

A FOUNDATION FOR FACTORS THAT EXPLAIN VOLUNTEER ENGAGEMENT IN
RESPONSE AND RECOVERY: THE CASE OF FLOODING IN EAST TEXAS 2016

A Dissertation
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agriculture and Applied Science

By

Samantha Lea Montano, M.S.

In Partial Fulfillment of the Requirements
for the Degree of
DOCTOR OF PHILOSOPHY

Major Department:
Emergency Management

April 2017

Fargo, North Dakota

North Dakota State University
Graduate School

Title

A Foundation for Factors That Explain Volunteer Engagement in Response
and Recovery: The Case of Flooding in East Texas 2016

By

Samantha Lea Montano, M.S.

The Supervisory Committee certifies that this *disquisition* complies with
North Dakota State University's regulations and meets the accepted
standards for the degree of

DOCTOR OF PHILOSOPHY

SUPERVISORY COMMITTEE:

Dr. Jessica Jensen

Chair

Dr. Daniel Klenow

Dr. Sarah Bundy

Dr. Nicholas Bauroth

Approved:

04/07/2017

Date

Dr. Daniel Klenow

Department Chair

ABSTRACT

Volunteers are important contributors to response and recovery. Little is known about their engagement, particularly in terms of comparing the engagement of response volunteers to recovery volunteers. This study sought to explore volunteer engagement in response and recovery in the case of flooding experienced by a number of communities in East Texas following flooding in 2016. Data was gathered through interviews with 72 response and recovery volunteers and key informants, an analysis of key documents, and first-hand observations. This study developed a list of factors that were found to explain volunteer engagement in East Texas and factors suggested by the literature. These factors should be systematically tested in the future to expand our understanding of volunteer engagement.

ACKNOWLEDGEMENTS

I would like to thank the members of my dissertation committee, Dr. Jessica Jensen, Dr. Daniel Klenow, Dr. Sarah Bundy, and Dr. Nicholas Bauroth for their contributions and advisement. A special thanks is extended to Dr. Jensen for her continual guidance throughout my time in the program. Finally, I would like to thank the participants in this study for sharing their experience.

This research was funded in part by a grant from the University of Colorado Natural Hazards Center through its Quick Response Grant Program, which is funded by National Science Foundation grant number CMMI1030670 and by The Department of Emergency Management at North Dakota State University.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xii
LIST OF APPENDIX FIGURES	xiii
CHAPTER ONE: INTRODUCTION	1
Significance	4
Conclusion	5
CHAPTER TWO: LITERATURE REVIEW	6
Disaster Volunteer Literature	7
Demographic Variables	7
Relationship with the Voluntary Sector	10
Volunteer Motivations	11
Logistical Considerations	13
Hazard Event Characteristics	15
Methodological Characteristics	18
Literature Critique	18
Conclusion	21
CHAPTER THREE: METHODS	23
East Texas	23
Methodological Approach	27
Sampling & Data Collection	29
Data Analysis	35
Limitations	36

Conclusion.....	37
CHAPTER FOUR: VOLUNTEER ENGAGEMENT IN RESPONSE.....	38
Volunteer Sites	41
Red Cross Headquarters.....	42
Houston Shelter.....	43
Wharton Shelter.....	47
Local Church.....	49
Salvation Army Headquarters.....	50
Houston Food Bank.....	51
Community-Wide Observations.....	52
Volunteer Site Structure	54
Volunteer Landscape	57
Tasks.....	62
Conclusion.....	64
CHAPTER FIVE: RESPONSE FACTORS	65
Pre-Disaster Factors Influencing Engagement	65
Pre-Disaster: Characteristics of the Individual.....	66
Pre-Disaster: Integration	72
Per-Disaster: Volunteer Mobilization.....	74
Volunteer Mobilization: Impacts and Needs.....	74
Volunteer Mobilization: Motivations.....	76
Volunteer Mobilization: Goodness-of-Fit with Volunteer Site.....	77
Volunteer Mobilization: Media.....	81
Volunteer Mobilization: Logistics.....	83
Model of Volunteer Engagement in Response	87
Conclusion.....	89

CHAPTER SIX: RESPONSE THEMES BUT NOT FACTORS.....	90
Challenges	90
Observations about Organizational Involvement	94
Organizational Partnerships	95
Volunteer Recruitment	98
Observations about Government Action	100
Conclusion.....	103
CHAPTER SEVEN: VOLUNTEER ENGAGEMENT IN RECOVERY	104
Unmet Needs	105
Volunteer Landscape	107
Volunteer Sites	111
Volunteer Site Structure.....	114
Tasks	117
Group Cohesion.....	120
Conclusion.....	123
CHAPTER EIGHT: ORGANIZATIONAL FACTORS	125
Organizational Landscape	125
Goodness-of-Fit Between Community and Organization	127
Organizational Capacity	129
Organizational Capacity: Personnel.....	129
Organizational Capacity: Funding	134
Organizational Capacity: Base of Operations	136
Integration.....	142
Logistical Support.....	148
Conclusion.....	151
CHAPTER NINE: INDIVIDUAL & COMMUNITY FACTORS.....	152

Individual Factors	152
Individual Factors: Initial Motivation	152
Individual Factors: Availability	155
Individual Factors: Goodness-of-Fit Between Volunteer and Organization	157
Individual Factors: Group Membership	160
Community-Wide Factors	163
Community Factors: Physical Conditions	163
Community Factors: Media	166
Model of Volunteer Engagement in Recovery	168
Conclusion	171
CHAPTER TEN: RECOVERY THEMES BUT NOT FACTORS	172
Volunteer Infrastructure	172
Virtual Volunteer Recruitment Center	172
Voluntary Organizations Active in Disaster (VOAD)	174
Long-Term Recovery Committees (LTRC)	175
Government Action	178
Conclusion	181
CHAPTER ELEVEN: COMPARING RESPONSE & RECOVERY	183
Response and Recovery Engagement Comparison	183
Response and Recovery Factors Comparison	188
Factors That Mattered and Were the Same in Response and Recovery	189
Factors That Mattered but Were Different in Response and Recovery	190
Themes but Not Likely to Be Factors	197
Models	197
Conclusion	199
CHAPTER TWELVE: DISCUSSION AND CONCLUSION	200

Connection to Existing Literature.....	200
Volunteer Engagement.....	200
Factors.....	204
General Volunteerism Literature.....	208
Implications & Future Research.....	212
Conclusion.....	216
REFERENCES.....	218
APPENDIX A: PRESIDENTIAL DISASTER DECLARATION MAPS.....	232
APPENDIX B: INDIVIDUAL VOLUNTEER INTERVIEW GUIDE.....	236
APPENDIX C: INDIVIDUAL VOLUNTEER INFORMATION SHEET.....	237
APPENDIX D: INFORMANT INTERVIEW GUIDE.....	239
APPENDIX E: INFORMANT INFORMATION SHEET.....	240
APPENDIX F: IRB APPROVAL.....	242
APPENDIX G: POSSIBLE FACTORS EXPLAINING VOLUNTEER ENGAGEMENT.....	243

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Literature Supported Independent Factors.....	17
2. Presidential Disaster Declarations in East Texas 2015-2016	24
3. East Texas Demographics.....	27
4. Interview Participants by Type and Phase	34
5. Volunteer Engagement in Response as Compared to Recovery.....	187
6. Summary of Factors Explaining Volunteer Engagement in Response and Recovery	188

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Map of East Texas	26
2. The process of response volunteer engagement: Individuals and overall.....	88
3. The process of recovery volunteer engagement: Individuals and overall.....	169
4. Response and recovery models at a glance.....	198

LIST OF ABBREVIATIONS

FEMA	Federal Emergency Management Agency
IA	Individual Assistance
IRB	Institutional Review Board
LTRC	Long-term Recovery Committees
LVOAD	Local Voluntary Organizations Active in Disaster
NVOAD	National Voluntary Organizations Active in Disaster
PA	Public Assistance
PDA.....	Preliminary Damage Assessment
PDD.....	Presidential Disaster Declaration
VAL	Voluntary Agency Liaison
VOAD.....	Voluntary Organization Active in Disaster
VRC	Volunteer Reception Center

LIST OF APPENDIX FIGURES

<u>Figure</u>	<u>Page</u>
A1. Texas Disaster Declaration as of 08/05/2015	232
A2. Texas Disaster Declaration as of 01/29/2016	233
A3. Texas Disaster Declaration as of 06/30/2016	234
A4. Texas Disaster Declaration as of 08/01/2016	235

CHAPTER ONE: INTRODUCTION

Volunteers contribute to both the response to and recovery from disaster (e.g., Gardner, 2008; Kendra & Wachtendorf, 2001; Lowe & Fothergill, 2003; Lueck & Peek, 2012; National Research Council, 2006; Mileti, 1999; Rotolo & Berg, 2011; Ward, 2013; Wauty, de Ville de Goyet, & Chaze 1977). Beyond knowing simply that volunteers engage at each stage, it would be useful to know about more specific issues related to their engagement such as the prevalence of different types of volunteers, the overall number of individuals that volunteer at each stage, the tasks and activities volunteers engage in each phase, and the duration of their involvement. The existing disaster literature does not provide a sufficient theoretical basis upon which to explain volunteer engagement much less provide an understanding of volunteer engagement in its various forms at each stage.

It would be helpful to know more about these aspects of engagement for response and recovery and also to understand what factors influence different forms of engagement. This information could help emergency managers and others anticipate how volunteer engagement will progress. If more was known about what influences engagement, and in what forms at each stage, these findings could be incorporated into evidence-based procedures, policies, and programs to recruit and manage disaster volunteers. This study considered 1) how volunteers engage in disaster response and recovery, and 2) factors that influence their engagement in response and recovery through a literature review and case study of volunteer engagement in East Texas 2016 flooding.

This study was warranted for many reasons. Volunteers are major contributors to both disaster response and recovery efforts yet the disaster literature does not provide a solid foundation for understanding their engagement for several reasons. First, topics related to

disaster volunteerism that have been studied lack depth of study in terms of quantity and rigor. The majority of the disaster volunteer literature has focused on volunteer motivation (e.g., Aguirre & Bolton, 2013), tasks volunteers engage in (e.g., St John & Fuchs, 2002), spontaneous volunteers (e.g., Kendra & Wachtendorf, 2001), and the mental health of volunteers (e.g., Adams, 2007). Within each of these areas of interest, only a handful of studies exist, they are not generalizable, and have often produced conflicting findings.

Second, the majority of the research has explored these topics with respect to response volunteers but not recovery volunteers. Although researchers vary in their specific definition, response is generally considered to be the period when a hazard event is imminent, occurring, as well as afterward when immediate actions are taken to save lives, property, and the environment (e.g., Mileti, 1999; Tierney, Lindell, & Perry, 2001). While recovery can be understood to be “the differential process of restoring, rebuilding, and reshaping the social, physical, economic, and natural environments through pre- and post- event action” (Smith & Wenger, 2006, p. 237).

The phases of emergency management can be viewed along two dimensions; temporal and task. Typically, response is considered the time immediately before, during, and immediately following a disaster and overlaps somewhat with recovery. The recovery process has no clear start or endpoint (Alesch, Arendt, & Holly, 2009). Thus, the temporal dimension is not particularly useful for differentiating volunteer engagement in response versus recovery. Rather tasks dimension is more useful in differentiating between response and recovery volunteers. Response tasks are those related to saving lives, property and or the environment (e.g., search and rescue, helping run shelters, distributing emergency supplies) (see for example: Dynes, Quarantelli, & Wenger, 1988; Rigg, Law, Tan-Mullins, & Grundy-Warr, 2005; Steffen & Fothergill, 2009) while recovery tasks are those related to restoring, rebuilding, and reshaping

the community (e.g., clearing debris, rebuilding homes, and conducting damage assessments) (see for example: Phillips, 1986; 2015). Researchers have noted tasks that volunteers do but have not studied these tasks as they relate to engagement. Despite the lack of an exact time frame, response tasks tend to be done before recovery tasks. Though, there is some overlap in the timing of response and recovery activities, most recovery tasks take place further away from the time of the event when life, property, and environment saving activities are complete.

The temporary time period following a disaster, known as a therapeutic (Fritz & Mathewson, 1958) or altruistic community (Barton, 1969), is typified by the dual phenomena of convergence to (Dynes & Quarantelli, 1980; Haas & Drabek, 1970) and emergence in (Green & Ireland, 1982; Kreps, 1978; Marjchrzak, Jarvenpaa, & Hollingshead, 2007; Scanlon, 1999; Taylor, Zurcher, & Key, 1970) impacted communities. Research has consistently found that people, materials, and information converge from within, and areas surrounding, the impacted area with the intent to help (e.g., Auf der Heide, 1989; Barton, 1969; Drabek & McEntire, 2003; Dynes & Quarantelli, 1980; Quarantelli, 1986). Response volunteers exhibit pro-social and helping behavior as they assist survivors with specific response-related activities (e.g., Dynes & Quarantelli, 1980).

Unlike this clear line of research on response volunteers, little is known about individuals that volunteer during the recovery time period. Research has found that the therapeutic or altruistic behavior quickly dissipates after disaster and that as time extends from the disaster, the convergence ceases but we know very little about volunteer engagement in recovery (i.e., what type of volunteering they do, how they find volunteer opportunities, how they get to the location where they volunteer, how their basic needs are met while volunteering). It is not even clear if the recovery volunteers are the same individuals that are active during response.

Finally, research on disaster volunteerism has not made connections between volunteer engagement and volunteer management within emergency management. In practice, this means that the disaster volunteer management practices that have been implemented have no observable foundation in empirical evidence. Strategies and tactics appear focused on response and based on assumptions about how, when, where, and in what numbers volunteers will engage, best practices, and out of a desire to limit certain behaviors as opposed to being based on empirical evidence (e.g., National VOAD, 2008; National VOAD Volunteer Management Committee, 2011; Points of Light Foundation, 2002). It is not appropriate to extrapolate the same strategies and tactics for managing response volunteers to recovery without evidence. There are many differences between the two phases that suggest volunteer engagement may vary and different strategies and tactics may be required.

Significance

This study is significant in several ways: first, this study addressed the need for more research on disaster volunteers. More specifically, it intentionally distinguished between volunteers by gathering data at stages when response and recovery tasks were being undertaken by volunteers and addressed their similarities and differences. Second, this study explored the context in which volunteer engagement was undertaken in East Texas. Relatedly, this study identified the factors that influenced volunteer engagement in East Texas and compared the findings from East Texas with those identified in the literature. In the future this initial set of independent factors should be tested against engagement-related dependent variables during response and recovery to facilitate systematic research on this important topic. More systematic research on this topic will increase the information available to public officials, emergency managers, and voluntary organizations involved in disaster volunteer management.

Conclusion

This study explored the engagement of response and recovery volunteers following flooding in East Texas. Secondly, this study explored the contextual factors that seemed to have influenced the engagement of the response and recovery volunteers in the case of East Texas. This research provides valuable insight for those interested in studying response and recovery volunteer engagement in future disasters. Chapter Two presents the theoretical foundation for this study. Chapter Three outlines the research design and methodology for this study. Chapter Four presents the story of volunteer engagement during the response to the April 2016 flood event in East Texas. Chapter Five presents findings related to factors at an individual level that influenced volunteer engagement during response. Chapter Six explains the factors at individual volunteer sites that influenced volunteer engagement during response. Chapter Seven presents findings related to factors at a community-wide level that influenced volunteer engagement during response. Chapter Eight presents the story of volunteer engagement during the *recovery* from multiple flood events in East Texas. Chapter Nine and Ten present the factors at an organizational, and individual and community-wide level of analysis, respectively, that influenced volunteer engagement during the recovery to flooding in East Texas. Chapter Eleven compares volunteer engagement and the factors that were found to explain volunteer engagement in response and recovery. Chapter Twelve compares the factors found to explain volunteer engagement in the case of East Texas to factors found in the literature and provides recommendations for future research.

CHAPTER TWO: LITERATURE REVIEW

Chapter Two reviews the previous research on volunteers and provides the theoretical foundation for this study. The section presents the findings of the disaster volunteer literature. The second section addresses the methodological characteristics of the disaster volunteer literature. The final section provides a brief critique of the literature.

This study's methodology used a grounded theory approach. The role of a literature review in grounded theory differs from its role in other types of methodology. In a grounded theory approach researchers are encouraged to have distance from the literature before collecting and analyzing their data to avoid the researcher being influenced by existing theory (Charmaz, 2006). How far removed the researcher should be from the literature is disputed among grounded theorists (e.g., Blumer, 1979; Charmaz, 2006; Glaser, 1978; Strauss & Corbin, 1990).

It was not possible for this researcher to be completely removed from the literature as she had already done a literature review of some relevant literature before coming up with the research questions and had written papers on the topic. This is a common issue among those who take a grounded theory approach (Charmaz, 2006). Charmaz (2006) says grounded theory researchers may be familiar with topically relevant theory and scholarship but should take efforts to distance themselves. The researcher took several steps to do so.

First, the researcher did not return to the literature review at any point during the data collection and analysis process. It was only following completion of data analysis she returned to the literature. The researcher expanded on the initial literature review based on the findings from the study and in Chapter Twelve made efforts to integrate those findings with the existing body of literature as is appropriate for a grounded theory approach (Charmaz, 2006).

Disaster Volunteer Literature

A goal of the current study was to identify factors that influence the engagement of response and recovery volunteers. In keeping with this goal, a review of journal articles on disaster volunteerism; specifically, studies that focus on volunteers rather than voluntary organizations as the unit of analysis, are presented here. Though researchers have not explicitly considered what factors influence disaster volunteer engagement, much of what has been studied provides insight as to the types of things that may influence volunteer engagement.

The disaster volunteer literature has primarily considered who volunteers during disasters, what motivates them to volunteer, and what their experience is like finding a volunteer opportunity and while volunteering. Though these studies have not explicitly considered what factors influence volunteer engagement, they may provide insight as to factors that could potentially explain engagement. It would be prudent for future researchers to systematically study the impact of these factors, despite the lack of significance and consistency found thus far, along with the others found throughout the course of this study.

Demographic Variables

Few researchers have found a significant relationship between demographic variables (i.e., sex/ gender, age, race, religion, income, and education) and the likelihood of disaster volunteerism. Participants in volunteer studies have been demographically diverse, and no consensus on the characteristics of a typical disaster volunteer has been found.

The research on demographic factors has resulted in a series of inconsistent findings. These findings are true for the participants in each individual study and thus cannot be generalized. Some studies have found no difference in gender among volunteers (Aitken, Leggat, Harley, Speare, & Leclercq, 2012; St John & Fuchs, 2002), while others found more men than

Do you want to?

women volunteered (Dynes, Quarantelli, & Wenger, 1988; Vigo, 1996; Ward, 2013), and still others found the majority of volunteers were women (Arbon, Bobrowski, Zeitz, Hooper, Williams, & Thitchener, 2006; Lueck & Peek, 2012; Nelan & Grineski, 2013; Sargisson, Hunt, Hanlen, Smith, & Hamerton, 2012). Some studies have found gender may be tied to task choice (Dynes, Quarantelli, & Wenger, 1988; Vigo, 1996).

Again, the findings related to age conflicted across studies. One study found age not to be significant (St John & Fuchs, 2002), while another found a significant positive relationship between volunteering and age (Plummer, Ai, Lemieux, Richardson, Dey, Taylor, & Hyun-Jun, 2008). Age was found to be related to task, specifically search and rescue (Aguirre, Wenger, Glass, Diaz-Murillo, & Vigo, 1995; Vigo, 1996). The primary or average age of volunteers varied significantly across studies, from 18-44 (Dynes, Quarantelli, & Wenger, 1988), to 19-29 (Plummer *et al.*, 2008), to 26-35 (Ocak, Duran, Özdeş, Hocagil, & Küçükbayrak, 2013), to 40-49 (Arbon *et al.*, 2006), to 30-74 (Fothergill, Palumbo, Rambur, Reinier, & McIntosh, 2005), to 41-60 (Sargisson *et al.*, 2012), to 20-39 (Nelan & Grineski, 2013), to an average age of 61 (Lueck & Peek, 2012), and to 35 (Rotolo & Berg, 2011).

Interestingly, race has been the least studied demographic variable studied related to disaster volunteerism. One study found that African-Americans were less likely to give blood compared to others (St John & Fuchs, 2002). Another found that when participants did not dehumanize disaster victims based on race they were more likely to report intention to volunteer (Cuddy, Rock, & Norton, 2007). of less likely to be allowed to

Studies that have considered the relationship between formal education and disaster volunteerism have also produced inconsistent findings. One study found education to not be significantly related to who volunteered (Vigo, 1996) while another found education has a

significant positive relationship to feelings of personal responsibility towards helping victims, and the number of hours spent volunteering (Michel, 2007). Individuals with “substantial education” (Dynes, Quarantelli, & Wenger, 1988), an average of some college (Lueck & Peek, 2012; Rotolo & Berg, 2011), and post-graduate experience (Lueck & Peek, 2012; Steerman & Cole, 2009) were all found to be groups most likely to volunteer. Steerman & Cole (2009) suggest education may be related to task using the likelihood of mental health volunteers being more likely to have post-graduate training as compared to other disaster volunteers.

