.

Kelly (House of Hope) explains how the flood affected her organization's normal activities, because staff members had to advocate for clients during a time when advocacy should not have been necessary:

> We had to do a lot of negotiating on the behalf of our clients that felt a little bit.. like we felt responsible for a segment of the community that, you know, it shouldn't just be nonprofits worrying about the poor and the physically frail… and the, you know…the vulnerable. It shouldn't just be because nonprofits do this. It was like, sort of this lack of... I think acknowledgement that these people were in a disaster and are a part of the community.

This experience exemplifies the ways in which the vulnerabilities of a marginalized community are exacerbated during a disaster event, and demonstrates the responsibility of HSOs to advocate for their clients' rights and ensure that they receive equal access to basic services. As I go on to explain in the next section, some HSOs continued to advocate for their clients even after the floods had receded.

Advocacy During Recovery: Working with FEMA

Many homeless persons lost their backpacks, tents, clothes, food utensils, and campsites during the flood, which constituted all or nearly all of their belongings. Some HSOs were called upon as mediators between the Federal Emergency Management Agency (FEMA) and their clients, which required a substantial amount of learning on the part of service providers. While only two HSOs worked extensively with FEMA, others maintained a less involved mediator role, in that they provided an address and phone number for clients to use in their efforts to obtain financial assistance following the floods.

Service providers who tried to navigate the FEMA system for clients faced considerable frustration. Courtney, a case manager at House of Hope, worked extensively with FEMA in the four months following the flood. She explained that her role as a case manager extended during that period to serve as a mediator for her clients who were trying to obtain funds for lost possessions: "so part of my role after the flood is.. all the letters came to me, signed, notarized—that this person was a client of ours, how long we had known the client, and to the best of my knowledge, where their camp spot was." The FEMA system was incredibly difficult for clients to

navigate, because, for many clients, the language used in FEMA documents was confusing, and it was difficult for them to comprehend what was being explained to or asked of them. For this reason, case managers had to assist many of their clients by writing letters, making calls, and confirming campsite locations.

Communication issues

Communication constituted one of the biggest reported barriers encountered by HSOs during the floods. Communication issues took two forms: 1) inter-and intra-organizational communication, and 2) communication between organizations and the homeless population.

Communication issues were prevalent both within and among HSOs. Inter- and intra-organizational communication was hampered during the flooding not only because of flood impacts, but also because formal emergency communication plans had not been developed prior to the disaster. Many staff members were stranded because of the floods and were not able to be reached or make it to work in order to advocate for their clients or to open up shelter locations. Inter-organizationally, there was an incident in which staff at House of Hope sent clients to Boulder Helping Boulder, thinking that the organization had plenty of space to shelter individuals. It was not until people arrived at Boulder Helping Boulder for shelter that they learned space was limited to only 25 additional spots. As a result, roughly 50 homeless individuals were yet again turned away and had to seek shelter elsewhere, for example in parking garages and locations under overpasses that had escaped flooding.

The second reported communication issue during the floods was between organizations and their clients. Communication tends to be difficult with this population during normal times because not all homeless individuals have frequent access to mobile phones or email, but the floods proved even more difficult—with much more at stake in terms of safety. Normally,

communication is never as easy as simply giving homeless persons a call or reaching them at a specific location, and even those with cell phones typically keep their phones turned off or have limited minutes, making this an impractical option for communication. Questions remain for some organizations about how to communicate with clients during disaster conditions. How will they be told where to go and where to find resources when normally inadequate forms of communication are further disrupted and when clients are driven out of areas where they normally congregate?

Michelle, a staff member at Boulder Helping Boulder, explained that her organization communicated through other organizations about where clients could find resources: "We basically spread the word through organizations so that they could spread the word. Since we're not open during the day, that's really the most functional way for us to reach people. And the homeless grapevine is very effective." Staff members frequently commented that word of mouth is the most effective form of communication with the homeless community:

> You know, word of mouth really travels in [the homeless] community. .. We always publish at the library where things are and so we try to see the process of the grapevine and try to get all the different entry points into the grapevine so that it spreads as much as it possibly can because a lot of the people do have phones but they consider them emergency phones and they don't call [or get called] very often ... so word of mouth is very, very important. And that's the primary vehicle…that's really feeding the grapevine.