Socioeconomic status was not found to be significantly related to volunteering (Vigo, 1996) but income is positively related to increased likelihood of donating money, which some researchers considered to be a measure of volunteerism (St John & Fuchs, 2002; Ward, 2013). Individuals in the upper middle class (undefined) (Dynes, Quarantelli, & Wenger, 1988), who have an income under \$30,000 (Nelán & Grineski, 2013), or who have an income between \$50,000-75,000 (Lueck & Peek, 2012) have all been noted as likely volunteers.

The majority of individuals have been employed while volunteering (Fothergill *et al.*, 2005; Nelán & Grineski, 2013; Sargisson *et al.*, 2012), though some volunteers were retired (Sargisson *et al.*, 2012). Only one study found that the volunteers were mostly retired (Lueck & Peek, 2012). Relatedly, no significant relationship was found between disaster volunteering and occupation (Dynes, Quarantelli, & Wenger, 1988).

Religious affiliation was positively related to donating nonprofessional goods and donating blood (St John & Fuchs, 2002). Religious attendance was significantly positively related to the number of hours spent volunteering and feelings of personal responsibility for helping victims (Michel, 2007).

In one study, the majority of volunteers were single (Nelán & Grineski, 2013) and in another, most had children at home (Michel, 2007). Relationship status may influence task involvement as exemplified by married individuals being more likely to check on neighbors and participate in security related tasks (Vigo, 1996).

The apparent conflicting findings related to demographic variables as predictors of disaster volunteerism suggests that studying demographic variables would not help us understand volunteer engagement in response and recovery. The propensity of non-generalizable studies only allows us to conclude that disaster volunteers are diverse in terms of sex/ gender, age, income, and education level. Though the findings are contradictory and/ or insignificant, these variables have primarily only been used to test volunteer involvement, not to test their relationship with disaster volunteer engagement in response and recovery (broadly or specific forms). For this reason, future studies still might benefit from exploring the relationship between demographics and engagement.

Relationship with the Voluntary Sector

Researchers have consistently found a predictor of disaster volunteerism to be previous, general volunteer experience (i.e., volunteering for something other than disaster work) (Brand, Kerby, Elledge, Burton, Coles, & Dunn, 2008; Fothergill *et al.*, 2005; Gardner, 2008; Michel, 2007; Nelán & Grineski, 2013; Plummer *et al.*, 2008; Rotolo & Berg, 2011; Sargisson *et al.*, 2012; St John & Fuchs, 2002; Ward, 2013). One study found volunteers specifically had previous disaster volunteer experience (Gardner, 2008) but most found their volunteers had little to no previous disaster volunteer experience (Arbon *et al.*, 2006; Fulmer, Portelli, Foltin, Zimmerman, Chachkes, & Goldfrank, 2007; Lueck & Peek, 2012). Having social ties to someone in a non-disaster voluntary organization (Rotolo & Berg, 2011) and membership in any

(not necessarily disaster-related) voluntary organizations pre-disaster were associated with an increase in volunteering (Rotolo & Berg, 2011; Sargisson *et al.*, 2012; St John & Fuchs, 2002), and were positively related to the number of hours spent volunteering and feelings of personal responsibility towards helping survivors (Michel, 2007). However, it is not clear how these findings specifically relate to volunteer engagement.

Volunteer Motivations

The motivations of disaster volunteers have been an area of significant interest among researchers. Researchers have approached their interest in volunteer motivation in various ways and have produced varied findings. However, generally, findings seem to fit into broad categories related to internal motivations (Aguirre & Bolton, 2013), viewing volunteering as personally beneficial, and situation specific. Here there tend to be consistent findings related to broad categories of motivations but relatively little agreement on specific factors within those categories.

Disaster volunteers have cited factors related to their personal ideology including self-efficacy, or the confidence in their ability to help survivors (Michel, 2007), volunteer existentialism (i.e., a natural orientation towards helping others) (Aguirre & Bolton, 2013), personal fulfillment (Aguirre & Bolton, 2013; Waikayi, Fearon, Morris, & McLaughlin, 2012), and idealism (Wauty, de Ville de Goyet, & Chaze, 1977). Volunteers are also motivated by how they think the experience will impact them personally. Individuals noted gaining prestige by being a member of a voluntary organization (Waikayi *et al.*, 2012), fulfilling a school/church volunteer requirement (Steerman & Cole, 2009), being in a position to learn of reliable information related to the disaster (Brand *et al.*, 2008), learning new skills (Steerman & Cole, 2009; Waikayi *et al.*, 2012), professional interests (Wauty, de Ville de Goyet, & Chaze, 1977),

and increased social interaction (Steerman & Cole, 2009; Waikayi *et al.*, 2012) as ways their experience may impact themselves personally.

The desire to help others was the most consistent finding related to volunteer's motivation (Carlile, Mauseth, Clark, Cruz, & Thoburn, 2014; Fothergill *et al.*, 2005; Lowe & Fothergill, 2003; Irvine, 2006; Steerman & Cole, 2009). More specifically, volunteers noted the desire to help their community (Fothergill *et al.*, 2005; McLennan & Birtch, 2009; Waikayi *et al.*, 2012) or to help their organization help others (Waikayi *et al.*, 2012). Some were motivated by the sorrowfulness they felt towards the victims (Beyerlein & Sikkink, 2008). Some volunteered because they feared for the safety of family members and wanted to protect them (Brand *et al.*, 2008; Lowe & Fothergill, 2003) and their neighbors (Brand *et al.*, 2008). Others felt they had a particular skill set (Fothergill *et al.*, 2005) and lived experiences that would be beneficial to the situation (Aguirre & Bolton, 2013).

Relatedly, individuals reported that personalizing the disaster, or feeling personally victimized by the disaster, was a factor in volunteering (Lowe & Fothergill, 2003). Seemingly unique to terrorism events, individuals reported a strong sense of patriotic duty as a factor (Beyerlein & Sikkink, 2008; Brzozowski, 2013; Fothergill *et al.*, 2005). Personally knowing survivors was found to be positively related to volunteering and donating money (St John & Fuchs, 2002) and knowing a victim (Beyerlein & Sikkink, 2008) influenced the likelihood of volunteering. However, in at least one case, individuals had no connection to where they volunteered. A study of a group of U.S. based volunteers after the 2010 Haitian Earthquake found that 93% of participants had no ties to Haiti (Nelán & Grineski, 2013). Disaster volunteers in non-emergency times (e.g., volunteering with the Red Cross) were not motivated by a specific disaster (Steerman & Cole, 2009).

These findings suggest that individuals are motivated to engage in volunteerism for a variety of reasons. However, researchers have not connected these factors to specific aspects of volunteer engagement. It would be useful to not only know why individuals are motivated to volunteer but also how those motivations influence where, when, and how individuals engage in both response and recovery. Volunteer motivation should be tested in future research as a factor within the broader context of volunteer engagement.

Logistical Considerations

Practical considerations related to the personal situation of the individual may influence their ability to volunteer. A portion of the literature focuses on what can be interpreted as factors that help to explain how individuals get to impacted areas and find volunteer opportunities. As with the other areas of focus, researchers have not produced studies that build off previous work in this area so there is no logical progression in what researchers have considered related to the experiences of volunteers. Moreover, when they have, there is little consistency in findings.

The literature suggests a number of potential factors related to an individual finding a formal or informal volunteer opportunity. The research has concluded that individuals from both within and outside the impacted community come to volunteer during the response. Researchers have consistently found individuals travel great distances, including internationally, to volunteer (Arbon *et al.*, 2006; Aitken *et al.*, 2012; Nelan & Grineski, 2013; Rigg, Law, Tan-Mullins, & Grundy-Warr, 2005; Sloand, Ho, Klimmek, Pho, & Kub, 2012; Vijayakumar & Kumar, 2008; Wauty, de Ville de Goyet, & Chaze, 1977). After the Mexico City earthquake, Dynes, Quarantelli, & Wenger (1988) found a curvilinear relationship between volunteering and residence of the disaster volunteer, meaning most volunteers came from “far” outside the impacted area. The physical distance between volunteers and the disaster site prevented some

from being long-term volunteers (Sargisson *et al.*, 2012). Logistically, one study found that volunteers reported a positive international travel experience and felt their absence at their regular job was not a major problem (Aitken *et al.*, 2012). However, it is not clear the full extent to which the distance traveled is related to or influences volunteer engagement.

The literature suggests that disaster volunteers either self-deploy to the disaster scene or are recruited by an organization. Some disaster volunteers spontaneously arrive in the impacted area on their own, known as spontaneous volunteers (Gardner, 2008; Lowe & Fothergill, 2003; Wauty, de Ville de Goyet, & Chaze, 1977) or with their family and neighbors (Gardner, 2008). Others become involved in volunteering through their schools (Plummer *et al.*, 2008), places of employment (e.g., Aitken *et al.*, 2012; Soland *et al.*, 2012), churches, (Gardner, 2008) or voluntary organizations (e.g., Nelan & Grineski, 2013; Simons, Gaher, Jacobs, Meyer, & Johnson-Jimenez, 2005). Volunteers that deploy with an organization are referred to as affiliated volunteers.

Volunteers may be recruited through a number of sources. A combination of technology and local social networks are used to mobilize volunteers (Gardner, 2008), specifically through personal contacts (Wauty, de Ville de Goyet, & Chaze, 1977), the media (Phillips, 1986), the Internet, and social media (Gardner, 2008; Hunt, Smith, Hamerton, & Sargisson, 2014).

Social capital, particularly the networks of local community leaders, is leveraged by organizations to recruit volunteers as needed (Gardner, 2008; Wauty, de Ville de Goyet, & Chaze, 1977). Volunteer recruitment is primarily the result of the efforts of local community leaders (Gardner, 2008). However, volunteers who are not recruited noted difficulties finding volunteer opportunities (Farrell, 2014; Steffen & Fothergill, 2009), and feeling overwhelmed by the size and activity of the overall response system (Lowe & Fothergill, 2003) which may

influence their decision to continue seeking volunteer opportunities or leaving. It is not clear the extent to which the recruitment process influences how volunteers engage but, again, it seems like it might be influential. The impact that affiliation or lack thereof has on engagement is not clear from the literature and needs further exploration.

Related to the personal situation of the individual, volunteers have noted that not having faced severe impacts themselves, having the time to volunteer, and having flexibility and willingness to travel to the impacted area are factors facilitating their involvement (Gardner, 2008). Disaster volunteers have also noted they need transportation and support for dependent adults, childcare, transportation and housing for themselves, the ability to communicate with their family, and information regarding what was occurring in order to volunteer during a disaster (Fulmer *et al.*, 2007). Though this may be a complex process, individuals are able to overcome a variety of challenges in order to participate (Farrell, 2014; Lowe & Fothergill, 2003; Steffen & Fothergill, 2009) because they are driven by their motivations to help (Irvine, 2006).

Hazard Event Characteristics

There is some indication in the literature that specific characteristics of the hazard event or how a volunteer perceives those characteristics may influence volunteer engagement, though explicit links are not clear. Disaster volunteers have noted the apparent immediacy of need (Carlile *et al.*, 2014), perceived lack of government led response (Brzozowski, 2013); and perceived enormity of the disaster (Dynes, Quarantelli, & Wenger, 1988; Gardner, 2008; Lowe & Fothergill, 2003) as influencing their decision to volunteer. In areas with more severe impacts there may be a shortage of volunteers, requiring volunteers from outside the community to become involved (Gardner, 2008).

This review suggests a number of factors that may offer insight to the engagement of disaster volunteers. While some studies have considered certain factors (primarily demographics) as predictors of disaster volunteerism, engaging in certain tasks, and for certain lengths of time, researchers have not been able to produce consistent or a complete set of factors to explain disaster volunteerism. However, demographics, previous engagement with the voluntary sector, volunteer motivations, event characteristics, and logistical consideration all seem to have some association with volunteer engagement even if the relationship is not totally clear. These potential factors are listed in Table 1.

Table 1

Literature Supported Independent Factors

Independent Factors	Literature Support
Demographics (e.g., gender, race, education level)	Aguirre <i>et al.</i> , 1995; Aitken <i>et al.</i> , 2012; Arbon <i>et al.</i> , 2006; Cuddy <i>et al.</i> , 2007; Dynes, Quarantelli, & Wenger, 1988; Lueck & Peek, 2012; Michel, 2007; Nelan & Grineski, 2013; Ocak <i>et al.</i> , 2013; Plummer <i>et al.</i> , 2008; Rotolo & Berg, 2011; Sargisson <i>et al.</i> , 2012; St John & Fuchs, 2002; Steerman & Cole, 2009; Vigo, 1996; Ward, 2013
Previous Volunteer Experience	Brand, et al, 2008; Fothergill <i>et al.</i> , 2005; Gardner, 2008; Michel, 2007; Nelan & Grineski, 2013; Plummer <i>et al.</i> , 2008; Rotolo & Berg, 2011; Sargisson <i>et al.</i> , 2012; St John & Fuchs, 2002; Ward, 2013
Volunteer Motivations	Aguirre & Bolton, 2013; Beyerlein & Sikkink, 2008; Brand <i>et al.</i> , 2008; Brzozowski, 2013; Carlile <i>et al.</i> , 2014; Fothergill <i>et al.</i> , 2005; Irvine, 2006; Lowe & Fothergill, 2003; McLennan & Birtch, 2009; Michel, 2007; Nelan & Grineski, 2013; Steerman & Cole, 2009; Waikayi <i>et al.</i> , 2012
Logistical Considerations	Arbon <i>et al.</i> , 2006; Aitken <i>et al.</i> , 2012; Dynes, Quarantelli, & Wenger, 1988; Farrell, 2014; Fulmer <i>et al.</i> , 2007; Gardner, 2008; Hunt, et al, 2014; Lowe & Fothergill, 2003; Nelan & Grineski, 2013; Phillips, 1986; Plummer <i>et al.</i> , 2008; Rigg <i>et al.</i> , 2005; Sargisson <i>et al.</i> , 2012; Sloand <i>et al.</i> , 2012; Simons <i>et al.</i> , 2005; Steffen & Fothergill, 2009; Vijayakumar & Kumar, 2008; Wauty, de Ville de Goyet, & Chaze 1977.
Event Characteristics	Beyerlein & Sikkink, 2008; Brzozowski, 2013; Carlile <i>et al.</i> , 2014; Dynes, Quarantelli, & Wenger, 1988; Fothergill <i>et al.</i> , 2005; Gardner, 2008

Research on disaster volunteers has not been done intentionally or systematically, leaving many more questions than answers. Consequentially, the factors listed here are only a suggestion of what should be systematically studied in the future. The literature has described what happens when individuals seek disaster volunteer opportunities but not what aspect of their engagement are influenced. This suggests that there are additional, useful factors that may influence volunteer

engagement. In particular, there may be factors unrelated to individual characteristics that influence engagement at each stage.

Methodological Characteristics

The majority of volunteer research share similar methodological characteristics. Researchers have most often employed qualitative methodologies, primarily interviews, to study disaster volunteers (e.g., Barsky, Trainor, Torres, & Aguirre, 2007; Clukey, 2010; Dynes & Quarantelli, 1968; Phillips, 1986; Steffen & Fothergill, 2009; Virgo, 1996; Waikayi *et al.*, 2012). Most have utilized relatively small sample sizes that are not generalizable. Participants are typically selected using non-random methodologies and focus on like-volunteers, meaning volunteers that are all a part of a single volunteer group rather than sampling across volunteers who are present at a given disaster. Additionally, very few researchers explain their approach to analyzing the data.

Researchers rarely build their studies based on previous research findings related to the topic they are studying. Researchers frequently do not define their terms. Many frequently used terms that are fundamental to interpreting a study's findings do not have a consensus among the academic community so it is not clear what researchers mean by terms such as "response", "recovery", "relief", "affiliated", "trained", "spontaneous", and "volunteer". Additionally, almost all research on volunteers has been done within the context of a single case study rather than looking across disasters. Given these methodological approaches none of the studies on disaster volunteerism have been generalizable.

Literature Critique

The methodology and analyses are of varying but largely poor quality. Repetitive studies have not been conducted and findings are ultimately non-generalizable. The literature is almost

exclusively composed of organizational case studies, meaning volunteers are studied within the context of a single organization and not compared to volunteers across organizations, even those involved with the same event, let alone across disasters. While this is likely because the literature has been written by different authors in different disciplines and published in different journals, it means there is no clear line of research.

One group of articles discussed volunteers associated with an organization while another group focused on spontaneous volunteers. Some researchers studied trained or untrained volunteers, while others did not differentiate. Another three studies reported findings that combined volunteers and paid workers (Center for Disease Control and Prevention, 2004a; Center for Disease Control and Prevention, 2004b; Ocak *et al.*, 2013) and one study compared disaster volunteers to trained disaster workers (Dyregrov *et al.*, 1996). For the most part, researchers describe volunteers based on the tasks they participated in, the timing of their involvement, the organization they worked with/ represent, the amount or type of training they received, some other unique feature of the sample, or some combination of these five.

The majority of articles lacked a theoretical framework and do not build on previous work. As one example, Dynes & Quarantelli (1980) suggest a typology of disaster volunteers that could be a useful organizational tool for understanding volunteerism. The literature could have built off of this typology, yet it has not been used in empirical research. Unfortunately, given how the disaster volunteerism literature has been presented, it is impossible to even retroactively categorize their work using an organizational tool such as the Dynes and Quarantelli typology.

As further evidence of researchers failing to build on each other's work, there is almost no consistency in the terminology used. The studies included in this review varied markedly in

the terminology used to describe the volunteers being studied. In a sample of 60 articles on disaster volunteerism there were 44 unique terms used to describe disaster volunteers (e.g., “recovery and instrumental volunteers”, “ad-hoc volunteers”, “converging volunteers”, “volunteer helpers”, “spontaneous volunteers”, and “relief volunteers”). Additionally, some articles considered volunteers a single homogeneous group while others were very specific in describing who they considered to be a volunteer. Only three authors clearly stated definitions for volunteers in their study (Aguirre & Bolton, 2013; Hodge *et al.*, 2007; Lowe & Fothergill, 2003). Not only is terminology inconsistent, but terms are also not defined. Such diversity in terminology makes comparing studies difficult.

Few studies offered disaster volunteer definitions but it seems that one would be helpful. The point of agreement in these definitions is that volunteers receive no compensation for their efforts. However, the term “paid volunteer”, again undefined, was used by articles not included in this study. Despite the lack of uniformity with definitions, combining components of definitions yields the following: *a disaster volunteer is any individual “engaging in helping behavior” related to preparing for, responding to, recovering from, or mitigating a disaster, “in which time is given freely to benefit another person, group”, or overall effort* (Vigo, 1996; Wilson, 2000, p. 215 cited in Richardson *et al.*, 2008; Michel, 2007).

A significant contributing factor to the lack of clarity of terminology is the diversity of disciplines of disaster volunteerism researchers. Disaster volunteer research has been published in a variety of journals by authors from a variety of disciplines. Researchers tend to cite only those in their own discipline to support their studies. Unlike other subject areas in the emergency management literature, few authors have repetitively studied disaster volunteers and few journals have published multiple articles on the subject. In other words, the disaster volunteerism

literature has been conducted by what Tierney (2007) calls episodic disaster researchers. Such diversity seems to contribute to why the research on disaster volunteerism has been not synthesized, is inconsistent, and has not built upon previous research.

The majority of articles in this review did not distinguish between response and recovery. Of those that did identify a phase, researchers failed to define what they meant when using that word or to otherwise describe tasks volunteers were engaged in. The type of tasks volunteers engaged in was not the primary concern for the majority of researchers, so information about the tasks were often completely absent, incomplete, or unclear making it impossible to retroactively determine what phase the volunteers in the study were engaged in. If disaster volunteers were identified accurately as either response or recovery volunteers, it would be easier to predict the timing of their involvement, the tasks they undertake, issues related to their engagement (e.g., training, travel, accommodations), and the impact of their engagement.

Clearly there are a number of gaps in this body of literature. This study will focus on one gap in particular, the lack of comparative research of response and recovery volunteers. This study hopes that by taking a broader view of volunteerism by being inclusive of different types of response and recovery volunteers that a clearer understanding of volunteer engagement will emerge.

Conclusion

This Chapter reviewed the factors the existing disaster volunteer literature suggests may be related to volunteer engagement in the broadest sense and/ or in specific aspects of engagement in response and recovery. The literature provides no further specificity upon which a study of volunteer engagement might be based. Thus, an exploratory, qualitative approach to the study is warranted. The methodological approach for this study of volunteer engagement in

response and recovery and the factors that seemed to influence it in the East Texas 2016 case are articulated in Chapter Three. The extent to which the factors identified in the literature were of theoretical significance in understanding volunteer engagement in East Texas is returned to in Chapter Twelve.

CHAPTER THREE: METHODS

Data collection for this study began when the researcher traveled to East Texas during a flood event in April 2016 to explore volunteer engagement in response. The researcher traveled to East Texas for a second time in August 2016 to explore volunteer engagement in recovery. This chapter presents the research design for this study in three sections. The first section provides a brief overview of East Texas including their recent disaster history. The second section explains the methodological approach, population and sampling procedures, data collection, and data analysis procedures used for this study. The final section considers the limitations of the study and the measures that were taken to minimize them.

East Texas

East Texas's close proximity to the Gulf of Mexico and the nature of the built environment means that the area experiences frequent flood events. In recent history, East Texans have been involved in a number of major disasters. In 2005 Harris County, specifically Houston, was central in assisting evacuees from New Orleans following Hurricane Katrina (Brodie, Altman, Blendon, & Benson, 2006). Later in 2005, they experienced impacts from Hurricane Rita (Knabb, Brown & Rhome, 2006); and, in 2008, nearby Galveston was hit by Hurricane Ike (Berg, 2009).

In a period of 13 months between 2015-2016, Harris County and surrounding counties experienced four flood-related Presidential Disaster Declarations (PDD). When a PDD is granted a community may receive Public Assistance, which may include reimbursement for response and funding for public projects related to the recovery, and/ or receive Individual Assistance, which provides minimal funding for various elements of individual and household recovery. As a result of the flood event on May 4, 2015, 2,082 residences were impacted (FEMA, 2015a) with 48

counties receiving Individual Assistance and 109 receiving Public Assistance (FEMA, 2015b). The next flood event occurred October 22 – 31, 2015 and impacted 3,286 residences (FEMA, 2015c). Sixteen counties received PDDs that included Individual Assistance, while seventeen counties received PDDs that included Public Assistance (FEMA, 2015d). Between April 17-30, 2016, the flood that is the primary focus of this study impacted 11,365 residences (FEMA, 2016a). One county received only Individual Assistance, fifteen counties received both Individual and Public Assistance, and an additional eleven counties received only Public Assistance (FEMA, 2016b). The fourth flood event during this time period included flooding between May 22 and June 24, 2016 (FEMA, 2016c). As of this writing, the Preliminary Damage Assessment (PDA) from the Federal Emergency Management Agency (FEMA) has yet to be publicly posted; thus, the exact number of impacted residences from this flood event specifically is unknown. However, twenty-three counties received Individual Assistance and an additional forty-three received Public Assistance (FEMA, 2016c). Table 2 compares PDD-related assistance from these four flood events.

Table 2

Presidential Disaster Declarations in East Texas 2015-2016

Event Dates	Counties Receiving Individual Assistance	Counties Receiving Public Assistance	Number of Residences Impacted
5/4/15	48	109	2,082
10/22-31/15	16	17	3,286
4/17-30/16	16	26	11,365
5/22 – 6/24/ 2016	23	43	Unknown

The greatest flood impacts occurred in slightly different areas for each of the four flood events as did the severity of those impacts and the aid made available by the federal government. The differences in impacted counties can be seen on the maps provided by FEMA in Appendix A. There were also two additional flood events and one tornado event during this 13-month time period in Texas that did receive PDDs but are not included here because they did not impact counties in East Texas (Federal Emergency Management Agency, 2016d; 2016e).

This study began with an interest in the April 2016 flood event. As a result of this specific event, there were eight deaths, 1,800 water rescues, and over \$5 billion in damage (Smith, Lott, Houston, Shein, Crouch, & Enloe, 2016). In total, over 11,000 residents were impacted (Federal Emergency Management Agency, 2016). The event was of significant enough scope and severity that it surpassed Texas' capacity to cope and several counties in the East Texas area were awarded a PDD including the counties where data was collected for this study. As data collection progressed the researcher found that participants had a difficult time separating the events. Many tasks, specifically in recovery, overlapped as the same communities experienced repetitive flooding. This was particularly the case for the April and June 2016 flood events.

Of all the counties that flooded in May 2015 only 28.10% of homeowners carried insurance (FEMA, 2015a), 14.91% in the October 2015 flood (FEMA, 2015c), and 14.68% were insured in the April 2016 flood (FEMA, 2016a). The percentage of insured homeowners in the June 2016 flood were not yet publicly available at the time of this publication. These numbers suggest that the majority of people affected did not have the benefit of flood insurance to help them through the recovery process and even if they did have some insurance, depending on their policy, it may not have covered the full cost of the damage.

East Texas, in this study, is used to refer to three counties where data collection took place including Harris County, Fort Bend County, and Wharton County. The location of Harris County, Fort Bend County, and Wharton County are depicted in Figure 1.

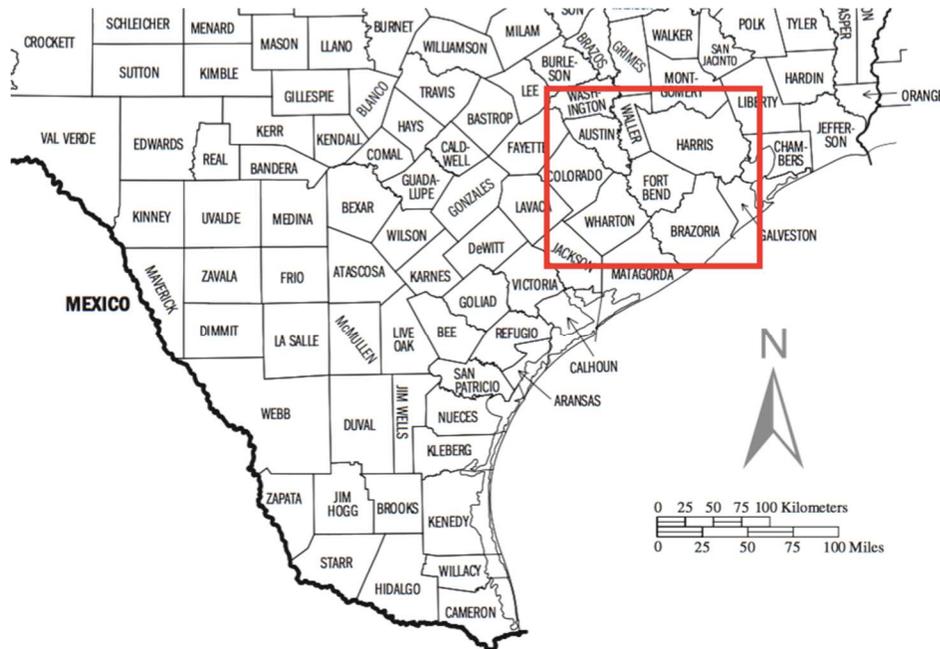


Figure 1: Map of East Texas. Adapted from “United States Census Bureau.” (2000). Texas County Outline [map]. Retrieved from https://www2.census.gov/geo/maps/general_ref/stco_outline/cen2k_pgsz/stco_TX.pdf

The total population, population by race/ ethnicity, and median household income of each county are included in Table 3.

Table 3

East Texas Demographics

County	Population*	Race/ Ethnicity *		Median Household Income**
Harris County	4,471,427	White	29%	\$54,230
		Black	18%	
		Hispanic	44%	
		Other	.09%	
Fort Bend County	724,104	White	32%	\$88,516
		Black	21%	
		Hispanic	26%	
		Other	21%	
Wharton County	42,332	White	45%	\$44,110
		Black	14%	
		Hispanic	40%	
		Other	.01%	

*Texas Department of State Health Services (2015)

** Texas Association of Counties (2014)

These three counties represent an urban area (Houston, Texas is located within Harris County), a more suburban area (Fort Bend County), and a more rural community (Wharton County).

Methodological Approach

Qualitative methods were the most appropriate approach for this study for three reasons. The first reason is the nature of the research questions. A qualitative approach is best when the research questions are exploratory in nature (Taylor & Bogdan, 1998). As demonstrated in the literature review, the topic of engagement and volunteers in disaster response versus recovery lacks a strong body of literature.

The second reason for a qualitative approach was also related to the issues with the existing literature. Qualitative methods are best utilized in situations where the previous research is inadequate because they allow for greater flexibility in exploring understudied topics (Taylor

& Bogdan, 1998). As discussed in Chapter Two, much of the disaster volunteer literature is of poor quality, offers conflicting findings, and is not generalizable.

The final reason qualitative methods were most appropriate is because data needed to be collected during a dynamic time period. Qualitative methods are the predominate methodology used in quick response research (i.e., research where perishable data must be collected immediately during/ following a hazard event) because of the flexibility it allows (Phillips, 2002). Quick response research was needed to explore the research questions because it allowed the researchers to observe human behavior “at its most open, realistic moments” (Phillips, 2002, p. 202).

This research design required quick response and in-person data collection for two reasons. First, quick response allows the research to collect valuable, perishable data from response and recovery volunteers in the community including making field observations. Collecting the data while volunteers were on scene and in the moment allowed for thoughtful and complete answers and likely minimized recall bias that could occur in retrospective interviews (Aaron, 1966; Dakin & Tennant, 1968; Gordon, 1976). Second, in order to have a diverse array of participants included in this study, in-person data collection was necessary. During response and recovery, the researcher needed to be on the ground to see where volunteers were congregating and to have access to spontaneous volunteers and emergent groups.

This study used a grounded theory approach from the outset. Grounded theory methods “consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories ‘grounded’ in the data themselves” (Charmaz, 2006, p. 2). This approach is an appropriate one for this study because it is well-suited for exploratory research questions and topics that lack a strong theoretical foundation. Grounded theory allows the researcher to

generate theory inductively (Charmaz, 2006). A grounded theory approach aligns with a primary goal of this study, to produce a set of factors that explain the engagement of response and recovery volunteers with the hope of future researchers using them to systematically study engagement. Ultimately, grounded theory allows the research to be flexible while maintaining a systematic approach throughout the data collection and analysis (Charmaz, 2006). This flexibility is particularly important for this research design because of the nature of the quick response setting in which the data collection took place and because of the exploratory nature of the research questions.

Sampling & Data Collection

Data were primarily collected through semi-structured, in-depth interviews. This type of interview allows the researcher to learn how participants view their reality (Taylor & Bogden, 1998). Open-ended interviews are particularly useful for collecting data immediately following a disaster as the flexibility allows the researcher to note nuances that may otherwise go unnoticed if a more rigid methodology were employed (Killian, 2002). Interviews were conducted following the Rubin & Rubin (2005) Responsive Interviewing Model. The Model suggests that interviews revolve around several open-ended questions with follow-up questions and probes used as necessary. Open-ended questions included 1) How did you come to be a volunteer during this disaster? 2) What have you been doing since you've been here? 3) How has your work gone? Challenges? Successes? 4) How do you think the overall response/ recovery is going? 5) What is your goal? What do you expect the outcome of your time here volunteering to be? See Appendix B for a complete Individual Volunteer Interview Guide and Appendix C for the Individual Volunteer Information Sheet provided to participants.

The researcher used a theoretical sampling approach. Theoretical sampling allows a researcher to select participants based on their ability to contribute data to emerging categories. The purpose of theoretical sampling is not to have a representative sample but rather to saturate areas of interest (Charmaz, 2006). Initial sampling is used as a starting point in grounded theory (Charmaz, 2006). In this study, initial sampling consisted of response volunteers. The researcher interviewed any willing individual engaging in response activities related to the flood event and who identified as a volunteer.

This research design utilized data gathered from multiple sources. Triangulation of sources compares data from multiple methods (Lewis & Ritchie, 2003). By relying on multiple sources of information the researcher is able to “confirm and to improve the clarity, or precision” (Lewis & Ritchie, 2003, p. 275) of the findings. Triangulation allows “the strengths of one method [to] offset the weaknesses of the other” (Dixon, Singleton, Straits, 2016, p. 329). The researcher triangulated sources by gathering data through interviews with response and recovery volunteers, interviews with key informants, field observations, and review of relevant documents.

Data collection took place over a period of five months. The first stage of the data collection process took place April 21—26, 2016. East Texas and several surrounding counties experienced flooding over the span of several days leading up the 21st of April due to a severe weather event. The researcher arrived while the area was still flooded and response was ongoing. Numerous nonprofits were on the ground and the Red Cross had several shelters open in four counties. Upon arrival, the researcher traveled around the East Texas area interviewing individuals who self-identified as volunteers.

On the first data collection trip the researcher initially thought she may conduct as many as 20-25 informal interviews with response volunteers. In total, 39 interviews were conducted with a combination of spontaneous and affiliated volunteers. Response volunteers were working on response related tasks such as sheltering, mass care, and distribution of food, water, and in-kind donations. Upon arrival in East Texas, the researcher went to the Houston Red Cross headquarters. She conducted a number of interviews there with long time Red Cross volunteers and obtained a list and access to the shelters currently opened. Throughout the week, the researcher visited two of the open shelters, a community meeting, a church, and the main meet up points of four response nonprofits. The researcher also walked around the impacted neighborhoods but was unable to find volunteers that were not volunteering at an established volunteer site. The researcher interviewed participants where they were volunteering while they took breaks or while they continued working.

In addition to the initial sampling of individual volunteers, a second source of data has come from interviews with informants. It became clear through informal conversations in the field that conducting interviews with key individuals who themselves are not volunteers but have insight into disaster volunteer engagement that would be useful (i.e., emergency management officials, community leaders, and volunteer coordinators). Theoretical sampling allowed the researcher to include these individuals as participants in the study. Informants provided important contextual clarification related to what may have influenced volunteer engagement during response and recovery.

Open-ended questions to the key informants included 1) Tell me about your involvement with this disaster. 2) Tell me about your involvement with volunteers during this disaster. 3) How has your work gone? Challenges? Successes? 4) How do you think the overall response/

recovery is going? 5) What is your goal? What do you expect the outcome of your time here volunteering to be? See Appendix D for a complete Key Informant Interview Guide and Appendix E for the Key Informant Information Sheet provided to participants.

Over the next three months, the researcher maintained contact with voluntary organizations and emergency management officials in the impacted area. In June 2016, East Texas experienced another flood. This flood impacted some but not all of the same communities that had been impacted in April. In August, the researcher felt enough time had passed that the communities would be well into the recovery process (from both the April and June flood).

The second stage of the data collection process took place August 3-8, 2016 when the researcher returned to Texas. Since the initial data collection phase, the researcher had maintained contact with a number of nonprofits working in the impacted community. Additionally, the researcher had been monitoring community social media sites and online news reports to determine the evolution of the recovery process. A cursory look through the social media pages of well-known disaster recovery nonprofits seemed to confirm there were volunteers in East Texas assisting with the recovery. Over 3,000 homes were flooded in the initial April flooding. This amount of damage indicated there would be a lengthy recovery period.

After reflecting on the initial interviews conducted during response, it became clear that there was a need to conduct interviews with more than just volunteers in recovery as well. The researcher conducted interviews with individual recovery volunteers, but also conducted in-depth interviews with individuals in positions to speak about disaster volunteerism in East Texas. These informants were individuals who were knowledgeable about the response, recovery, and what preceded them. Before going on the second data collection trip the researcher conducted

interviews by phone with some informants. In total, twenty-one interviews were conducted with individuals who were volunteer coordinators/ executive directors of agencies who hosted response and/or recovery volunteers, emergency management officials, and community leaders.

The researcher returned to the community anticipating that an additional 20-25 informal interviews with recovery volunteers would be required to reach theoretical saturation. In total, 26 interviews were conducted. Recovery volunteers were working on recovery tasks related to donations management, debris removal, mucking and gutting, and rebuilding. Anyone who was volunteering in the impact area or in service to the impacted area regardless of whether they were local or non-local, spontaneous or affiliated were eligible participants. Recovery volunteers were found by contacting voluntary organizations, local faith communities, emergency management offices, and by getting recommendations from individuals who were a part of the long term recovery committees and local VOADs. The researcher also traveled through the impacted communities in search of volunteers who were not associated with an organization but was unable to find any.

When the researcher arrived in East Texas for the second data collection trip she found that communities across East Texas were engaging in recovery related to not only the April and June floods but also floods dating back to May 2015. Some communities had only been impacted by one flood event while others had been impacted by multiple flood events.

The following table shows the total number of interviews that were conducted (n=72) including whether the participant was an individual volunteer, informant, or both and if they participated in response, recovery, or both. Table 4 provides a summary of the participants included in this study.

Table 4

Interview Participants by Type and Phase

	Response	Recovery	Both	Totals
Individual Volunteer	32	19	0	51
Informant	2	6	5	13
Informant & Volunteer in Texas	4	1	3	8
Totals	38	26	8	72

The third source of data for this study comes from field observations made by the researcher. The majority of interviews took place in the setting within which volunteers were working. This allowed the researcher to make observations about the setting within which volunteers were working. More broadly, the researcher observed the flooded areas, nonprofit offices, and other locations in the field that provided additional insight onto the research questions. Among the benefits of doing field observations is that the researcher can observe if volunteers are exhibiting the behavior they report during interviews (Corbin & Strauss, 2008). Additionally, “persons may not be consciously aware of, or be able to articulate, the subtleties of what goes on in interactions between themselves and others.” (Corbin & Strauss, 2008, pp. 29-30). In combination with interviews, it provided the opportunity for the researcher to make observations and then discuss those observations with participants (Corbin & Strauss, 2008). The researcher made voice recordings of her observations while in the field and transcribed them taking care to distinguish between observational and theoretical notes (Creswell, 2013). This approach was used during both data collection trips and yielded numerous findings and provided valuable context for the researcher.

The final data source for this study are documents and other multi-media sources. These documents include city plans that include provisions for volunteer management and/or volunteer recruitment material provided by the city or voluntary organizations. For example, on the initial data collection trip the researcher observed a number of radio and television advertisements from the Red Cross that were being used to recruit and direct individuals who were interested in volunteering. The advertisements and frequency of their airing provided valuable context regarding potential motivations for why individuals engaged as they did.

The researcher received approval from the Institutional Review Board (IRB) before beginning the study. As is expected when using qualitative methods, the researcher sought and received approval for an amendment to the original IRB approval. See Appendix F for the IRB approval.

While it is not anticipated that there would be consequences to participants if it became known that they were interviewed, efforts have been taken to protect their identities and their associated organizations. Participant names and any other identifying information was removed for the purpose of reporting the data. The researcher did leave in the names of large voluntary organizations as 1) it was central to understanding the story of engagement and 2) they host so many volunteers that identifying specific participants is not likely to be possible.

Data Analysis

The grounded theory approach calls for data analysis to be continuous throughout data collection Charmaz (2006). Data analysis occurred throughout and after data collection was completed. Analysis was conducted consistent with the coding process outlined in Charmaz (2006). Initial coding was first done line-by-line to inductively determine specific categories from the data; and, afterwards, focused coding was used to test the categories found during line-

by-line coding against the remaining data. Field notes were compiled into a narrative and then coded against the categories garnered from the analysis of the interviews (Kutsche, 1998).

In addition, memo writing, diagramming, and use of concept maps were used throughout the data collection and analysis process for reflection but also to help integrate and synthesize findings from the multiple data sources (Charmaz, 2006).

Limitations

Though not a goal of the study, the primary limitation is that the findings will not be generalizable (Taylor & Bogdan, 1998). There is always the possibility that the study does not have a representative sample of individuals that volunteered during the response and recovery and that the findings are not true for the larger population in this case. However, the researcher took steps to address this issue by using triangulation of sources. It is unlikely that interviews with individual response and recovery volunteers, informants, observations, and key documents did not lead to a clear understanding of the factors in the case of East Texas.

A second limitation is using a single case study to generate potential factors. In an effort to mitigate this limitation the researcher conducted a thorough review of the literature. Thus, the final list of factors is not only a product of this single case but also the literature.

The researcher is using two approaches to increase the credibility and transferability of this study. The first is the use of a reputable methodological approach. Grounded theory is well-established approach used by qualitative researchers that provides credibility to this study (Charmaz, 2006). Secondly, the researcher is using Guba's Model of Trustworthiness to check the quality of the research (Krefting, 1990).