However, word of mouth as a means of communication proved to be inaccurate at times during the flood. For example, many homeless persons were told to go to shelter locations for the homeless that were flooded, owing largely to the fact that information could not be relayed in real-time to the homeless community, as well as to the fact that the communitywide impacts of the flooding were not fully understood.

Staffing

A major issue for all of the organizations was being able to gather staff members during the flood to resume operations. Staffing was especially critical during the brief time that the public shelter was turning homeless individuals away. As previously mentioned, emergency shelter for the homeless had not yet opened for the winter months, making it difficult for some HSOs to open up during the flood. Elizabeth, a staff member at Boulder Helping Boulder, which operates an emergency shelter, noted the issues with opening up during this time: "..during the summer, we only have two people on in the evenings.. so opening up for emergency sheltering needs—we needed a lot of extra staff based on what we were prepared to do."

Not only did the flood occur outside of normal operating shelter periods for those HSOs that offered emergency shelter services, but many staff members were severely affected by the flooding, either because they were unable to leave their homes and get around town, or because they were dealing with crises at home or with friends and family, such as flooded homes, basements, and cars. For example, Susie, a volunteer leader at Homeless Women's Outreach, was unable to make it to Boulder during the floods because she and her daughter lived in Longmont—a town about 20 miles away that was essentially cut in half by raging waters (BOEM 2013). Several other towns near Boulder became "islands" as a result of the flooding, and one town was totally evacuated.

Adding to their burdens, staff members at Boulder HSOs were requested and in some cases pressured by disaster shelters, city, and county officials to go to public disaster shelters to assist with managing "their" clients—the implication being that because the disaster shelter volunteers were not trained to work with homeless populations, HSOs had to fill the gap. Pressure was placed on HSOs to be present at shelters to assist their homeless clients regardless

of whether those clients needed the same kinds of basic services afforded to all displaced disaster survivors. What this finding indicates is that being homeless during a disaster maintains a stigma that has negative implications concerning response and recovery of homeless individuals. Disaster workers do not want or do not have the knowledge to deal with homeless individuals—even if their needs are no different from those of others who have been displaced. This calls attention to the effects of stigma in a disaster context and how stigma may result in barriers faced by individuals in effectively responding to and recovering from disasters.

CONCLUSION

Social service CBOs such as those that serve the extremely poor are critical assets for many of their clients, as they connect their clients to services such as food, shelter, rental assistance, and mental health assistance that might not be provided to them otherwise. In the context of decreased government support for social welfare programs, CBOs have had to pick up the slack and address the needs of a growing population affected by poverty (Tierney 2013).

I have argued here that because of ongoing pressure placed on CBOs to take on the role of the safety net for the nation's welfare state, they are increasingly strained in their ability to provide sufficient resources for the populations they serve. Further, I have argued that because of the marginalized status of the client base that HSOs serve, they are likely to experience unique challenges in preparing for, responding to, and recovering from disaster compared to CBOs that do not serve homeless clients. These two arguments explain the compounded vulnerability of HSOs during disaster by tying together the structural and client-based causes of disaster vulnerability.

As the above sections demonstrate, Boulder HSOs faced pressure to care for their client base during a time when they were unprepared to do so. This resulted in communication mishaps, staffing issues, and heighted advocacy roles during the floods. Because of the funding, staffing, and resource constraints placed on Boulder HSOs, disaster planning and preparedness was not a pressing concern for many of these organizations. This speaks to the structural problems associated with CBOs' and nonprofits' expanded role as a social safety net for the nation's welfare state. A growing client base, coupled with limited resources and funding availability, mean that these organizations must tackle the most immediate and pressing priorities (e.g., food distribution, case management, and shelter). This is the predicament many

organizations were in prior to the flooding, which placed them in weakened positions to care for their clients during the disaster. In an effort to call attention to the broad structural patterns that contribute to the growing vulnerability of the critical civil infrastructure, Tierney (2013: 17-18) argues:

> The current status of the nation's social safety net is a stark reminder that broader social conditions and trends, and not disaster-specific legislation and programs, are the factors that matter in enhancing or eroding disaster resilience. It is those macro-societal, macro-economic forces that produce both disaster vulnerabilities and resilience-related capabilities, and thus it is at the macro level that battles over resilience will be lost or won.