The Model is based on assessing truth value, applicability, consistency, and neutrality of the research. Truth value is essentially concerned with the credibility of the data collected from

participants. In this study, the triangulation of sources contributes to ensuring credibility. Applicability is concerned with the generalizability of the findings. The findings of this study will not be generalizable based on the research design used, which is common in qualitative research (Krefting, 1990). However, the researcher has made every effort to describe the exact methodology used so that other researchers have the opportunity to replicate the study in other cases (Lincoln & Guba, 1985). Consistency in qualitative research can be difficult. However, Krefting (1990) says that inconsistency is acceptable as long as the researcher can identify what has caused inconsistency in findings. Finally, neutrality is concerned with minimizing outside biases from influencing the data. Krefting (1990) contest that neutrality in qualitative research is achieved by virtue of truth value and applicability being tested. Throughout the data collection and analysis, the researcher checked the findings against the Model of Trustworthiness.

Conclusion

Chapter Three outlined the research design for this study. Specifically, it reviewed the methodological approach, sampling and data collection procedures, data analysis approach, and limitations. Next, Chapter Four describes the volunteer engagement during response to the flooding in East Texas.

CHAPTER FOUR: VOLUNTEER ENGAGEMENT IN RESPONSE

This chapter describes volunteer engagement during the response to a flood event in East Texas in April 2016. Disaster response is defined here as the period when a hazard event is imminent, occurring, as well as afterward when immediate actions are taken to save lives, property, and the environment (e.g., Mileti, 1999; Tierney, Lindell, & Perry, 2001). In this study, engagement is defined as the different types of volunteers, overall number of volunteers, the tasks and activities volunteers engage in, and the duration of their engagement in response. This Chapter briefly reviews the scope of the immediate impacts experienced as a result of the flood event and provide some contextual information about the impacted communities. Next, a description of each volunteer site that the researcher visited during response is provided, including where interviews were conducted and observations made. Finally, some general observations that were made about the response by the researcher are presented. Following this chapter, the researcher presents the factors that were found to explain the engagement of response volunteers as described in the following pages.

Beginning on April 17, 2016, Houston and surrounding counties experienced a 24-hour rain event in which more than 17 inches of rain fell ultimately culminating in devastating flooding throughout the region (Smith, Lott, Houston, Shein, Crouch, & Enloe, 2016). This flood was just one of what has become a chronic flooding problem in Houston as climate change has led to more frequent storms and recent development projects have made the area more prone to flooding (Satija, Collier, & Shaw, 2016). As the full extent of the damage became known, twenty-seven counties received a Presidential Disaster Declaration (PDD) (Federal Emergency Management Agency, 2016).

Many more hazard events occur each year than receive a PDD designation; and, among those events that do reach this threshold, only the worst include Individual Assistance. In the April 2016 flood event, Public Assistance alone was awarded to eleven counties and one received just Individual Assistance. An additional fifteen counties, including Harris County, received both Public and Individual Assistance, indicating that there was widespread, serious damage (Federal Emergency Management Agency, 2016). Initial damage assessments reported 11,365 residences were impacted with the majority having either major or minor damage (minor damage requires less than 30 days of repair and major damage requires more than 30 days) (Federal Emergency Management Agency, 2016).

Based on the researcher's observations, the impacted individuals and households were of varying socioeconomic backgrounds consistent with the demographics presented in Chapter Three. Some of the areas that were impacted had flooded before while others flooded for the first time (see Appendix A for detailed maps of the affected areas). Overall, East Texas was not new to disastrous flood events. As one emergency manager said, "Of course we've had floods here. I came in '92. There was a flood in '91, '98, and 2004. Then two in 2016. So, unfortunately, we have a lot of experience with this." Another explained that even though flooding was not unusual, this flood was different from previous events in that it affected such a widespread area.

It was such a regional event rather than a local event. Many times when flooding starts here, we may get some counties upstream, Colorado County, Fayette County that may flood but it's all along the river. Now we had the flooding in Houston which is a tremendous number of people that needed to be sheltered, as well as here.

The local government, media, voluntary organizations, and volunteers engaged throughout the response. The water rose quickly in many areas so the governmental emergency response was focused on warning dissemination and evacuations during the flood event. In East Texas alone, 1,800 high water rescues were conducted throughout the flooding (National

Oceanic Atmospheric Administration, 2016). The nature of the flooding, overland flooding combined with an overwhelmed water management system, led to different areas of East Texas flooding at different times and to varying severity throughout the week. Once the rain stopped, there were still areas throughout East Texas that needed to be drained and areas where officials had concerns regarding the integrity of the flood infrastructure.

These efforts were further complicated because parts of East Texas, specifically Houston, are highly susceptible to roadway flooding. Based on televised news conferences, government officials seemed primarily concerned with tasks related to warnings and managing evacuations. The uneven nature of the flooding resulted in complex and evolving warning dissemination and evacuation instructions to the public. As suggested by the number of high water rescues conducted, many people were still out on the roads driving during the flooding. In total, seven people died, primarily as a result of driving into flood waters in Houston (Yan & Lavandera, 2016).

The Mayor of Houston held several press conferences throughout the flood. Mayor Turner had come into office just a few months before the April flood event. Some volunteers speculated that this contributed to his active presence during the flooding. From the perspectives of locals volunteering at the shelter, the Mayor was adequately addressing the response-related needs of the community. Later in the week, the Mayor held several community meetings to address questions and concerns about the transition from response to recovery. There were many community members who expressed concerns about their immediate, short-term recovery needs rather than response-related issues such as how to navigate the process of receiving federal assistance or where they would live while their homes were being repaired.

The local media was on-scene covering the flooding as the situation evolved. Local media shared information about the evacuation instructions, road closures, shelter locations, donation drop-offs, and suggestions for volunteer opportunities. Their video coverage captured several of the dramatic high water rescues that made national news. However, one neighborhood in particular, Greenspoint, was the primary focus of media and community attention. Despite the large geographic scope of the flooding, one area in Greenspoint, a low-income neighborhood made up primarily of dozens of apartment complexes, became the focal point of the flooding in the media.

Volunteers played a central role during the response to the April flood event. Voluntary organizations of various types and size were engaged in the response including large, national Voluntary Organizations Active in Disasters (VOADs), local nonprofits without a specific disaster mission, and faith-based organizations. These formal nonprofits were engaged throughout the impacted communities. However, it was not necessarily within the context of these voluntary organizations that volunteer engagement took place in response. Individuals from the local community also volunteered their time where there was an absence of formal organizations.

Volunteer Sites

The researcher found volunteers working to address unmet response-related needs throughout the impacted community at a number of “volunteer sites”. The researcher observed that the physical location of volunteer sites were either at the headquarters of a voluntary organization (operations-based location) or at a central community location (needs-based location). When a volunteer site formed at the headquarters of a voluntary organization, the staff

of that organization was largely responsible for coordinating the volunteer site and determining which tasks need to get done, when, and by who. One informant explained,

A community organization... Not only was that a central location that we could get people to but they had a better understanding of who needed what. That particular part of town is unique in that it has a high poverty level. We weren't involved in opening it [the shelter]. We were involved in that we helped monitor it and we went to make sure there was nothing that they needed. We had to prepare for the flooding ourselves, and we monitored, we went to volunteer over there at the shelter. When there was people at the last minute that needed to get out, we made sure that they got over there to the shelter.

Some volunteers just joined a volunteer site that had already started to form.

It's just because the [other disaster organization] asked. When the flooding started on Monday morning we had small groups go out and knock on doors to ask what they need. Someone told me they heard the church was doing this so we kind of contacted the church and set up here.

Finally, some volunteers established volunteer sites through a process of finding unmet needs in the community. One volunteer explained,

We have a couple groups that are out just looking for trailer parks. We found one trailer park yesterday that nobody had been able to get into. The trailer park themselves wasn't flooded but they had no power and were surrounded by water so no one could get to them. If you don't have power for three days you start running out of food. It's like, we want to help you but we can't get to you! You know, so it's things like that. Trying to identify groups. There's certainly neighborhoods that were more affluent who said, 'we're fine. Go find someone else who really needs the help. We're okay'.

The researcher was able to observe six locations where volunteers engaged in various response related activities. The first volunteer site the researcher visited was the headquarters of the Houston chapter of a national disaster voluntary organization.

Red Cross Headquarters

Throughout the response, this organization operated from their Houston headquarters. The office, located in downtown Houston, was spared from the flooding which seemed to facilitate their quick activation. As is typical of disasters, this organization called in volunteers

from all over the country. Everyone working at the headquarters was either staff or an affiliated, trained volunteer with the organization.

The headquarters was bustling with dozens of affiliated volunteers working on activities related to shelter operations, phone banks, affiliated volunteer check-in, and working to provide other services to the community in response to the flooding. Specific areas throughout the office were sectioned off for each area of activity. Despite this apparent organization, individual volunteers seemed disoriented. There was a constant stream of volunteers wandering from section-to-section looking for answers to questions on the tasks in which they were engaged. Interactions between the researcher and the volunteers revealed that many did not know who to report to, how to find answers to their questions, or what they should be doing. This frustration seemed to take a toll on some volunteers with some reporting that they had given up trying to find what they were supposed to be doing. Several took the approach of sitting down and waiting for someone to come assign them something to do. The researcher asked one volunteer what he had been doing since arriving at the site early that morning,

We started loading the trucks up so they could go out. **Have you been doing that all day?** For a few hours. **What about the rest of the day?** Sitting around looking cute.
laughs Waiting for my deployment assignment.

These volunteers were all affiliated, meaning members of the organization, trained, and had deployed to multiple disasters. Some volunteers had only been on one or two previous deployments while others had been going on deployments for 30 plus years. They all reported that this deployment was typical of their previous experiences.

Houston Shelter

Across town, the organization opened an athletic center as a shelter for displaced residents. According to the facility manager, the athletic center was a designated shelter in the

city's emergency plans but had not recently been used as one. Its close proximity to flooded areas, including Greenspoint, and the size of the facility made it a logical shelter choice. The shelter was opened April 18th. The number of residents staying at the shelter fluctuated throughout the week but as of Friday morning, April 22, five days after opening, there were 242 people staying at the shelter, making it largest open shelter in East Texas. As of that night there were nine shelters open across four counties.

Despite being opened by an organization, the shelter was primarily staffed by local, unaffiliated, spontaneous volunteers. Several of these volunteers took on leadership positions and demonstrated significant dedication to their role of running the shelter. Other locals came to volunteer for just a few hours a day. Only a couple of these local volunteers reported having called the organization to register as volunteers before coming to the shelter. The researcher could identify no differences between individuals who called to register beforehand and those volunteers that self-deployed to the shelter when it came to their engagement. Neither group of volunteers were given formal training or directions from the organization on-site. Throughout the week affiliated volunteers from out-of-state made their way to East Texas and the shelter in Houston. Yet, as of Friday, relative to the local volunteers, there were very few formal volunteers working at the shelter at any given point.

The majority of the volunteers said they came straight to the shelter once they had the time and ability to do so. Very few reported going to other locations first in their pursuit of a volunteer opportunity. A few volunteers tried calling the organization and while some were successful in this endeavor, those that were unsuccessful still went to the shelter and started helping. At no point did any local volunteers do any training with the organization; nor, it would

seem, did they take instruction from any of the affiliated volunteers assigned to the shelter while they were working at the shelter.

Volunteers ran every aspect of the shelter. For example, a local volunteer who had been working since the shelter first opened took it upon herself to create a volunteer sign-in sheet and help coordinate the volunteers because she observed that no one else was doing so. To be clear, not all volunteers working in the shelter signed-in or received their assignment from her. Some volunteers arrived at the shelter and, without signing in, began addressing needs as they found them. Still, local volunteers attempted to bring structure to the volunteer site.

A significant amount of improvisation occurred at the shelter. The structure of the shelter was developed by the local volunteers as they arrived. Volunteers reported that over the five days that the shelter was open, no formal organization provided them direction or provided a mechanism within which to operate, including the organization that was “overseeing” the shelter. Volunteers were largely on their own to solve problems.

A handful of spontaneous, unaffiliated, local volunteers took on leadership positions. One such volunteer explained how he came to be in charge of the feeding operation for the shelter. On the day the shelter opened, his friend, an employee of the athletic center, called and asked him to come help. Upon his arrival, he found a single affiliated volunteer from the organization that was to oversee the shelter and supported hundreds of arriving evacuees. Seeing an urgent need, the volunteer quickly set up operations running the kitchen. He took on the responsibility of providing three meals a day to the hundreds of residents and volunteers throughout the week. He negotiated the delivery of food from local restaurants and met with the health department on multiple occasions. He organized volunteers to assist him and assigned them specific tasks at a meeting he organized each day. Though he had volunteered during previous disasters he had

never worked in a shelter before and had no experience running a kitchen. Despite his inexperience, he saw a need and found a way to address it.

While some local volunteers quickly took on leadership positions and worked to organize other short-term volunteers, many local volunteers came to help for only a few hours. The local volunteers self-organized to ensure that the different task areas around the shelter (e.g., clothing distribution, the kitchen, childcare, etc.) were addressed. When a volunteer needed to leave for the day, they trained their replacement about what needed to be done related to that task. When a new volunteer took over a task without being given instructions, they reported that what needed to be done was simple enough to figure out on their own.

As with the situation at the headquarters of the organization, the volunteers working in the shelter did not previously know each other. At some point in the week, the local volunteer who had taken on the role of “volunteer coordinator” had the idea to give volunteers name tags on neon green tape. This tape was the only way to identify who was a volunteer. It seemed that the “day” volunteers learned only the names of one or two people that were in a leadership position suggesting their temporary and recent involvement at the shelter. More frequently, volunteers identified one another based on the task they were doing (e.g., the woman running the clothing distribution) or by some physical feature (e.g., the man wearing all red).

Towards the end of the week, additional affiliated volunteers arrived from out-of-state. Tension developed between the affiliated volunteers and the group of local, unaffiliated volunteers that had taken on leadership positions. Over the week, the local volunteers had developed their own structure or, way of running the shelter. The arrival of affiliated volunteers from out-of-state changed the dynamic of the shelter and led to frustration among the volunteers who had been working all week. With little to no warning, local volunteers were required to

report to people they perceived as outsiders. They were reprimanded for having accepted in-kind donations and criticized for how they had run various aspects of the shelter, including the kitchen. Participants also reported personality conflicts between the affiliated and local volunteers.

Wharton Shelter

Wharton, Texas, located west of Houston also experienced severe flooding that warranted opening a community shelter. Wharton, Texas is a small community of about 9,000 people. The socio-demographics of the area is varied with some neighborhoods defined by households living in poverty. Like Houston, Wharton has experienced flooding in the past. One resident said she evacuated for flooding concerns about once every six months.

Flooding in Wharton began when the river that runs through town started to rapidly rise. When it became clear that the shelter would need to be opened, the local community took action. The shelter was opened on April 20th and closed about April 23rd. There was variation in the exact number day-to-day as evacuees came and went, but on April 21st, there were approximately 33 people staying at the shelter.

The Red Cross was unable to send volunteers to Wharton to open the shelter so members from the local community did. The community opened the shelter at the local elementary school. A local community member ran the shelter and individuals from throughout the community arrived at the shelter to volunteer. A local emergency management official confirmed they had requested the Red Cross to open a shelter in the community when the flooding first started. He was told they were already overwhelmed by their response in the Houston area and would not be able to send supplies or affiliated volunteers to the community for several days. The official did note that their community was capable of taking care of themselves during the response. He also

noted that the Red Cross had opened the shelter during previous flood events, providing additional evidence for the unusually large size of the event. The emergency manager explained the process of opening the shelter.

That's actually where the volunteerism started, at the shelter. Because at the same time we were getting the flood here they were getting all of the flooding in Houston. So by the time we got ahold of the Red Cross, they didn't have any resources. But we did have a lot of people who had volunteered at a previous flood. So, we called on them and we actually set up the shelter ourselves. We don't ever do that, but in this case we had to. The Red Cross said they could get here eventually, just not when we needed the shelter opened. We have essentially a bunch of cots that are staged here. So we had access to that. We've almost not had a need for personnel from the Red Cross because we always have people from the town there to help. The restaurants in town provided meals. We didn't solicit that, they just showed up. It's always been like that.

Even without outside support, this community was able to meet the needs of those affected by using all local volunteers.

One volunteer at the shelter was also staying there as an evacuee. She explained that upon arriving at the shelter, she could not sleep. Seeing that there was work to be done she began helping around the shelter. Other volunteers were from the neighborhood where the shelter was located. They saw what was going on at the shelter and walked over to help. One local church was extensively involved and supplied the majority of the volunteers. They had about 50 volunteers helping at the shelter, going to local businesses to ask for donations, going door-to-door to help people to evacuate, and checking on residents who did not want to, or were unable to evacuate. As the flood waters cleared, these same volunteers went out into the community to do an initial damage assessment to determine when evacuees staying at the shelter would be able to return to their homes.

The shelter in Wharton was significantly smaller than the shelter in Houston. The volunteers working at the shelter knew each other by name and knew who to talk to when they had questions. Like the Houston shelter, the volunteers in this community had not been a part of

any advance planning for how to run a shelter nor were any of them associated with disaster organizations though, some had volunteered at the community shelter during previous flood events. Nevertheless, the shelter was well coordinated. As was the case with the shelter in Houston, they had plenty of food, water, and clothing donated by members of the community. When they ran out of supplies, they were able to send volunteers into the community to ask for donations from local businesses. In both the case of Houston and Wharton, businesses were largely unaffected by the flooding and, as a result, were a resource throughout the response.

Local Church

In impacted communities throughout East Texas, churches were hubs of activity and volunteerism. One church in the Greenspoint neighborhood served as a distribution site for food and items that were of immediate need to affected individuals. The church site was where donations were accepted, organized, and distributed to those in need. The volunteers were primarily members of the church, though volunteers from other churches throughout the city also took volunteer shifts to help throughout the week. Some volunteers worked every day, all week while others just stopped by for a few hours as their schedules allowed. By the time the researcher arrived at this particular location, the site was established and well-coordinated. The entire location was coordinated by an individual who worked for the church. She checked volunteers in as they arrived, gave them directions on where to go, and assigned them tasks.

The general atmosphere of the location was positive and upbeat. Volunteers reported they were grateful for the opportunity to help their church and the community. However, there did seem to be an underlying group pressure to volunteer. Some of the volunteers alluded to feeling slightly obligated to be there volunteering because there was an expectation from their peers to help. No other volunteers included in this case study expressed similar sentiments.

This same church also hosted the mobile units from the Red Cross and the Salvation Army on their property. One organization handed out meals to affected individuals. This was arranged so that individuals could have one central location to find the resources they needed. There was no specific pre-flood plan for co-location among groups to occur. Leadership at the Salvation Army headquarters across town made the connection with the church when the flooding began. Though they were co-located, volunteers reported that the church and the other disaster organizations rarely shared volunteers, resources, or information to any real extent. Volunteers reported co-locating was a good experience and was useful for individuals looking for their services.

Salvation Army Headquarters

The Salvation Army has a headquarters located in the city of Houston. Like the Red Cross, their building was unaffected by the flooding so they were able to use it as the hub for their operations. On April 25th there were about five volunteers and a similar number of staff at the headquarters. The majority of volunteers were out in the affected communities at the time of the researcher's visit. The volunteers located at the headquarters were coordinating the volunteers in the field and providing them with directions and supplies. There was an organizational structure and volunteers seemed coordinated. The volunteers at the headquarters reported that they were using primarily pre-trained, affiliated volunteers both from Houston and other nearby communities in Texas. They did note that they had *some* individuals who were unassociated with the church come to the headquarters looking to volunteer. In these cases, spontaneous volunteers were able to sign-in and were assigned a task. The person overseeing the site noted they were not in any way overwhelmed by these spontaneous volunteers but also were not understaffed.

Another national disaster nonprofit was co-located at the Salvation Army headquarters. This particular organization provides meals for survivors, volunteers, and first responders during disasters. Before deploying to East Texas, they contacted the local Salvation Army chapter to make partnership arrangements. Throughout the week volunteers with the national group made meals and gave them to the Salvation Army's mobile units to distribute throughout the impacted community.

The national organization used trained, affiliated volunteers to do the primary cooking. Local volunteers either from the Salvation Army or spontaneous local volunteers who showed up supported the core volunteers as needed. Though dependent on volunteer labor, in total, very few volunteers were actually needed to help. The national organization did not seem to have many volunteer coordination needs. It is not clear if this was because they were using their trained volunteers, because there were simply not that many volunteers, or because the coordinating responsibilities were provided for them by the Salvation Army. The overall atmosphere of the site was positive though it was clear that the volunteers were tired from a long week.

Houston Food Bank

The media was primarily directing individuals looking to volunteer to the Red Cross however there were a few news articles online that also suggested the Houston Food Bank needed volunteers. The Houston Food Bank is a large organization that works year round to serve almost 80 million meals annually throughout the Houston area by utilizing volunteer labor.

According to an employee, the Houston Food Bank was not open to volunteers during the two days at the height of the flooding. While their building itself was not flooded, the roads around it were which prevented volunteers from getting to the food bank. Once cleared,

volunteers began arriving to help. Some were regular volunteers while others were there because of the recommendation from the local media.

In the days leading up to the flooding, the Houston Food Bank prepared “disaster boxes” that could be deployed immediately after the flooding. The boxes were prepared by the food bank’s regular volunteers and additional assistance was not required to complete that task. While there was no uptick in volunteers before or during the height of the flood, in the days following, volunteers showed up and called in larger numbers than was typical. According to an employee, they had an adequate number of volunteers but could have found additional work if more people had come to volunteer.

The food bank was a highly coordinated operation. They were largely working within their day-to-day structure on similar tasks. It appeared well within their ability to coordinate volunteers and meet the increase of needs within the community. Despite the increase of needs and volunteers, the staff and volunteers appeared to be in good spirits and far from overwhelmed.

Community-Wide Observations

The researcher spent time in the community outside of specific volunteer sites. While in East Texas the researcher learned from participants that the Mayor of Houston, was holding community meetings to discuss issues related to the ongoing response. The researcher also spent a significant amount of time driving and walking around different neighborhoods that had been impacted in East Texas to gain a sense of what was going on throughout the community. These community-wide observations helped the researcher better understand the ongoing volunteer engagement in East Texas.

With such widespread flooding, the water receded at different rates throughout the impacted area over the course of the week. This reality led to a staggered individual and

household re-entry process. Driving around the city and surrounding areas was difficult because many roads were closed either from being damaged by floodwaters or because they were still submerged. Some of these roads simply had barriers and signs discouraging anyone from entering while others had police presence. Police officers at these barriers noted they were there to prevent people from entering the area, protect empty homes, and, in one case, because there was concern about the integrity of a nearby dam. They said that over the course of the week only a few people had stopped to see if any help was needed. On such occasions the police directed them to call the Red Cross.

The researcher drove through eight flooded neighborhoods. The researcher found a voluntary organization present in only one neighborhood and it was in the form of a single mobile unit driving through handing out meals. There was no other sign of voluntary organizations or volunteers in any of the neighborhoods. Some neighborhoods during that week were starting to muck out as was evidenced by the piles of debris in front of homes, but, at the times the researcher drove through, there were no visible volunteers helping.

Toward the end of the week, the researcher heard that there were volunteers going out into the community to muck out homes. The researcher found out about this activity from social media posts and conversations with locals. The researcher contacted a number of churches who were coordinating these activities and confirmed that they were sending volunteers out. These volunteers fell within what the researcher considered recovery volunteers. Given how short response is and the fact that the researcher was alone, she prioritized speaking to response volunteers during this first trip. Yet, it is important to note that volunteerism related to recovery was beginning in the community within a week of the start of the flood event.

Volunteer Site Structure

At each volunteer site, a structure developed for welcoming volunteers when they arrived, assigning tasks to volunteers and communicating with the volunteers throughout the day. Upon arrival at the volunteer sites, volunteers either created or integrated into the structure of the location. It did not seem to matter if it was a formal voluntary organization or a collection of non-affiliated volunteers coordinating the site, just that there is some type of coordination. Spontaneous volunteers either integrated into a pre-existing voluntary organization working at the site or formed some semblance of an organizational structure as they worked to address needs together. Three of the volunteer sites included here were coordinated by an established voluntary organization. For example, the food bank was operating within their regular day-to-day structure. The site was being coordinated by the members of the organization, and primarily using their affiliated volunteers. In these few cases, the structure of the volunteer site was already developed. At two of the three sites, when volunteers arrived they went through an established process of signing in, were assigned a task and told what to do. In other words, this structure dictated what the volunteer would be doing at the volunteer site.

They just tell you what to do. Someone comes and finds you. I was doing the canteen today but tomorrow I'll be managing a kitchen in a shelter with 300 to 400 people. We'll see how that goes.

The Food Bank managed to run like a well-oiled machine even under the pressure.

No problems. Each one coordinates their own distribution that they're doing but we have an overseer that makes sure everyone is in sequence. So the overseer assigns people.

One of the three sites that was being coordinated by an established organization did not seem to be functioning as smoothly as the other two sites. Their affiliated volunteers were not clear on what their assignments were or where they should go when they arrived on site. The leadership of the site was working to address needs as they arose and affiliated volunteers in non-leadership

positions waited until they finally received instruction. So, in these three cases voluntary organizations were overseeing the coordination of the volunteer sites, though to vary degrees of success. However, at other volunteer sites, there was no pre-existing structure that organized the site. In these cases, the volunteers themselves developed the structure. As volunteers arrived at the volunteer site some took on leadership positions and had to work together to develop the structure. Over time, a structure began to emerge and facilitate the organization of the volunteers and tasks at each site. Yet, even as the structure developed there was significantly more autonomy among the volunteers working at this site.

One shelter in Houston was officially being run by the Red Cross but it was clear through both observations and interviews that it was actually being coordinated by local volunteers.

The Red Cross said they could do something but the big, main stuff like handling food they wouldn't do. So those people sort of organized themselves and were good about taking people in. It just took a few days to get that settled.

I thought it would be a lot more organized. I thought they would have people there that knew what they were doing. I didn't think it would be just one guy.

So we started with all the food in the back. Tons and tons of donations and we didn't know what to do with them. So I just said, let's just start sorting them out rather than just having boxes thrown in there. So we got a team together.

This same situation occurred to an even greater extent at the shelter in Wharton. There was no voluntary organization coordinating the shelter. The local community, with the assistance of a local church, coordinated the opening and operating of the shelter. In the absence of a voluntary organization, volunteers came together, established volunteer sites, and coordinated with one another to address the needs in their community.

Most people have been really good about it and being really patient with us. You know, this doesn't happen all the time so we're learning. We're just making it up as we go I guess.

Yes, I forgot her name. It was hard though. There aren't specific places to check in. I just asked around until somebody gave me stuff to do... No. I have not signed in. They just gave me a name tag.

I signed in and got in touch with [another volunteer]. I've just been floating around. I just kind of help out where ever I can during breakfast and lunch in here, or helping upstairs with the clothes. Just kind of being available. Within about 2 minutes someone says, 'hey can you come help us'.

Basically what I did was that I found whoever looked like they knew what they were doing and said, okay, what can I do to help you. The more you were there, the more involved you were, the more it became more understood that some people knew what they were doing with certain things. The more I was available the more I offered to help, the easier it was for them to ask me to do things and trust me. So just through working together it kind of came together. We didn't sit down and have a talk or anything. It was like, I'm running this way and you're running that way can we switch items to save some time.

A local volunteer who ended up in a leadership position at one of the volunteer sites explained the disorganization at one of the shelters before the local volunteers were able to organize themselves.

The rush of people. The disorganization. There was no organization, there was no order, it's going to be constant chaos the whole time. They didn't even try to fix it or make a plan... people are not getting in sync. She's over here sending in her guy, she sent over her field agents to start asking questions but she's not talking to who is in charge. Who is in charge? We don't even know. But she's not getting in sync with anyone.

While it took some volunteer sites a few days to organize themselves they all ultimately were able to coordinate and address unmet needs.

Some observations were true across volunteer sites. One such observation is that at each site a group dynamic formed. It seemed that the longer an individual was there volunteering the more they felt like part of the group. This dynamic was most often positive,

It's pretty good. There's only one member of the group who I haven't seen interacting with the group yet but not in a negative way. Just like, maybe this person is more uncomfortable. Maybe they're from a part of the country where they're not as open as western/ southerners who tend to talk to everybody.

It's been fine. All the workers and volunteers are real friendly. Everyone's just trying to help.

Really good. I mean I've seen a lot of people. We've talked and we've laughed. It's been really good.

So great. The people have been awesome. You can feel the love. When there's a crisis it doesn't matter about people's differences. Everyone just comes together. This has been a really diverse area so we have all ethnic backgrounds. We also have other people come who are philanthropists, you know, the people with money. They came and bought shipments and gave things out.

Though they were working hard most of the volunteers managed to have a good time. It seemed that the formation of these relationships contributed to each volunteer site feeling and operating like a cohesive group and contributed to the coordination and structure that formed at each site.

Volunteer Landscape

There was no indication that volunteers were in the way of first responders or any officials nor were spontaneous volunteers causing problems for affiliated volunteers or voluntary organizations. In fact, the spontaneous volunteers were filling in the existing or planned volunteer structure at the sites where they worked and, where there was an absence of an existing/ planned volunteer structure, they created their own.

While volunteers were working hard and had plenty to do, none of the volunteers reported being overwhelmed. Based on the researcher's observation there was no apparent shortage of volunteers nor were there too many volunteers at any of the places where volunteers were working, though of course the numbers fluctuated throughout each day and the week. Participants described the fluctuation of the volunteers at each volunteer site throughout the week. One volunteer explained the changes at her volunteer site,

Yesterday we had three other volunteers and the CEO. But one of them flew in on a corporate sponsorship for just the weekend and he left. One of them drove here from Waco and she left last night. She had to be at work this morning. [Volunteer's name],

who's the site manager, who's also a volunteer, is at the airport right now with the CEO getting dropped off to fly back to Dallas and the CEO is picking up a new volunteer that is coming from Virginia. So, you know, sometimes there are 6 or 7 people. It depends on the numbers. We can feed 15,000 meals a day but this hasn't been that kind of disaster so it just depends on the numbers... You know, but we're all used to sucking it up... There was one shift where we had no volunteers but it was just a communication issue. It was solved the very next day, no issue. We have had a few times where we've had an abundance of volunteers where we maybe haven't had enough work for them. But I would say for 80% of the time it's been right on.

Some sites attempted to keep volunteer sign-in sheets but many participants reported not signing in, so the usefulness of the lists in determining how many volunteers were at each site is minimal. And, further, there is no comprehensive volunteer list that would provide any, overall count of the actual numbers of volunteers.

Informants, on the other hand, almost unanimously said that overall there were too many volunteers over the course of response.

I don't really know how many volunteers were there. One of the first ones I remember, she's a district employee. So, really she kicked it off and then more people started trickling in. By the end of the night it got a little out of control. There were a lot of people there to help.

We have enough, we have been overflowed. Everyone came out of the show of love.

They had plenty of volunteers at that time.

Too many. It became that they were in the way more than anything. They meant well, but when you have more volunteers than people that need help it just, they get in the way. Especially when you're not taking initiative and you're just standing in the way. So, that was a problem.

Only one informant noted that they could have used more volunteers at their volunteer site.

Yet, the notion that there were too many volunteers ran counter to both what individual volunteers said and the observations made by the researcher at each site. Depending on who was asked, what site they were working at, and when they were asked, volunteer's described there being too few volunteers. Volunteers had plenty of work to do and while there was certainly no

shortage of volunteers to do those tasks, volunteers were not standing around with nothing to do except the ones awaiting instruction at the Red Cross headquarters. In fact, while being interviewed for this study, they rarely stopped their work, electing instead to continue their tasks while participating. Those who did stop to sit and speak with the interviewer often noted that it was their first break all day. In other words, at every location the researcher visited over the course of the week there seemed to be an overall equilibrium between tasks and volunteers to do those tasks.

Certainly the number and type (e.g., affiliated, local) of volunteers at each site changed dramatically day-to-day and throughout each day. Each volunteer site varied in their ability to maintain enough volunteers to do the work as it arose while also not having more volunteers than were needed. One participant explained the difficulty of even trying to estimate how many volunteers would be needed at any given moment,

Well, that's the thing, you know, you never know when you're going to get really busy. The nights where we were expecting the river to rise and we expected people to be coming in, especially when it became mandatory to evacuate there was definitely an influx of people coming in but I think there were always enough hands there just wasn't enough time to communicate, this is what we're going to do and this is how we're going to do it. It's just hard. It's disaster relief so there's not ever going to be that really organized system but there were plenty of people who said they could do something they just didn't have anyone to tell them what to do. We had a lady come in and she was like, it was kind of busy, 'I'm going to go and you can call me if you need me' and the girl who was working was like, 'well, actually we could use you right now'. She just needed someone to tell her what to do because she didn't know and she kind of felt useless.

The length of time individuals volunteered varied. Some individuals only volunteered one-time for a few hours. Other volunteers helped for multiple hours on multiple days. On the extreme end were individuals who volunteered all day, every day, during the week-long response. There was a pretty even distribution among the volunteers who participated in this study in terms of how long they volunteered though most were more transient in the duration of their involvement.

The majority of participants in this study were local to East Texas. At all sites except for one, the majority of volunteers were local volunteers. Participants confirmed this saying, “for the most part they’ve been Houston locals.” Another said, “They were all local. The only people from out-of-state were the volunteers that the Red Cross actually called in.” And, one informant described the characteristics of his site,

I’d say the majority were mostly local. A handful were from like, like I said there was a lady who came all the way from Bryant, Texas, that’s about an hour and 45 minutes from here. Like I said the media is portraying that [the shelter] needs a lot of help because it’s the largest disaster in this area. So I had people from Conroe – about an hour and a half – I had people from Pasadena and Galveston – so for the first few days it was... I’d say 90% was Aldine and the nearby community from churches and stuff. And then the other 10% were from outside the Houston area.

Regardless of the changing number of volunteers, the consensus among participants was that the basic needs of the affected individuals were in being met at each site.

Over the week the researcher spent in East Texas, it was consistently clear that response-related needs were being met or were in the process of being met.

I hear a lot of people saying that they have to stay here. They thought they were going to be able to leave and go someplace. For me looking at it, so far they’re getting the help that they need. You know, food. It’s a lot. All of them have different needs. It takes time. So far it’s okay.

I think it’s been going well. I mean, I think we’ve been able to help as much as we can, direct people where they need to go to, help people with the food and just trying to help out those affected as much as you can because they’ve got nothing. They’re in a pretty bad state. So, whether it’s just a hello or a bottle of water or waiting on them for a bit during breakfast, whatever helps.

Yea, I think their daily needs are being met. We’re going into the various complexes. We went to so many of them in the immediate area. We were bringing in truck loads and giving them food, dinner. They can always walk up here but for the one’s that couldn’t we went and took it to them. So as far as a success story I think their basic needs are being met.

Well because we’re not out in the field we haven’t gotten to see as much as we usually do for ourselves. But our numbers have dropped drastically. But the first days we were here we were putting out thousands of meals and now we’re putting out hundreds of meals.

And so, like I put out 250 lunches, that's nothing. I would say the need is, people are becoming more self-sufficient now.

So, even as those affected were struggling to get through the situation, volunteers were attempting to meet their basic needs. This was true too of their overall perception of how the response was going throughout East Texas.

I know there's a lot of areas hit. I'm not sure how the other areas are set up and structured as far as a facility like this. I understand this is the largest facility in Houston. I think in general the public has been good about responding. I know all the schools have been actively collecting goods, schools, sports organizations are all pitching in and donating where they can. I don't know if it's, I think what these people mainly need right now is help with housing and getting back on their feet which, donations aren't going to help. I'm not sure how much the average citizen can help with that aspect of it. I think that's more the city's responsibility. I think that's what's mainly needed.

I think kudos to Houston. I think Houston has really stepped up, including the people in the surrounding areas. I think, in my opinion, it's going good.

To me it seems like it's going as well as can be expected. It's a major disaster so it seems like it's going fine.

One thing that I did see that kind of surprised me was that the city brought in the big busses to shuttle people back and forth. They were bringing people from the neighborhoods down to here so that they could get to the church. I was kind of surprised. I hadn't seen that done before. So it's good.

It seems to be going very, very well. From the news reports I've seen on TV, you know, good Samaritans helping folks, people coming from across town to help. We've kind of been known for that. During Katrina, Ike, those types of things. Houston just has a big heart. Sometimes we get tagged poorly by other parts of the country but we have a big heart and like to help people.

In general, the city seemed to respond more quickly as compared to some of previous flood events. One informant said, "Well, the city was quicker to respond and had a sense of how to get it done more quickly."

The volunteer landscape was primarily dominated by spontaneous volunteers with relatively few affiliated volunteers and organizations represented at volunteer sites. Though, it did seem as though the needs of the community were being met, even when those needs were

addressed through emergent structures rather than through established organizations and plans.

These needs were addressed by volunteers who engaged in a number of tasks.

Tasks

Volunteers at each site addressed certain unmet needs. The participants described the tasks they engaged in throughout their time volunteering. Most volunteers tended to be engaged in a variety of different tasks as needed throughout their time volunteering.

Well, all kinds of stuff. We carried stuff in that people donated, put together hygiene bags, and stacked them up, handed them out when they first got here. We got those ready. I liked to play with the kids, they're kind of trapped. So I played with them and colored, stuff like that. We handed out water, handed out snacks, helped get the food ready, help with the food line.

A little bit of everything. Whatever they need me to do. I've been bringing in clothes, unloading cars, helping out in the kitchen, watching the doors making sure people don't bring food out, going outside and helping people out. Whatever they need me to do, I just do it.

I got a trash bag and I've been picking up trash outside. Then I've been standing at the door making sure they have a yellow wrist band when they come in and sign out if they're leaving.

The majority of tasks participants engaged in were relatively simple, self-explanatory tasks that did not require any kind of specialized skills or formal training.

I've been helping with registrations. Sometimes they ask me where to go and I give them the information. Like, that they can go upstairs to get clothing if they need it. I'm actually taking care of this table. So what I do is hand out the toothbrush, toothpaste, baby food, whatever they need from the table. I just put it in this bag and give it to them.

I'm manning the door [the entrance to the dormitory] making sure only people that should be in the dormitory are in there. We're having people sign out because we need to keep track of the beds because we need to make sure we're not giving their beds away if they're just leaving for an hour. That's pretty much it.

We ended up going around along with the city and urging people to evacuate, and offering our assistance. If they needed someone to help move them, we did that, we found storage for them. We just helped them prepare for it.

I've seen a couple people that don't have papers, you have to have papers to apply so I sent them to churches. I don't know the procedures but I sent them there. Other than that if people need clothes we have more than enough.

All I've been doing is monitoring the incoming residents. Only residents with a yellow band are allowed in there. So my job is to make sure nobody gets in there who doesn't have a yellow band on. It doesn't sound very important but it protects their property and their privacy.

The majority of tasks that volunteers engaged in during response did not require any kind of special skills or training. Which was good because most of the volunteers were untrained and inexperienced. None of the volunteer sites had any kind of intensive or even formal training.

No, no disaster training. You don't have time to have training. You just have to jump right in.

The training was on the website, just a video. We filled out kind of a profile and then they ran a background check on everybody that volunteers here.

It's a learn as you go thing. Primarily it's been successful.

The volunteers were able to learn what needed to be done as they went and were able to move from one task to another as the needs at the volunteer site changed over the duration of their engagement.

The tasks volunteers engaged in varied across volunteer sites but were all related to addressing hazard- and response-generated needs (i.e., needs as a result of the impacts and needs that came about because of the response to the flooding). Volunteers were flexible and easily switched from task to task as other volunteers at their volunteer site came and went. The three sites that were coordinated by established groups provided direction for volunteers on what needed to be done but even then there was a considerable amount of flexibility and decision-making authority given to the volunteers in non-leadership positions. This flexibility allowed volunteers to make decisions in the moment and to quickly improvise to address the unmet needs at the volunteer site.

Conclusion

This chapter described volunteer engagement during the response to flooding in East Texas in April 2016. Volunteers were working at volunteer sites including the offices of established voluntary organizations and spontaneous sites that developed across the impacted community. Individuals working at these sites were primarily local non-affiliated volunteers. They engaged in a variety of tasks at each site. Where structures needed to be developed at volunteer sites, local volunteers did so. Volunteers addressed needs as they came up throughout the affected areas. The following Chapter will address the factors that help to explain the volunteer engagement observed by the researcher during the response to the flooding.

CHAPTER FIVE: RESPONSE FACTORS

A primary objective of this study is to identify factors that explained volunteer engagement in response in East Texas. This Chapter addresses the factors that influence volunteer engagement in response. The specific factors discussed in this Chapter can only be said to have influenced volunteer engagement in the case of East Texas. It is not expected that these are the only factors that influence volunteer engagement, but they are an initial set of factors that could be tested during future hazard events.

The researcher interviewed 46 response volunteers in East Texas following the April 2016 flood event. The evidence provided in this Chapter will primarily be quotations from those interviews. The researcher's findings have also been influenced by observations from the field during the response, key documents that have been collected during the response and after, and interviews with informants. Where appropriate the researcher integrates support from these sources. The first section discusses the pre-event factors that influenced volunteer engagement including characteristics related to the volunteer and their integration. The second section addresses factors related to volunteer mobilization including impacts and needs, motivations, the goodness-of-fit between individuals and volunteer site, media coverage, and logistics. The third section addresses factors during the hazard event that influence the extent of volunteer involvement.