Furthermore, it is necessary to understand the unique vulnerabilities of homeless individuals to recognize what factors HSOs should take into account in order to plan for their client base during disaster. The stigmatized status and vulnerability of homeless individuals created even more issues for HSOs during the floods. Not only did HSOs face barriers in communicating with their clients, but they also had to step in on behalf of the homeless population of Boulder during a time when they were assured that homeless individuals would be treated like any other disaster survivors. The necessity for Boulder HSOs to fill gaps in response and recovery (FEMA case management), specifically for their own clients, further strained organizations that were already in a weakened predicament in terms of staffing and funding.

The broader implications of this research speak to the growing need to understand the structural factors that create risk and vulnerability (Ritchie and Tierney 2008; Tierney 2013), as well as how vulnerability should be viewed as multi-dimensional and compounded. This study contributes to disaster vulnerability research by offering an analysis of compounded vulnerability that integrates multiple levels of analysis (structural, organizational, and individual vulnerabilities) in order to examine the present condition of homelessness and growing reliance on nonprofits in the context of disaster. Additionally, this work adds to the sociology of

inequality literature by further exploring the ways in which inequality is manifested during disaster, using homelessness as focal point of examination.

Inequality is a disabling problem in our society, and if effective change is to occur, superficial solutions will not be enough to result in effective change. Turning to nonprofits to alleviate issues of homelessness instead of addressing structural social problems, such as the lack of attention to affordable housing in U.S. policy, increases vulnerability both within the nonprofit sector and for those who depend on it. Until the nation addresses structural causes of inequality, NGOs and CBOs will be left trying to fill gaps and advocate on behalf of overlooked and vulnerable populations, during disaster and non-disaster times, but will be hampered in their ability to do so.

Recommendations for Homeless Service Organizations

- Research has found cross-sector collaboration between public, private, and nonprofit sectors to be critical in order for organizations to effectively prepare for, respond to, and recover from disasters (Ritchie and Tierney 2008; Simo and Bies 2007). Organizational connections and collaborations made before a disaster event are critical for effective response and recovery efforts among homeless communities. There is a need to recognize potential connections such as those with other homeless service providers, public officials—especially local emergency managers, and the police force. Established relationships with the police force in Boulder, for example, were critical for both homeless organizations and homeless individuals during and immediately after the flooding.
- Note areas where homeless people congregate in the community/city. For example, the Boulder Public Library is a meeting ground for many homeless individuals. Fliers, phone calls, and announcements about where to go following a disaster at these locations are critical in order to get the word out.
- Staffing was an issue with every organizational staff member that I met with. This was perhaps one of the biggest obstacles they faced during the floods—because either their particular service was out of season or because staff members were directly affected by the

flooding and it inhibited them from assisting. HSOs need an emergency staffing "tree," and perhaps a roster of "emergency volunteers" for this purpose.

- Organizations need to create connections with key members of the homeless community. They need individuals who can deliver messages of disaster preparedness and evacuation effectively to members of the community.
- Organizations should learn about the opportunities available through FEMA for both their organization and their clients should a disaster event occur.

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Appendix A: Informed Consent Form

Permission to Take Part in a Human Research Study

Title of research study:

Homelessness and Disaster in Boulder, CO

Investigator: Jamie Vickery, Ph.D. Student, Department of Sociology, CU-Boulder

Why am I being invited to take part in a research study?

I invite you to take part in a research study because of your position in either a homeless organization or as a public official whose job is related to homelessness in any capacity. Specifically, I am interested in your organization's experience during and after the recent flood: How this event has (or has not) disrupted your organization's normal routines, and how it has affected your clients or the people that you serve.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the Principal Investigator, Jamie Vickery at 405-818-6880 or jamie.vickery@colorado.edu or the research advisor, Kathleen Tierney, Ph.D., at (303) 492-6315 or tiermeyk@colorado.edu.

This research has been reviewed and approved by an Institutional Review Board ("IRB"). You may talk to them at (303) 735-3702 or irbadmin@colorado.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

How many people will be studied?

We intend to study roughly 20 people from Boulder County or City offices and personnel from homeless organizations.

What happens if I say yes, I want to be in this research?