Pre-Disaster Factors Influencing Engagement

As the researcher interviewed volunteers, it became clear pre-disaster factors explained much of how they became engaged. In the case of East Texas, a number of pre-disaster factors influenced the extent to which an individual volunteered during response. These pre-disaster factors include characteristics of the individual and the extent to which the individual is

integrated into social networks. Individuals who volunteered in response tended to be those who were altruistic, had skills that were useful in response, were knowledgeable about the community and disasters, and were either members of groups or had social networks that became involved in the disaster. Each of these factors influenced how, when, where, and why the individual volunteer became engaged during the flood.

Pre-disaster individual characteristics and integration influence volunteer engagement in myriad ways. Examples of these connections are offered using quotations from participants that demonstrate the relationship between each pre-disaster factor and one or more of the features per-disaster. In other words, evidence provided will demonstrate how individual characteristics and integration influence volunteers at various points of their response engagement.

Pre-Disaster: Characteristics of the Individual

Through interviews with response volunteers, the researcher identified three primary characteristics of volunteers that influenced their engagement including being altruistic, having latent skills that proved to be useful while volunteering and, having latent knowledge. How an individual came to have these characteristics varied. Regardless of how they were acquired, these characteristics were part of who the volunteers were long before the flooding in East Texas ever occurred.

Individual Characteristic: Altruism

Participants noted that they had a general belief that helping others is important. This sentiment, though worded differently by participants, falls into what the academic literature has identified as being altruistic in nature (Barton, 1969). In other words, participants tended to be individuals who were naturally inclined towards helping others. Participants explained their orientation towards helping others,

If you have the mission in you like I do, it's just what you do. It's normal for me to do it.

It's just the way my nature is. I just want to help out people that are less fortunate than me.

My thing is that giving back to the people... But this is what we do. We know that it's going to take everybody helping with everything. It's just what we do. It's what I believe.

I realized my passion is service. So, that's something. This is not the first time in my twenty-five plus years with the church.

They stole my heart. Because the first time you're there and some mama comes up with, it's just so moving. Unless you've been in a disaster you just don't know how big it is... I have a love for feeding people... You know, I don't know, you're kind of born with it. If you have a servant's heart and it goes with food then it's a no brainer... I really was born with a service heart.

Others demonstrated their altruism while discussing their previous general volunteer experience,

Listen, it's kind of been my life. I've been to Africa on mission trips. I do mission at my church, I do a food bank. I still do the Food Bank. I tell them, whatever I can do for anybody.

We do lots of different projects with Wells Fargo from gardening to cooking for nonprofits to planting trees. Kind of all over the board. We built an oyster reef last year.

I do a lot of work at my church but this is my first time doing a disaster thing. I've always wanted to help out so I finally said, I got to do something.

It's not disasters specifically. Every month my friends and I will give back to the community. We'll find an old lady in the community who needs help painting so we'll go buy some paint and paint their house for them. It may not be the best work but we try. We try to do something. My group of friends, most of them I've known since elementary school. Some of them are married now but we keep close. We try to give back as things come up at church or whatever. I love helping the community.

In my spare time I work down at one of the churches. We feed the homeless. So, this is not new. I have a close friend who is a former teacher and we volunteer together. She got me into it.

The volunteers in this study were individuals who were oriented towards helping others. So, when an opportunity arose, in this case the flood event, it was within their normal behavior to help.

Individual Characteristic: Latent Skills

As discussed in Chapter Four, most volunteers were engaging in tasks such as picking up trash around the shelter, cleaning eating areas, handing out donations, or providing directions – tasks that though useful, do not require training or special skills. Some volunteers, however, did find various skills useful in addressing unmet needs while volunteering. These skills included things like being an approachable person, being good at asking questions, and/ or knowing how to organize groups of people. So, while many volunteers ended up engaging in tasks during response that did not require an advanced skill set, individuals did point to certain skills or previous experiences that influenced their ability to address unmet needs. Many of the skills participants described had been acquired for reasons unrelated to disaster volunteerism but still proved to be useful during their experience.

I found out this [organization] does children's disaster service and having taught for 39 years, children are part of my background, and all the Sunday School stuff... So we took the classes and we got a deployment and we're excited about working with the children.

It's just kind of my thing to organize. I'm good at it. I guess it showed.

Just...my educational experience. Through counseling we kind of learn how to respond to crises and trauma and that sort of thing. So, I used that as well as the practical experience I have running mission camps.

Sometimes you get people around the table who don't know how to come and ask me. So I have to go up and ask them, 'do you need anything from this table? Is there anything I can help you with?' And more than anything, the Hispanic people because they don't know that I speak Spanish. So, they are like afraid to ask so I have to actually reach out to them and ask them, 'do you need something?' in Spanish.

I guess my military background and the background with the chemical company, doing logistics for both. Plus, I was a training specialist in the Navy. Sort of a jack of all trades so I just got involved with this because it just seemed natural to be involved with disaster and emergency management work.

Other participants applied skills they learned while volunteering during previous disasters to their current experience. One volunteer explained, "with Ike we were handing out survival kits

too.” Another explained, “through me being a psychologist, I’ve been through all the different trainings but they don’t require you to be trained to work at the church. They just require you to be here and use whatever your strengths are to help.” Finally, another elaborated,

I know how to do this. I’ve been through this when Ike came and Katrina came. I was actually working for FEMA. I was actually driving the trucks. We was going out, you know how you have to go clean. People put stuff out on the side of the road. We went through and we had to bring all our own equipment. We went and did it. We did the whole of Katy. You know how long that takes? Sometimes 15 hour days from 5am to sometimes 10pm at night because you know, you’re working for them and you’ve got to get all of this debris up so people can come in and try to rebuild... That’s what working for FEMA was kind of like except they were paying you. To me it’s pretty much the same because you still have to follow the same rules. Somebody tells you what needs to be done and you do that every day. This to me, it’s the same.

Volunteers who were affiliated with a disaster organization each had some type of formal training. In this study, all affiliated volunteers were affiliated with their organization well before the April flooding. As a result, the training that the affiliated volunteers completed was done so before they deployed to Texas. This training was all a part of well-established national programs. One volunteer explained, “when I first started doing this a while ago I went to training. When you first start you go to classes. They teach you how to work everything and what to do.” Based on the observations of the researcher the usefulness of that training in assisting the volunteers address unmet needs varied. In addition to having skills and training, volunteers also had disaster and/ or local knowledge that influenced their engagement.

Individual Characteristic: Latent Knowledge

Participants used their knowledge of East Texas and disasters more generally when making decisions about how, when, and in what ways to engage. Knowledge about the local community, including an understanding of the local geography of flooded areas, was useful to many volunteers. Some participants had knowledge about previous disasters in East Texas. This

knowledge came from living in the community and having intimate knowledge of which parts of the community had previously flooded in similar events, the extent to which help would be needed, and where that help would be needed. This influenced when and where they engaged. Understandably, there was an absence of this local knowledge among non-local volunteers.

Local knowledge is a factor that influenced engagement particularly when participants were looking for a volunteer opportunity. Individuals that were familiar with the community were able to tell from local news reports which areas had flooded and where assistance was likely needed/ being provided. Local knowledge also seemed to influence the logistics of navigating through the impacted community to a site as they had a greater familiarity with the area.

Well I grew up in the Aldine District so I found out that Greenspoint got hit really bad because I live maybe a couple blocks down, or exits down... It's close to home. That's how I ended up here.

Well, I saw it on the news that you know they were moving people to these certain areas. I thought it wasn't something I'd like to do but something that I needed to do.

So the news came on and they were showing where everyone needed help. So, me and my wife, we decided to go help.

While some volunteers worked to gain this knowledge through pre-event training, others accumulated this knowledge through experience or for non-disaster related reasons. A significant number of response volunteers discussed how they had either volunteered during a disaster or were themselves a disaster survivor. They said their previous disaster experience not only made them more empathetic towards the current survivors and therefore motivated to help them, but also led them to believe that volunteer assistance would be needed and what that volunteer assistance would entail. East Texas' history of disasters (e.g., the evacuees to Houston from New

Orleans following Hurricane Katrina, Hurricane Rita, Hurricane Ike, and flooding in 2015) was frequently referenced by participants.

Some participants had general knowledge about disasters. At times this knowledge came from having experienced a disaster before.

During Hurricane Dolly back in '06 in Texas I got help from the Red Cross.

I got flooded on Memorial Day when we had the big rain. So, this is my church. **Did you volunteer before?** During Ike with the [local food bank].

Well, Katrina came to New Orleans in 2005 and they showed us love. **Has volunteering been what you expected it to be like?** Well, I know what they need so, yes.

I used to work in the clearinghouse of the banking and financial industry. One of the things is that there is a plan for the protection of national assets that you can find publicly. One of the things we had to do was have back up plans. You know, what would you do if your clearinghouse went down. This was all in the wake of 9/11... So, that's sort of how I became involved in disaster recovery. I said, my gosh! Everything just comes to a halt so I started learning about it.

Having learned from their experience with other disasters these volunteers seemed to more easily able to jump into volunteering. In other words, they had a familiarity with disaster response that facilitated their engagement. Other participants had experience volunteering during previous disasters.

I've actually volunteered with the Red Cross before at other locations. Like I did Hurricane Ike, Hurricane Rita or Tropical Storm Alison. Katrina, I was there in the Astrodome when, I don't know if you're aware of the Astrodome chaos. People from New Orleans coming over. I went to New Orleans with the Red Cross to help rebuild houses, just as a volunteer. So I knew the spectrum of volunteering.

When Katrina hit I did, you know, donations and dropped them off at IMPACT East Texas but this is the first time I've hands on worked in a major shelter or whatever. It's been quite the experience.

I did in Louisiana for Katrina. I wasn't registered, they were too excited for volunteers then. I was living in Louisiana when Katrina hit. We wasn't too affected like New Orleans was so I worked at shelters. I'd go to work, get off work, and go straight to the shelters. **Besides Katrina did you have any disaster volunteer experience?** Rita and

Ike. I was here for Ike and I was in Louisiana for Rita. <laughs> My god! I was in Louisiana for Katrina and Rita and I moved to Houston and I was here when Ike hit.

I have done it before but through my church. With [this organization] this is my first time helping. Like I said, I never thought I could do this before with [this organization]. Through my church we do food distribution and others whenever they come along.

My church group went to Mississippi and did disaster relief where we cleaned out houses, cut up trees and things like that. Done three of those.

Regardless of why volunteers had experience with disasters, that experience helped to facilitate their engagement because they seemed to be more comfortable with the situation. They knew that volunteers would be needed, had an idea of the type of volunteer work that may be needed, and seemed to be more flexible as they understood the situation would be quickly evolving throughout the week. In addition to the individual characteristics the pre-disaster integration of the volunteer helps to explain their volunteer engagement.

Pre-Disaster: Integration

Participants frequently mentioned being a part of groups or organizations that themselves became involved in the flood response. Integration, here, means that the participant was a part of an organization or social-network pre-disaster. Membership in an organization included being an affiliated volunteer with a disaster-specific voluntary organization or with some other group (e.g., a church, a voluntary organization with a non-disaster specific mission). When the group the individual was a member of became involved in the flooding, then that individual was likely asked to volunteer. Additionally, their engagement was influenced by that organization in a number of ways such as when they deployed, where they deployed to, and the tasks with which they engaged. For example, volunteers who were affiliated with a disaster-specific organization pre-disaster were very clear that they would not consider deploying without being asked to by the leadership in their organization and that the length of their deployment would be dictated by

their organization. Volunteers spoke about becoming involved in the disaster because the organization they are associated with became involved.

Well, I'm in this [disaster organization] so that's what you do, you go out on disasters. It's not just the flood, it's whatever disasters happen.

I'm with [name of organization] and we have a disaster relief when we have floods and hurricanes in the south. We go out to the areas affected and we cover Wharton, Matagorda, and Colorado county. So this is one of our actual counties that we do legal services in already and have somebody come out every month to meet with clients and people. So, this is one of our affected areas so we had to come out and see if there's anything we can do to help some of these people get whatever it is they need to get during this time.

Well I'm a member of [this church] and so as you can see our church is one of the main headquarters here and we're stationed here. All the surrounding areas flooded but not this church. So that's how I ended up volunteering.

This is part of our church and so it was just a call of duty. When the news broke it was just, okay everybody, all who can volunteer come on.

When an individual is affiliated with a specific organization, the duration of their involvement is influenced by that organization. Several of the disaster nonprofits included in this study only allow volunteers to work a certain amount of time before taking a required break.

Is that how long you're willing to stay? That's usually how long they let you. For nursing services, you can do it for 10 days but I always do it for 2 weeks. It's not, I'm retired so it's not like I have to punch a clock. I make the same amount of money whether I'm here or there.

The [organization] is usually a two-week deployment.

We were asked to be here for 10 days.

Spontaneous volunteers that remain non-affiliated throughout their engagement were not constrained by these same limitations. Instead, their duration of involvement becomes a personal choice or a function of the context of the location they are working at (e.g., the shelter closes so they stop volunteering). In other words, the length of time they volunteer for is tied to the needs of the site where they are volunteering and their freedom to stay.

I mean, if they need me. Like I told the man who runs the kitchen, if you need me, let me know. I told him that because if they relocate somewhere just let me know because I know it's hard to get volunteers. I told him whatever I can do to help, I'm here.

Until it's over because I love giving back. I can't give any money because I've got to pay my own bills but I just want to give my time. Like I said, if it was me, I'd want people and different resources to help me.

I'm trying to be here 4 hours a day because that gives me time to go home and shower and eat and finish the rest of my life. But, I just kind of show up and if they need help I'll stay and if not I'll go. I think I asked and they don't know how long this is going to last so I don't know.

Well until all of our supplies are gone and once we make sure people are stable. We have everyone's phone numbers so we can call and check in with them later. Some are in hotels; other people have vouchers. We're going to volunteer until everybody is safe and in a good place.

Participants in this study who were not associated with an organization that became involved in the flood event were not constrained by the limitations set forth by an organization. The duration of their involvement was a function of personal choice rather than their pre-disaster affiliation.

Per-Disaster: Volunteer Mobilization

In addition to pre-disaster factors a number of per-disaster factors influenced volunteer engagement. These factors included impacts and needs, volunteer motivations, the ability of volunteers to find or create a volunteer opportunity, and logistical issues. The remaining sections in this Chapter review the per-disaster factors that the researcher found to influence volunteer engagement during response starting with impacts and needs.

Volunteer Mobilization: Impacts and Needs

Hazard events result in impacts that vary in scope and severity. As with every hazard event, East Texas experienced a variety of direct and indirect impacts. Following impact, the community had a variety of needs. It was not the impacts themselves that influenced volunteer

engagement but rather the resulting needs. Impacts from the flooding caused a variety of needs in the community.

In the case of East Texas, this included needs such as evacuation, sheltering, medical assistance, and food and water distribution. Volunteers learned of the various needs in the community through their social-network, group membership, or the media. Response can be a confusing time period where the actual needs are not always actually known or not communicated correctly (Auf der Heide, 1989). In this case, some participants noted that they did not necessarily know of exact needs but rather assumed there would be needs based on what they were hearing about the flooding in the area or their experience. So, perception of needs would appear to be as significant a factor as knowledge of the actual needs in the community.

How volunteers perceived the impacts in the community had a significant influence on their engagement. Individuals who spontaneously volunteered perceived there to be widespread needs throughout the community. The majority of volunteers became aware of the flood event through the media.

Well the reason I volunteered was because on Monday I heard on TV about the disaster that was going on

I saw it on the news, I seen this particular shelter on the news. I decided, my heart went out to them and I decided to come out here and see what I could do. I've been here every day since.

Well, I was watching the news and I saw that people were trying to get to dry land and it really just got to my heart.

I turned on the news.

No, Monday. Actually when they were forecasting the weather. The kids didn't have school. They were broadcasting something on the news. Yeah the media and everything, people started showing up.

Several informants confirmed that the volunteers they spoke to had become aware of the need from watching the news. One informant said, “I wasn’t watching the news but apparently the news, they were showing some of the kids in our district being picked up. That touched people, that’s why we got a lot of district employees showing up because like, those were our kids.”

Some participants in this study experienced needs themselves which influenced their engagement though none of the participants in this study suffered extensive direct impacts. A few participants noted their car had flooded; they lost power; they were unable to leave their neighborhood for a few days because they were surrounded by flooded streets; or did not go to work/ school because they were canceled. Participants spoke about volunteering after they had dealt with any of their personal urgent needs (e.g., waited to volunteer until after they had fixed their car). To reiterate, it was not the impacts that influenced volunteer engagement but rather real or perceived personal and community level needs that impacted their engagement.

Personally experiencing unmet needs was only relevant to local volunteers. Volunteers who came from out-of-state were not directly impacted by the disaster. The personal decision to volunteer by affiliated volunteers did not seem related to community needs real or perceived. Instead, they deployed because they were asked by the organization with which they were affiliated. In other words, they assumed there were significant needs because their organization decided that there were. Yet, it was not only the perception or reality of unmet needs that led participants to volunteer, they also needed to be motivated.

Volunteer Mobilization: Motivations

The participants included in this study were all highly motivated to volunteer. Not only did an individual’s initial motivation influence their engagement but so too did their continued motivation while volunteering. One primary motivator that participants discussed was feeling

sympathy for survivors. One specific video shared by the local media that depicted Greenspoint residents swimming out of their homes with small children floating on mattresses and in refrigerators was brought up by several volunteers. In the words of one participant, “Well I seen it on the news. It just touched my heart. Especially when I saw babies on air mattresses. That just broke my heart because I have small kids.” The images were compelling and served as evidence for many volunteers that help was needed. Participants spoke about their empathizing and sympathizing with the survivors as the primary reason they were motivated to volunteer. Volunteers explained how after they saw the news coverage they were motivated to help.

I felt like I had to do something. I couldn't just sit at home and not do anything.

Of course my heart went out to them. Because, you know when you put yourself in other people's shoes, if that were me I would want people to help me, to be here.

I guess I just know exactly how it feels like to lose everything so I understand what people are going through. If you've never gone through it, it's nice to hear from somebody that has.

Because my heart went out to those people. Some people lost everything, some just lost something. You know, they were caught in the flood and my heart just went out to them. I thought, that could have been me. So I want to give back what God has given to me.

It's like a must. If I'm displaced, I know how I feel. I can't imagine the older people; I just want to do what I can for them. I just want to make them comfortable.

The participants saw there was a need and empathized with survivors which motivated them to help. Once individuals were motivated to volunteer they needed to find someplace to volunteer.

Volunteer Mobilization: Goodness-of-Fit with Volunteer Site

Once participants became aware of the flooding and decided they wanted to help, they still needed to connect with a volunteer opportunity (i.e., volunteer site). Individuals who were already members of voluntary organizations waited to be called and asked to volunteer. This

included participants who planned to volunteer during disasters such as those affiliated with disaster voluntary organizations. Participants explained,

They called me and said, “will you come?”. I said yes. So here I am... Well my Captain, the woman right down there, called me and asked me if I was available and I said “yeah”. Then somebody else called me and asked if I was available and I said “yes”.

I got a call and I’m not sure they really meant me because they thought I was from Arkansas and I said, “no, I’m from California”. Awhile later I got another call and they thought I was from Pennsylvania, and I said, “no, I’m from California”. So anyway, she said that was fine and that we could come and all that.

We just get deployed. They call us and we come.

We drove down here. We were on alert. We have a pretty sophisticated system that knows where all of our canteens are located. So they put us on alert Monday and then called us Tuesday morning to say, ‘hey we need you to go to East Texas’.

Others had not planned on volunteering during a disaster but, when an organization they were a member of became involved they were asked to help or offered their assistance to the organization.

A number of individuals who had not considered volunteering or were not actively seeking volunteer opportunities ended up volunteering because they were asked to help by someone in their social network.

I heard about it through my job. They were pretty much like they need about 10 volunteers so I signed up. We just registered if we wanted to go out... and my boss was really understanding, she was like, “okay, go help these people”.

When I was coming to church they asked me. So, just because they asked.

So our director said, we need somebody to go. We have a shelter set up, we have this many people in the shelter. They’re all affected. We need to see what we can do for them.

In all cases it was their pre-disaster integration that led them to being asked to volunteer.

Even when an individual was not a member of a group that became involved in the disaster, participants noted that their existing social networks influenced their engagement during

the flooding. Personal pre-existing networks were how some participants both became aware of needs in the community and found volunteer opportunities. Participants in this study discussed finding volunteer sites through their personal social media accounts, word of mouth, and through list serves they were apart of pre-disaster. Some volunteers were specifically asked by individuals in their social network to volunteer.