This study will include one initial interview (ranging 45 to 90 minutes) with the potential for follow up interviews as the study progresses

We will either begin today with a 90-minute interview, or schedule a time in the next few weeks that is convenient for you. After the initial interview, I may contact you sometime within the subsequent months for brief (no more than 30-minute) follow-up interviews, scheduled at your convenience. These interviews can be done in person or on the phone, depending on your preference.

What happens if I do not want to be in this research?

I will not contact you further.

What happens if I say yes, but I change my mind later?

You can leave the research at any time and it will not be held against you.

Is there any way being in this study could be bad for me?

I will be asking questions about your organization or office as well as your role within the organization/office, specifically concerning the day-to-day operations of your facility or office, your organization's experiences during and after the flood, as well as your perceptions of how your clients have been affected by the flood. The flood has caused a lot of stress for many people in the community, and some of these feelings may come up during the interview.

Regardless of your choice to participate, I will leave you with some resources available in the community that might be helpful for managing stress and other impacts from the flood.

Will being in this study help me in any way?

No monetary or material benefits will be offered to you for participation.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB at the University of Colorado Boulder. However, any information published or presented in a public manner will be in aggregate form only and will not reveal your identity.

Signature Block for Capable Adult

Your signature documents your permission to take part in this research.

Signature of participant	Date
Printed name of participant	
Signature of person obtaining consent	Date
Printed name of person obtaining consent	IRB Approval Date
Printed name of person witnessing consent process	

Appendix B: E-mail/Letter Invitation to Participate in Study

Hello Mr./Ms._____,

I hope this message finds you and yours well in the wake of the recent floods.

My name is Jamie Vickery and I am a graduate research assistant at the University of Colorado Boulder's Natural Hazards Center (http://www.colorado.edu/hazards/), which for nearly four decades has been involved in the study of the social aspects and impacts of disasters My own research interests involve exploring how various types of disasters affect vulnerable populations, specifically, homeless and transient populations and the organizations that serve them.

I am emailing to inquire whether you would be willing to be interviewed at your convenience about r issues affecting your organization and the populations you serve in your work with _____. I am hoping to gain some insights into the impacts the disaster has had on your organization and others, as well as those that you serve, and believe that your thoughts would be particularly valuable. I recognize that you are likely very busy right now due to disaster recovery efforts, and would of course work around your schedule. Please let me know whether you would be willing to meet with me and what time frame might work best for you. I look forward to hearing from you and learning more about your organization, the experiences your organization faced during the floods, and the challenges you and those you serve have faced and are facing at this time.

In developing a list of important stakeholders in this issue, I have identified you as someone who holds valuable insights into the questions our research attempts to answer. I am hoping that you will agree to participate in this study. A project representative will be contacting you soon to formally request and schedule an interview at your convenience. In the meantime, please refer to the contact information below if you have any questions or concerns. Thank you in advance for any support you might provide in our research efforts. I appreciate your time and consideration. If you would like more information about the Natural Hazards Center or my research, you could of course contact me or my adviser, Dr. Kathleen Tierney. Here is a link to her biography page: http://ibs.colorado.edu/directory/profiles/?people=tierneyk

Sincerely,

Jamie L. Vickery
Graduate Research Assistant
Natural Hazards Center
University of Colorado at Boulder
Jamie.vickery@colorado.edu

Appendix C: Semi-Structured Interview Guide

Organizations that Serve the Homeless in Boulder County
Semi-Structured Interview Guide

This interview is designed to obtain information about your organization, its experiences during and immediately after the Boulder Flood, as well as its efforts to prepare for future disasters. I will be asking questions on four topics: your organization's activities and services; your organization's experiences during and after the Boulder Flood; the disaster planning activities in which your organization has been involved; and finally, the clients that you serve and their experiences during and after the flood.

The first set of questions concerns your organization.

1. First, tell me about your role in the organization. What are your duties and how long have you been involved at _____?

2. a. What are the most important services your organization provides?
   b. For each service, how many clients does the organization serve, on average, each year?

a. Most Important Services	b. Number of Clients/Year
1.	
2.	
3.	
4.	
5	
6.	
7.	
8.	
9.	
10.	

3. I recognize that you work with the homeless, but there's diversity in the client pool that you serve. How would you describe the demographics of your client pool?

   Probe for: Male vs. female clients; individuals vs. families; Age ranges: Youth, adults, elderly persons; Racial and ethnic makeup of clientele; Any specific populations: veterans, persons with substance abuse issues; LGBT groups; Seasonal changes in clients served (e.g., summer vs. other times of the year); persons affected by the ongoing economic crisis.

   Ask for any statistics organization can make available, reports on client base.

4. What times of the year does your organization operate?

   a. Are there any instances where you would open during off times? [Outside seasonal operations or daily hours of operations]
   b. (If yes) Do you have any examples?

5. How would you describe your relationships with other organizations that serve homeless populations, low income groups, or others with special needs? Is there a degree of collaboration or do you function more or less independently?

   Probe for membership in interagency groups, coalitions, and other organized networks.

6. Who are your major financial contributors? Where do your funds come from?

   This might be a good time to ask for recent annual reports, other reports on organizational funding and activities.

7. How many people work for the organization?

   a. Total paid staff? _____
   b. Volunteers? _____
   c. Out of your total number of employees and volunteers, how many of them live in Boulder County?

8. I would like to know a little more about the facility/es that your organization maintains.

   a. Under which/what establishment(s) do you operate out of?
   b. If it operates as a shelter, how many individuals are served on a typical day?

      Probe for seasonal variation, other variation (e.g., very cold or very hot weather.)

   c. If it serves food, approximately how many individuals does it serve at each meal?

9. Organizations have many things to be concerned about besides disasters.

a. Can you describe some of your organization's major concerns and challenges, other than disasters?

   Probe for: Financial and fundraising concerns; needs that are difficult to meet; relationships with other agencies (e.g., law enforcement, courts)

b. Where do disasters fall in that list of concerns?

10. Is there anything else about your organization that you would like for me to know before I ask more specifically about your organization's experiences with the flood?

Next, I would like to ask about your organization's experiences during and after the flood.

11. Where were you when you first heard about the flooding?
    a. How did you find out about it?
    b. What did you do?
    c. What were your greatest concerns during this period?
    d. Please describe your organization's experiences during the flood. What were the most important issues you were experiencing at that time?
    e. Did your organization continue to operate during the Boulder Flood, or was there a period of interruption?

       If there was an interruption in service provision, probe for duration and reason(s) for interruption.

12. Did the flood affect your organization's normal activities, and if so, how were activities affected, for how long, and why?
    a. (If operations were affected) When would you say your organization was able to resume normal operations? How long did it take?
    b. (If operations not affected) How did your organization manage to cope and provide services during this serious disaster?

13. What types of organizational relationships were most important both prior to the Boulder Flood?
    a. Could you further describe some of the relationships and collaborations you had with other agencies?
    b. What about after the flood? Were your organization's relationships with other agencies about the same as before, or did they change? And if they changed, can you describe those changes?

14. As a result of the flood, did your organization need resources above and beyond what you had on hand?
    a. If yes, what kinds of resources were needed, and how did the organization go about seeking those resources?

b. Did your organization provide resources to other organizations during and after the flood? If so, what types?

Now I'd like to talk about disaster planning at your organization.

15. Prior to the flood, did your organization have a written disaster plan?
If yes:

a. (If yes, ask for a copy of the plan)

b. (If yes): Can you tell me in general what sorts of things the plan covers—that is, what parts of the organization's response are spelled out in the plan? (Probe for mutual aid agreements, types of mutual aid that will be exchanged.)

c. (If yes): Did you find that the plan was useful in the flood? If it was useful, in what areas or with what types of problems?

d. (If yes and the plan was not useful or of limited use) In what areas was the plan not helpful, and why?

e. (If yes) Can you tell me about when and why the plan was developed? How long has the organization had a written plan, and what were the reasons for having a plan?

Probe for: How long the plan has existed; Reasons why plan was developed, including prior disaster experience, requirements from funders, planning initiatives with other community organizations, leadership interest, etc.

f. (If yes) Are there discussions in the organizations about changes that may need to be made as a result of the flood experience?

If no:

a. (If no) Were there other procedures in place that would help the organization prepare for a disaster like the flood?