My brother called me Monday or something like that and was like, “hey we want to go volunteer?” ... He just said go to [the shelter].

Most of the people here are my friends that work here at the district. Some of the lunch ladies and custodians and upper management... They called me and said we might need some extra hands over here if you don't mind coming to help out. I said I was more than welcome to because I was headed over anyways because I heard on the news that they were sending a few hundred people over here. So I was like I need to go help out. This is my community; this is my area.

I got here right when it was put up [the shelter]. I was getting texts from friends saying to come help.

I saw on Facebook that there was a shelter here so I just went up to the front door and asked if they needed any help.

How have you ended up here? I was on my way to church and they grabbed me. **So you just heard about it when you got here?** I heard it was going on because I go to church here.

The individuals had all heard about the flooding before they were asked but they had not been motivated on their own. It took someone explicitly asking them to help to get them engaged.

Participants who were not asked to volunteer did not immediately find a volunteer opportunity. These participants, who felt there was a need and were motivated to help, searched for volunteer opportunities. Individuals took a number of different approaches when trying to find volunteer opportunities. Some volunteers searched online,

I saw on Facebook. Actually, one of my friends died in the flood. So I saw everyone talking about it on Facebook and to go check with [a disaster organization].

I went on the [organization's] website. I looked at it and saw there was a need in the shelters. I actually tried to volunteer at a different one but they closed it down, which is a good thing since it means they don't need it. So, I came here.

Well, I registered through the [organization's] website and they asked me, if I wanted to work in the shelter and I said sure. They said, when can you start? And I said, right now. So they gave me the address, I threw it in my GPS, and got on the Freeway.

Other participants spoke about just driving around the impacted community until they found or heard of a volunteer opportunity.

I was trying to get to the Greenspoint area...but I couldn't get there because of the water. So, I just came to the closest place I could get to and that was here.

We went to a couple different places. We were donating clothes and stuff so we went to Harvest Time and the World Church and then that's when we came over here and they needed help. On Monday they needed help! I said to my wife, let's go every day. Go drop the kids off at school and we just go there and help.

I knew about this place because my son went to Eisenhower. Then I saw it on the news and I said, I got to get over there and help those people. So I drove over.

Individuals who were not already members of voluntary organizations sought a place to volunteer through traditional and social media, friends, family, or by driving to the area of impact. Some found a place to volunteer once they arrived at a volunteer site while others found a place to volunteer before arriving. These participants were using their pre-disaster local knowledge to make judgements about where flooding had occurred, where shelters were, and where the most help might be needed.

Participants who were asked to volunteer simultaneously found their volunteer opportunity. However, the participants who spent time searching for a volunteer opportunity were able to find one on their own. Of course, this could partly be a result of the methodology for this study as no one was interviewed who did not find an opportunity. Regardless, all participants did indeed find a volunteer opportunity whether they were simply asked to volunteer or if they had to spend time searching for one.

Regardless of how volunteers came to be at the volunteer site where they worked the objective was to find a goodness-of-fit with a volunteer site. This meant that they found someplace to work, that there were unmet needs there that they could address, and the timing of working at the site coincided with their availability. A final factor helped to explain volunteer mobilization, the media.

Volunteer Mobilization: Media

In the case of East Texas, only one community-wide factor was identified during analysis that influenced volunteer engagement – media coverage of the response. Actions taken by the local press rather significantly influenced volunteer engagement. The media most often was the way participants learned about the flooding, the extent of impacts, and that there was a need for help in the community. Volunteers reported that they saw disturbing images of people swimming through flood waters on the local news. These images served as the initial indication that there may be a need for help. Participants were also alerted to possible places to volunteer by the press.

Television, radio, and online outlets published messaging that directed volunteers to contact the Red Cross if they were interested in volunteering. Additionally, several media outlets posted the locations of the open shelters. This press coverage was observed first hand by the researcher while in East Texas and was also confirmed by participants. When the researcher reviewed these different media products in more detail after the response, it seemed that there had been coordinated messaging. For example, most news outlets reported the same two organizations to contact for potential volunteer opportunities.

The Office of Emergency Management in Houston, which is where these particular media outlets are located, declined to participate in this study so the role their office may have

played in this messaging is unclear. The majority of the media outlets were directing individuals who wanted to help to contact the Red Cross. The Red Cross declined to answer questions related to press releases despite numerous attempts by the researcher to find this information. A few participants in this study reported that they did contact that particular organization as a result of hearing these messages. In doing so, they reported mixed experiences. Some were directed by the organization via phone to go to a certain shelter while others were unable to reach the organization. When this occurred, the participants, self-deployed to the shelters anyway. They reported finding where the shelters were through televised news coverage or by seeing the shelter locations advertised online.

To a lesser extent, local media suggested that those interested in helping should contact a local food bank to help. The researcher spoke with an employee of the food bank and was told they had not put out a press release. Rather, local media outlets had contacted them to see if they were in need of volunteers, contacts they welcomed. However, here the researcher found conflicting information. In searching online, the researcher found a press release put out by the food bank requesting volunteers during the response. Again, this study cannot conclude the extent to which press coverage was coordinated by emergency management officials or organizations in the case of East Texas. Regardless of how the media coverage came about advertising volunteer opportunities, the implication is that many participants became aware of volunteer sites through this coverage.

It would of course be useful to have a clear understanding of which agencies/ organizations contacted which media outlets, when, and for what purpose. However, given the lack of information and conflicting information obtained throughout the course of the data collection process such clarity is not possible at this time. It is clear however, from both the

researchers first hand observations, media archives, and the consensus among participants, that the local media was broadcasting that there were volunteer opportunities through the Red Cross, and secondarily at the Houston Food Bank. Further, it is clear that volunteers sought out volunteer opportunities as a direct result of these advertisements. Regardless of the lack of clarity on this factor, the media played an important role in volunteer engagement during response and its role and influence should be included in future research.

Volunteer Mobilization: Logistics

A main factor of finding a goodness-of-fit with a volunteer sit was figuring out logistics including the availability of the individual to volunteer, their ability to get to the volunteer site, and finding supporting accommodations in the area when needed. These logistical factors were facilitated or inhibited for volunteers in East Texas depending on various elements of the situational context. Obviously the participants in this study all had the time to volunteer, the ability to get to the volunteer site, and had accommodations near the site. It seems implicit that if an individual did not have the time to volunteer, did not have the ability to get to the volunteer site, or did not have accommodations it would be detrimental to their volunteer engagement.

Logistics: Availability

Volunteers needed to have the free time to volunteer. What “free time” meant was relatively unique to each volunteer. For some, the flooding actually helped to facilitate their involvement. Many participants had school or work canceled because of the flooding and were not personally impacted themselves so they found themselves with unexpected availability that they could dedicate to volunteering. Even volunteers who had young children with canceled school said they were able to find childcare from family/ friends allowing them to be able to come volunteer. Others were retired, unemployed, or were self-employed with flexible hours.

Time of course is a big one. Being retired is absolutely helpful in disaster work because if you get called on Tuesday you're already there on Thursday.

I'm from Clear Lake which is south of here and we didn't have any problems down there. It's kind of unfair that other people had a lot of problems and we didn't... I woke up and my boss told me not to come into work on Monday... I have Friday's off so I just figured I could do something good with the time.

I had the time... I got laid off about a month ago. I'm not planning on even really looking until the end of summer so I'm enjoying my time off with the kids in the afternoon so this is the perfect opportunity.

I live right across the street and I knew my house would be okay. I go to school here at the college. So I rent right around here. I knew I was on high ground because they told me... So, when my classes got canceled because of the rain I thought, well, I'm not doing anything so I should come and help. I just never left. I kept coming back.

My job, I work for a school district, they didn't have any school all last week. I'm going back tomorrow and so, that was what motivated me.

An individual's availability also influenced how long they would be able to volunteer. When the interviewer asked one participant why they had not volunteered earlier in the week they said, "No, because I had work". Other participants noted that even though help was still needed they would need to stop volunteering soon because of work engagements.

We're ending our deployment here tomorrow night which ideally would have been best for me to stay but I have a catering job this weekend so I'm flying out at 9:30 tonight to get home to get my catering job ready. So, you just give what you can give. You know? Sometimes you can only stay 2-3 days and sometimes, if no one is available they'll take it but they're very conscious of the cost factor so they really try to bring, if they're going to fly you, make it a week to make it worth the ticket.

I was outside unloading things until about 10:30 that night... This might be my last day. I don't know. I've been here since Monday working 8:00am to 8:00pm every day. So I have to go to work Monday, unless something happens where I don't have to go to work. I'll probably come Sunday, Saturday I have something to do but I'd come Sunday, unless something changes with my job. We've been coming every day. I don't know what's going to happen when it's time to go back to work.

Well, I'm going back to work tomorrow so today is going to have to be my last.

Informants also made observations about the correlation between their volunteer numbers and the reopening of schools and businesses throughout the city.

On Friday, when the kids went back to school all the Aldine staff of course had to go back to work. That was when it was kind of hell because the kitchen. I had 20-30 people helping me and then I had only four people helping me.

See I don't have enough volunteers right now. The schools are back in, people are going back to work, kids going back to school, parents going back to work. The police officers are distributing things to them, so you know it's winding down.

Last week people couldn't get out because of the water so there weren't that many people here. Towards the end of the week – Friday and Saturday there were a lot of folks. People were able to get out here, a lot of the schools and work were closed so school kids came down. There were more towards the end of the week but at the start of the week it was very thin. Seems like there are a lot of new people here volunteering...Some companies send their employees down here to help.

The researcher specifically asked volunteers about the need to rearrange their schedules, particularly non-local volunteers. While some arrangements were needed, all agreed that it was a minimal hassle. Volunteers who regularly deploy to disasters out-of-state explained that it was not a big deal because they were prepared to drop everything and had experience doing so.

I can. I'm old. When you're old you do what you want to do when you want to do it. No children, they're all grown.

Yeah, school. I took off just 2 days. I only go to school Tuesdays and Thursdays cause that's what my schedule is like. You know it's still mid-semesterish. I can miss two days. It's not going to be a problem. I mean, it's not, attendance isn't, you know how college works. So I just took off two days. I already caught up.

I was coming to church anyway so I just stayed a little bit longer.

Well I had to leave my wife behind and the two dogs and a bunch of stuff I was supposed to do this week. I got the call... if you're going to do this you basically have arrangements made for what you're going to need to do to be able to get out in a hurry. Otherwise it'll take you too long to get out. In my case, spending so many years with the military and the company, I kept a go-bag packed. The go-bag is, you just pick it up, throw it in your car and go. In this case [another volunteer] and I were ready to leave before our bosses.

For obvious reasons, the availability of an individual to volunteer is a critical factor in determining the length and timing of their engagement. In the case of East Texas, there were characteristics of the event that helped to facilitate the availability of local volunteers. The fact that schools were closed and businesses were shut down because of the flooding helped to facilitate the availability of local volunteers. There was a clear relationship between city wide closures and the number of local volunteers that were at volunteer sites. On the other hand, road closures negatively affected when and where volunteers could engage.

Logistics: Mobility

Participants discussed the logistics of arriving to the volunteer site. For local volunteers this involved being able to commute from their homes to the site. In the case of East Texas, many volunteers noted that they had to wait for transportation routes to be clear before they were able to leave their neighborhoods. One volunteer said, “we were at home the first night it started raining. It flooded that day so we couldn’t get out from my house.” Personal unmet need, such as having a flooded car, inhibited participants from volunteering at certain sites at certain times. One volunteer explained, “My grandson’s car got flooded so we had to deal with that first.” In a few cases, flooded roads dictated where they were able to even look for volunteer opportunities. For example, the volunteer coordinator at the local food bank noted that the roads needed to access the Food Bank were impassible for the first 48 hours of the flood event. The flooded streets prevented anyone from being able to volunteer at that site.

Like with an individual’s availability, elements of the situational context influenced an individual’s ability to get to a volunteer site. Some volunteers were able to overcome barriers like flooded roads by finding alternate volunteer sites while others waited for the water to clear.

Logistics: Accommodations

The issue of accommodations in Texas while voting was divided along the lines of local and non-local volunteers. Every non-local volunteer included in this study was a member of a national disaster organization. In each case, their travel and accommodations were coordinated for them through the voluntary organization. None reported problems with either travel or accommodations. Specific to this particular flood event, Houston had the capacity to host out-of-state organizations and volunteers. The Houston airports were unaffected by the flooding so volunteers from out-of-state were easily able to fly into the city. Additionally, there were plenty of available rental cars/ hotels which the national voluntary organizations were able to use. Accommodations were a non-issue for local volunteers in this case as they all lived close enough to their homes to return each night.

Though accommodations appeared to be easily arranged in this case it seems that it was a function of which parts of the community were unaffected by the flooding (i.e., hotels/ airport). In other words, the infrastructure out-of-state volunteers needed happened to be unaffected and because of Houston's size, finding such accommodations was a non-issue. However, it is easy to see how an impacted airport and insufficient hotels could be a significant barrier to volunteer engagement in other events.

Model of Volunteer Engagement in Response

This Chapter has reviewed the factors that were found to influence volunteer engagement during response in the case of flooding in East Texas. These factors were found to influence one another to various degrees throughout volunteer engagement. Factors at a community-wide level influence individual voluntary organizations' and individual volunteers, the engagement of individual voluntary organizations influences the engagement of individual volunteers and

community-wide volunteer engagement, and the involvement of individual volunteers influences the engagement of individual voluntary organizations and community-wide volunteer engagement.

Throughout analysis, it was useful to portray the factors relevant to volunteer engagement during response as a process model and it evolved as her analysis deepened. Figure 1 depicts the response model.

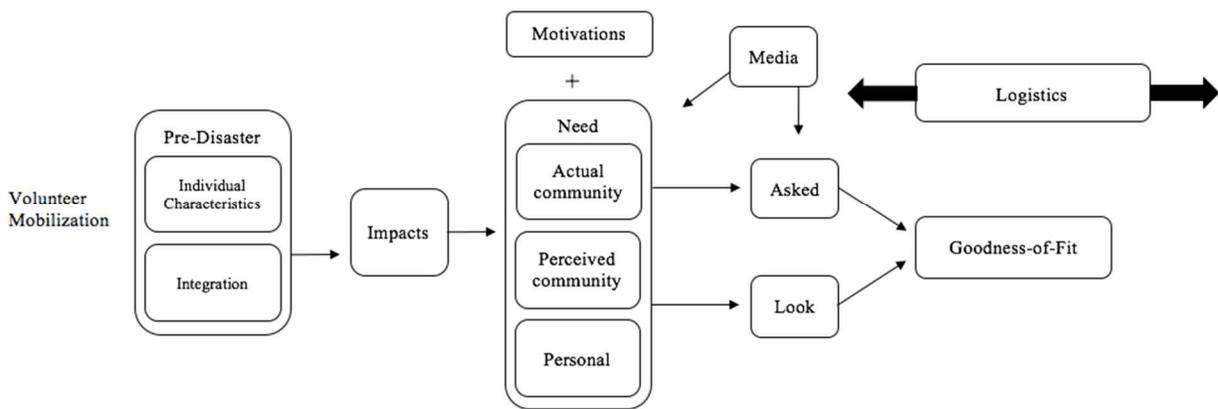


Figure 2: The process of response volunteer engagement: Individuals and overall.

The model suggests that there are factors before a disaster occurs that will influence the extent of volunteer engagement and that there is a process individual volunteers cycle through, that is influenced by a number of factors, that ultimately explains the extent of each of their involvement. The purpose of this model is to visualize the factors that were found to influence volunteer engagement. A similar model will be presented in Chapter Nine that visualizes the factors that were found to influence volunteer engagement in recovery. The two models will be compared in Chapter Eleven.

Conclusion

In the case of East Texas, factors at an individual level significantly influenced volunteer engagement. Specifically, pre-disaster factors including the characteristics of the individual and their integration influenced their engagement during response. Once the flooding had occurred additional factors including unmet needs, motivation, the individual finding a goodness-of-fit with a volunteer site, and an individual's availability, mobility, and accommodations all influenced their engagement throughout response. The Chapter Six reviews a number of factors that did not seem to influence volunteer engagement in response in the case of East Texas.

CHAPTER SIX: RESPONSE THEMES BUT NOT FACTORS

During data analysis a number of themes that emerged but did not seem likely to explain volunteer engagement in the case of East Texas. These non-factors still are important to report because of the research question for this study and the goal of the research which was not just to explain the East Texas case but to also develop a list of factors for future systematic testing. Thus, while factors did not explain engagement in this case they are included because they may prove relevant to explain engagement in others. It stands to reason that the themes discussed in this Chapter could be involved and have some influence on volunteer engagement despite a lack of evidence in this specific case. The themes suggested here, though not necessarily factors in East Texas, could explain volunteer engagement in other disasters.

This first section will address the theme of challenges raised by participants. The second section will review observations made about the organizations involved during response including both organizational partnerships and volunteer recruitment. The third section will address observations about the influence of government on volunteer engagement.

Challenges

The researcher expected that throughout the course of their engagement volunteers would likely experience challenges. In fact, the researcher specifically included this question in the interview guide expecting that it would lead to a conversation about barriers to their engagement and subsequently lead to factors that influenced their engagement. Surprisingly, the vast majority of volunteers reported no significant challenges. When asked, volunteers responded,

Nothing really. Nothing really comes to mind.

I haven't had any problems with anybody. Even the people that's living here. You know, I know they're frustrated but it's been wonderful. I really, it's been great... The only challenge we kind of have is that people get frustrated and people's tempers start to flare

because you know, you got people with kids. That's the only thing. Kids are going to be kids.

Wonderful. The residents have been very kind. No problems with the residents. Things have been wonderful. For me so far everything's been fine. No problems. No challenges.

No not really. Just a little tired. Seven or eight hour shifts for days. Like, oh I need a vacation.

No, just when you volunteer for a long time you just get a little frustrated and tired. But I still feel good.

The researcher was surprised to find that volunteers did not talk about problems or challenges related to any point of their volunteer experience. Individual volunteers noted a difficulty navigating to their work sites because of flooded streets or being tired after working 12-hour days all week, but none of these "complaints" seemed to be significant barriers to volunteering, tarnish their volunteer experience, or otherwise be of significant concern to the volunteers. They expressed an understanding that this was a disaster and that everyone would need to be patient and flexible. Volunteers overwhelmingly said that they had a good volunteer experience and would volunteer again in the future.

It was not only the individual volunteers who reported not facing any significant challenges, the informants also struggled to name any. As with the individual volunteers, it was clear that the individuals in leadership positions were tired from a long week, but again, it was not a barrier to them engaging as they reported being able to overcome barriers as they arose. One informant summarized the type of frustration that can come about while managing volunteers,

If you're not capable of dealing with that then it's not for you, it's just not what you're meant to do. You have to be flexible, you have to be un-egotistical, you have to be willing to deal with probably the largest, the biggest challenge that I find, with my personality, is the volunteer situation. Because people are very opinionated and they show up with 'why don't you this' and 'why don't you that' and I'm just like, 'Really? Do you think we just started this?' I had a gentleman yesterday that got in my face.

You're so tired. You know, I don't work this hard when I'm not here and I don't answer all these questions. I have my own company. I do whatever I want. I don't answer for any of it. So, your life is just different in deployment than it is in your normal life. It's a different skillset. So when you're asked, as a lead, I'm asked 300 questions a day. What do you want me to do now? Where does this go? Where did you get this? Why did you use that? Where did you put this? Why are you here? Just a lot of, it's just a whole group of toddlers. Your whole day is like that so you know, I'm patient with all that but if you're physically tired and then you're trying to stay on top of 100 herding cats and then someone comes at you, emotionally it's really easy to be like, 'why am I here?' There's just this moment of just like, I don't have to take this

Again, this frustration was not a barrier to volunteer engagement and informants talked about being able to move on from frustration quickly.

One challenge that both volunteers and informants across multiple sites noted was related to frustrations that local volunteers had with out-of-state volunteers.

The majority that I've worked with have been okay. Some of them [affiliated volunteers] though are just kind of lazy and want to eat everything. They like to play the victim but the majority of them are good.

I think... I don't know. Just one thing happened yesterday. I don't know. I just don't want to get involved. I saw there was a problem so I just walked away.

Have there been challenges? Yes, ma'am. With the other [affiliated] volunteers. Difference of opinions. I won't go into details. There were some things I didn't think we're right. It's not about us, it's about the people. Making sure people have what they need. **When those things happened how did you work through them?** Well, I almost left. I just, I remember what I know. I talked to my mom.