Probe for other emergency procedures that were used in the flood.

b. (If no): There can be many reasons why organizations don't develop plans for disasters. I'm going to read a short list of possible reasons and ask you to tell me whether the reasons apply to your organization. Is there no written plan because (check all that apply):

_____ It's not necessary to have a written plan to know what to do during a disaster?

_____ The organization doesn't have other resources that are needed in order to develop a plan, such as money and special knowledge about what to do?

_____ Are there other reasons for not having a plan that I have not mentioned?

c. (If no) Since the flood occurred, have there been discussions in the organization about the need for a disaster plan in the future?

Probe for details of those discussions.

16. Is there information on disaster issues that you would like to have, but do not have at this time?

_____Yes _____ No

a. (If yes): What kind of information, and in what form?

17. Within your organization, is there a particular person who is responsible for disaster or emergency planning?

_____ Yes _____ No

a.. (If yes) What is this person's name and title?

b. (If yes) Is (name of person/are you) _____ a full-time or part-time employee?

_____ Full time _____ Part time

c. (If yes) What percentage of (name of person/your) _____ job is dedicated to disaster planning?

d. (If yes) What kinds of things (does name of person/do you) _____ do as part of (his/her/your) job? (Probe for: writing plans; organizing drills, training, exercises; attending meetings with other disaster planners and organizations)

Now, in this last part of the interview, I would like to ask you to tell me about how the flood affected the clients of your organization..

18. You've talked about how the Boulder Flood affected your organization; now let's talk about how it affected the people whom you serve.

a. How do you think the Boulder Flood has affected your clients?

b. What were their biggest challenges for your clients during the flood?

c. Do you know if any of your clients were/are involved in response and recovery efforts, and if they were, what kinds of help did they provide?

19. The flood displaced large numbers of people from their homes. Did your organization provide any services to people who were not homeless before but who were made homeless by the flood?

a. (If yes) Can you give me a general idea of what this client group was like?

b. (If yes) What kinds of help did your organization provide?

Probe for whether services were the same or different from those provided to pre-disaster clientele; probe for services that may have been new, such as referrals to disaster assistance agencies, etc.

20. Did you communicate with your clients about where to obtain resources and/or shelter following the flood?

a. If yes, how did you communicate with your clients about resources and where did you refer them?
b. If no, what impeded communication?

21. In talking with clients, have you heard about their experiences with agencies, organizations, and groups that were providing assistance of different kinds to disaster victims?

a. (If yes) Can you describe these contacts? Were there experiences that were positive, negative, or what? How were your clients treated by disaster assistance agencies? Did they feel that their needs were met?

22. Is there anything you would like to share about your clients and their experiences during and after the flood?

23. Is there anything else you wish to share about your organization, your clients, or your experiences during and after the Boulder Flood?

End of Interview

Appendix D: Institutional Review Board Approval Letter

20-Nov-2013

Exempt Certification

Vickery, Jamie
Protocol #: 13-0572
Title: Homelessness and Disaster in Boulder, CO

Dear Jamie Vickery,

The Institutional Review Board (IRB) has reviewed this protocol and determined it to be of exempt status in accordance with Federal Regulations 45 CFR 46.101(b). Principal Investigators are responsible for informing the IRB of any changes or unexpected events regarding the project that could impact the exemption status. Upon completion of the study, you must submit a Final Review via eRA. It is your responsibility to notify the IRB **prior** to implementing any changes.

Certification Date: 20-Nov-2013
Exempt Category: 2

Click here to find the IRB reviewed documents for this protocol: Study Documents

The IRB has reviewed this protocol in accordance with federal regulations, university policies and ethical standards for the protection of human subjects. In accordance with federal regulation at 45 CFR 46.112, research that has been approved by the IRB may be subject to further appropriate review and approval or disapproval by officials of the institution. The investigator is responsible for knowing and complying with all applicable research regulations and policies including, but not limited to, Environmental Health and Safety, Scientific Advisory and Review Committee, Clinical and Translational Research Center, and Wardenburg Health Center and Pharmacy policies.

Please contact the IRB office at 303-735-3702 if you have any questions about this letter or about IRB procedures.

Douglas Grafel
IRB Admin Review Coordinator
Institutional Review Board

Appendix E: Urban Flooding Extents during the September 2013 Flood—City of Boulder