The Red Cross, they never called anybody. It was just people showing up. We aren't going to turn away free help; you know? So, anybody that wanted to help us could. Well, I keep saying "us" like I'm Red Cross, I'm not part of the Red Cross. I don't think I ever want to be a part of the Red Cross after seeing what happened. It's just, how in general, it's just more about the name. Yes, I understand there's a system you need to follow but it's a natural disaster. You can't help not follow the system sometimes. Like, throughout the week they were trying to figure out how to fix everything, put out the fires and make sure everything is up to Red Cross standards. Like I said, it's about the name.

Most of these people are retired, that work with the Red Cross so it's all volunteer work. Most of these retirees this is a vacation for them because they get to travel. All you have to do is make sure people don't die on the bed. So these people come from all over the United States. They get free hotels, free car rentals, free airfare. Does that sound like a vacation to you? So they show up, put their coat on, do a briefing and say, 'hey, we're

going to house 500 people and we just need to make sure they stay alive until the city comes in and cleans it up'. So it's all about the name which is what I really hate. When they were telling me about this, this is why I don't work at the Red Cross. There are other organizations out there that put the people first. The Red Cross doesn't come to you; you have to come to them.

Though navigating these relationships were a challenge, volunteers were still able to overcome them and continue to volunteer. It was clear from discussions with local volunteers that working at the same site as out-of-state volunteers was frustrating for them. Through probing, the researcher determined that these frustrations were mostly prevalent among local volunteers in leadership positions, rather than local temporary volunteers. And, although these frustrations were valid, they did not keep anyone from continuing to volunteer.

At an organizational level, there seemed to be a similar challenge. Several informants referred to tensions between certain organizations that are frequently involved in disaster work. However, the informants were quick to note that this tension seemed to be more minimal than had been the case in most other disasters. One informant summarized this issue and speculated that perhaps it was because of where the organizations had happened to end up working (i.e., not in close proximity to one another) that mitigated these tensions during the East Texas flood response.

Well, of course we've worked with Red Cross through here and they've been great. We haven't had any issues. I can't think of any issues that we've had. You're just talking this deployment right? Yeah, there's a competitiveness to this that I did not expect when I first got involved. I was just like, this is such a weird, especially the non-church backed organizations. You know, [list of secular disaster volunteer organizations] and it has to do with money, FEMA money. So, but there's a real cattiness that I never dreamed in a million years when I got involved in [my organization]. It's just so far out of my mind of thinking that that could be the case. And so, it's definitely, I've definitely seen it but not this deployment. **Do you have any idea why you haven't seen that this deployment?** We're not where they're at. Usually we're at ground zero. Every disaster's a little bit different but typically there's one big central station because there'll be one big area that got hit. That's typical, especially for tornadoes. So you'll have one church or one community center something parking lot that will take on 10 different groups of people

that will come there. And, whenever that happens you just see that, it's an odder dynamic than when you're off in the corner and not in the middle of all of it.

It seems that there could be a factor that influences volunteer engagement related to the issue of how local and out-of-state affiliated volunteers interact with one another and the relationships between different disaster organizations. Ultimately, challenges were not included as a factor explaining volunteer engagement because these frustrations or tensions did not alter decisions made by volunteers.

Observations about Organizational Involvement

There were a number of voluntary organizations involved during response to the April flooding in East Texas. The researcher spoke to representatives of many of these organizations either by interviewing their volunteers or informants representing their organizations. The researcher also made observations about these organizations as she encountered them throughout the response. The organizations represented in this study varied in terms of mission, organizational size, location (i.e., local or non-local), tasks, and their extent of involvement.

There were two primary reasons that organizations became involved in the response. The first was that some of the organizations had a specific disaster mission. Some of these organizations were asked to volunteer by organizations that were already on the ground responding to the disaster while others just deployed on their own. One participant summarized the approach of disaster organizations by saying, "our site manager makes a connection at a location before we leave with the trailer. We don't come into an area without already having a relationship with someone." Organizations with disaster-missions that deploy regularly to disasters are practiced at doing so.

Some organizations did not have a disaster-specific mission but still became involved because they were local to the community and felt their constituents were in need of help. The decision for these local organizations to deploy was a product of being integrated into the local community beforehand (i.e., having worked with the community before and knowing that community) and hearing from them that assistance was needed or by a product of being local to the community and seeing there was a need.

Our representative who comes out to [this county] once a month is in contact with the local people... Our counties weren't affected last time. Last year when there was that bad flood our counties weren't affected that bad and so we didn't have any need to go out.

We had to get here and organize. So, again, as you look around all the various areas. Various people started calling this church once they realized it hadn't flooded – pastors and the mayor, the red cross. We all just connected. I can't really explain how we know. We just automatically all call each other.

When organizations saw the need in their community they engaged.

The extent to which the deployment of an organization to East Texas influenced volunteer engagement was primarily related to the volunteers affiliated with that organization. Their involvement did not seem to influence the engagement of non-affiliated volunteers in the context of East Texas. Yet, because the presence of voluntary organizations was relatively minimal in this case, it is possible their absence led to more involvement from local non-affiliated volunteer and may explain the emergent nature of the volunteer sites.

Organizational Partnerships

The extent to which various voluntary organizations worked together during the response varied. There were only isolated instances of organizations sharing volunteers and volunteer sites. It was the case in the majority of these instances that organizations had not made any formal agreements with one another ahead of the flooding. Rather, these partnerships were the

product of connecting with one another during the response period and seeing that there was an opportunity to work together.

We've all partnered so we're here today and another church will come tomorrow so it's been a collaboration from different people in the community, different churches, different organizations. It's been a collaboration.

Yesterday, we had a group show up and they were just here to help. I didn't need them so I sent them over to [the other organization working at the site]. They worked with [that organization] for 4-5 hours. In this case, with the church set up to do all this distribution and donations, it's made all the difference. We can send people over there and they can use all the help they can get. Especially during the week because this is a big beehive Wednesday, Thursday, Friday.

We come together and organize. They say, 'we're going to do this' and we say, 'okay, we're going to do this other thing' and then it all just comes together like this. So when we come it is kind of easy to organize because if you're coming and you want to get a survival kit, that's great. If you're going to get [help from this organization], you can just get that. Then we have people come in from all the various stores and organizations who donate things.

When organizations started to work together it tended to be a spontaneous partnership that occurred at the actual volunteer site. It was most often the case that an affiliated volunteer out working at volunteer site made the decision to partner with another organization. Organizations that were in physical close proximity to one another during the response were the organizations that ended up working together. In other words, organizations were not calling one another across the city to find additional volunteers or share information. The decisions to co-locate or share volunteers across organizations were made by the volunteers at the volunteer sites, not by leadership in the organizations. The affiliated volunteers out in the community were relatively autonomous.

When these organizational partnerships dictated where affiliated volunteers would work, then clearly the partnership influenced volunteer engagement. However, the researcher observed only a few instances of organizations partnering during the response so it did not influence the

engagement of many volunteers. Perhaps if organizational partnerships had occurred to a greater extent during the disaster it would have a more significant influence on volunteer engagement. Unfortunately, this potential issue cannot be studied readily. The researcher was particularly interested in exploring the extent of organizational partnerships because there was a mechanism in place in East Texas to facilitate organizational partnerships, a LVOAD (Local Voluntary Organizations Active in Disaster).

Many communities across the United States have LVOADs. These LVOADs typically have representatives from local organizations that anticipate being involved in a disaster in their community (e.g., chapters of national disaster groups, emergency management representatives, and local organizations) and engage with one another through the LVOAD pre-disaster. The specific missions of LVOADs vary but generally they serve as an opportunity for these groups to network with one another. In East Texas, one such group exists, The Gulf Coast VOAD. This group was formed in 2005 and from their web presence seemed to be well developed. Unfortunately, none of the LVOAD members whose organizations were involved in the response would agree to participate in this study. So, the extent to which the Gulf Coast VOAD was involved in the response is unknown. However, an emergency manager from a neighboring town noted that at the time of the flooding their town did not participate in the Gulf Coast VOAD nor did they have their own LVOAD; though, the town had some relationships with national disaster organizations.

No we don't have a VOAD. We have some real local groups but we don't have many state or national groups. We have access to The Red Cross. Of course we have Salvation Army. When the Red Cross went through their big reorganization, we used to be in with Bay City and we worked really well with Bay City, but then they changed and we went to Houston. We said when we went to Houston we were going to be the Red Headed Stepchild. And, when we first started we were but we have a really good representative that we have now from the Red Cross. We have a really, really good working relationship with him. I can call him at 3am, and I have. You know, he'll answer the phone and by

6am they're here. So we had the two floods and then right after that we had a huge apartment fire. I was hollering all about.

From the researcher's observations and informal conversations with local community members it did not seem that the Gulf Coast VOAD influenced volunteer engagement during the response to the flooding. Again, a more active LVOAD seems to be a factor that could be relevant to volunteer engagement in other communities so it is a factor that future researchers should consider.

Volunteer Recruitment

An additional theme that arose during data analysis was related to volunteer recruitment by organizations during response. The vast majority of organizations did not recruit volunteers *during* the response to the flooding in East Texas. One informant, representing a local non-disaster voluntary organization that became engaged, explained,

There wasn't any time [to recruit volunteers], honestly there wasn't any time to. We know, we kept hearing the floods were coming, we had meetings here, in the cafeteria here, in our gym with the community, to advise everyone what has happening and how fast the water and some people just don't believe it. With that and us knowing that it probably will be as bad as they say, our thing was to go around and get these people out of here as soon as possible. So, we didn't have enough time to recruit more volunteers.

As this informant explained, there was not enough time to recruit volunteers even if they had wanted to do so.

Volunteerism was sustained at each volunteer site by the local volunteers that found their way there through finding help was needed through pre-disaster integration.

I try to have zero expectations for everything. I just knew people would respond. They tend to listen if someone they know is not dramatic and overreacting, say there's a need. People tend to respond. Social media has been helpful in that way. There's always the people who you're surprised don't respond. But you're always, you know, overwhelmed by the people who do.

Though organizations did not actively recruit volunteers during the response they did call their existing members to volunteer.

Something to note about [this organization] is that they will bring people in from all over the country. [Another volunteer] and I are actually from Prairieville, Texas which is about 350 miles from here and we've been here all week. We're both volunteers. We're both members of the [organization].

So the way [this organization] works is they have about 30 chefs that are a part of the program. Anytime there is an impending disaster they contact us through a private Facebook site and ask availability for each of those people. So we sign in for each one, tell them if we're going to be available, what dates we'll be available, and then they contact us if we get deployed. They have a lot of people volunteer.

The only "recruitment" occurred when the call went out through the media that the Red Cross and the Houston Food Bank were accepting volunteers.

Any efforts that an organization took to engage volunteers in this case were through contacting their existing group members. The fact that volunteers were not recruited during the response could be due to characteristics of the East Texas flood event, namely that it was a quick onset event. It seems intuitive that in slower onset events organizations may take the opportunity to recruit volunteers. As such it would be prudent for future researchers to explore the potential influence of volunteer recruitment in future research.

One might expect that voluntary organizations would have a significant influence on volunteer engagement because we expect that they are overseeing volunteers. Ultimately, however, the influence of voluntary organizations on volunteer engagement during the response to the flood was minimal. The involvement of certain voluntary organizations did dictate the involvement of their affiliated volunteers to an extent but ultimately relatively few affiliated volunteers seemed to be involved. And, affiliated volunteers had a significant amount of autonomy when out at the volunteer sites. It was much more often the case that the individuals

who were volunteering were simply members of the community that had heard there was a need for volunteers, found their way to a volunteer site, and began helping.

In fact, to the extent that organizational involvement may be a factor explaining volunteer engagement it seemed that it was the lack of organizational involvement and control over the situation that was influential. Perhaps, if there had been organizations with affiliated volunteers there to coordinate the volunteer sites, the local volunteers would not have needed to run the sites themselves through the emergent structures that they established. Considering this is only a single case study, including this as a factor would be speculative. Nonetheless, the influence of voluntary organizations on volunteer engagement should be explored in future research it would particularly be useful to compare an event with high numbers of voluntary organizational involvement to one with low numbers of engagement. Future researchers should make an effort to understand the role that organizational engagement plays in influencing voluntary engagement in response.

Observations about Government Action

As with voluntary organizations, it seems intuitive that actions taken by the various actors within government would have some influence over voluntary engagement during response. Yet, as with voluntary organizations, the researcher found that government action did not rise to the level of being a factor that directly influenced volunteer engagement. One way that government officials could have influenced volunteer engagement was through pre-event planning. Two emergency management officials noted that their counties did not have any plans related to volunteers before the flooding occurred.

We go to church together. Our Pastor is the deputy emergency manager for the county. So all three of us see each other every weekend. We all work very closely together.
Before the flooding happened this year did you have plans ahead of time for

managing the volunteers or anything related to the volunteers? No. Did the county have any volunteer plans ahead of time either? No, not that I know of.

Then did OEM have any plans in place ahead of time for working with voluntary agencies or volunteers? Not a whole lot. Our biggest concern beforehand was the donations warehouse, and that's where we did reach out to [a group of churches] to get an MOU with them, that they would manage a donations management warehouse. It was just, they want you to pay for particulars. That was part of our, that's part of our plan. I'm not sure what annex, because I don't get into the annex system much, but that was definitely one of those.

The researcher also consulted all publicly available plans that would have been used in the three counties and could find no plans in place for volunteer management.

The argument could be made that the absence of volunteer plans did in a way influence volunteer engagement. Perhaps if the local community had created volunteer plans ahead of the flood event, they could potentially have had influenced volunteer engagement. Future researchers should consider the role of local emergency management agencies and when volunteer plans exist, researchers should consider the extent to which they influence volunteer engagement.

It was the case that some government actions seemed to influence some of the voluntary organization involved. As would be expected, the government did not take on the responsibility of coordinating volunteers during response. As one emergency manager confirmed, "I let them [nonprofits] more or less coordinate the volunteers. Any volunteers that came in we directed them in that direction." Another said,

No most of that [volunteer management] was handled by [the local voluntary organization] and the church. They were doing real good on some of that initial coordination and we tried to steer everyone towards them. Simply because we didn't have the personnel. You know we were up to our bottoms in alligators trying to get state resources in. The Voluntary Agency Liaison (VAL) that came in was tremendous. She made me tired just watching her work. She had so much energy. Then, we sent our VAL with our youth pastor and the people at [the local voluntary organization], and just let them handle that. For two reasons really. First of all, we were busy doing other things and the other was that they understand the unmet needs of the community better than I do.

But I still, I mean, numerous times a day I would call over or go by there just to see if they needed anything.

These emergency management officials kept mentioning the larger disaster organizations and seemed to imply that they were heavily involved in the response. This perception was one that was also held by some of the individual volunteers. However, informants who were in leadership positions at the volunteer sites strongly disagreed that these larger organizations played a significant role during the response. This was also confirmed by the researchers own observations. Because of these conflicting perceptions it is difficult to draw conclusions about how it may or may not have influenced voluntary engagement.

It was not just that local government was uninvolved in coordinating volunteers, it was also that there was a lack of communication between the nonprofits and government related to what the needs were in the community and what resources were available to meet those needs. In fact, out of all of the response interviews conducted for this study, there were only two instances where a voluntary agency reported that they took a certain action based on the action of a government official,

So the folks within the disaster community contacted us. It was the Houston emergency management. They called and said we need this, at this spot. They already had the food boxes ready to go.

My husband works for the city. The city has provided information to us on the low lying areas as where to start first.... I mean, the city has been open with information to me because they know we're using it to help and not hinder. They know we're not just turning it lose to individuals and that we're training our own people.

In these two cases, emergency management officials seemed to influence actions taken by voluntary organizations, but it is not immediately clear the extent to which their influence and voluntary organizations in turn influenced volunteer engagement.

Perhaps though, the fact that there was an absence of communication did influence voluntary engagement. Altogether this lack of communication is not surprising both because there were relatively few voluntary organizations and because voluntary organizations are autonomous. If voluntary organizations and government were coordinating or even just sharing information, it could have some influence over volunteer engagement in some way. Yet, as with the challenges volunteers experienced and organizational partnerships, it is inappropriate to discern factors solely based on the absence of a potential factor. It is, however, appropriate for these themes to be included in the list of potential factors that future researchers should consider.

Conclusion

The themes addressed in this chapter include challenges, partnerships among voluntary organizations, and government action. These themes did not warrant the designation of a factor that explained volunteer engagement in the case of East Texas but, there was some indication that they may be relevant. It may very well be the case that these themes never prove to be factors that explain volunteer engagement, but it would be prudent for future researchers to still consider them along with the factors identified in Chapter Five. Chapter Seven will review the volunteer engagement during the recovery time-period in East Texas.

CHAPTER SEVEN: VOLUNTEER ENGAGEMENT IN RECOVERY

This chapter will tell the story of volunteer engagement in East Texas related to flood recovery. Disaster recovery is defined here as “the differential process of restoring, rebuilding, and reshaping the social, physical, economic, and natural environments through pre- and post-event action” (Smith & Wenger, 2006, p. 237). And, as a reminder, engagement in this study is understood to be the prevalence of different types of volunteers, the overall number of volunteers, the tasks and activities they engage in, and the duration of their involvement in recovery. The first section will review the data collected by the researcher prior to arriving back in East Texas. The next section will review the extent of unmet needs in the community. Finally, the volunteer engagement at the volunteer sites included in this study will be described, including the tasks with which volunteers engaged.

The researcher made a second trip to East Texas to collect data in August 2016. Between data collection trips, the researcher maintained contact with a number of organizations and community leaders and followed local media coverage to keep abreast of recovery progress in East Texas. The researcher also conducted several interviews by phone with informants including local emergency management officials and the staff of voluntary organizations in the interim. These interviews provided the researcher with an understanding of volunteer engagement in East Texas. The researcher also sought recommendations from informants about where to find volunteers currently engaging in recovery work at the time of the researcher’s second visit. Prior to arriving in Texas for the second time, the researcher made arrangements to interview volunteers with three organizations working in East Texas.

Unmet Needs

Throughout the course of data collection, it was made clear that there was an abundance of unmet needs in the impacted communities. Yet, the recovery-related unmet needs varied across and within communities. Not only were individuals and households at different points in recovering from the April 2016 flood event, but there were also individuals and households still recovering from the other five flood events that had taken place over the past year. As one informant explained, “these last 12 months were the rainiest, wettest season Houston has had in recorded history. There's been a lot of flooding.” Another explained the recovery process from previous floods was ongoing,

But what's interesting about it is that it takes forever! That's what people lose track of, 'oh, 2015 that was last year, that's over and done with!' But we still have people that have had sheetrock in their homes since last year in May. And, because nobody has really heard about them, they didn't have the funds, they didn't know where to go.

The researcher asked another informant if there was significant overlap in who had been flooded each time,

There's a little bit but not as much. There were many, many, many, many broader areas that flooded in 2015. When I say broader areas, I mean more of the like Harris County and Fort Bend County that were hit last year whereas this year I think they said 12 counties had been affected.

Some organizations were assisting with the recovery from just one of these flood events, while others were/ had been engaged in more than one of these recoveries. As a result of these multiple, simultaneous recoveries it was not possible, nor appropriate, for the researcher to only consider the April 2016 recovery. The needs that volunteers were addressing, were not only related to the April 2016 flooding, but also the other flood events that had affected the community. The researcher asked one informant to estimate how far along the community was in terms of rebuilding homes from the first flood from May 2015.

Let me just say about maybe 60% from a construction standpoint. That's only of the ones that we know. The reason I'm basing that is by thinking about the number of homes we had on our construction list in addition to the homes that this new group is aware of or anticipates having issues with, then of those how many have been taken care of. I think it's about 60% because [the other group] really just came on board in January/ February. In fact, she just hired some more case workers a few weeks ago so they're really not, they haven't even really been dealing with their cases yet.

While in East Texas during recovery, the researcher confirmed, first-hand, that there were many unmet needs throughout East Texas. Observations from traveling through the impacted communities as well as information garnered from informants and volunteers confirmed that communities were at different stages of recovery. On the subject of housing alone, some were in the process of being gutted, others had started being rebuilt, and work had yet to begin on others. One participant explained where his community was at in the process, "I believe that's about the point we're in, putting stuff back in the homes." And, another explained of their community, "That's, you know, again, we're still working on 2015, some that haven't even been touched yet. Because we're just finding out about them or they're just making it to a case manager." Other informants discussed the extent of unmet needs across the impacted communities in East Texas.

There are a few local organizations that have been providing volunteers but also there is still a huge unmet need. With these homes, a lot of the small towns outside of Houston haven't even been touched by organizations or had the county go out and inspect them yet. It took some of the areas, we didn't get access to them until 2 weeks after we arrived because the flood waters hadn't crest yet.

So, yes but it just takes a long time because first they have to do what they can and you know get their FEMA money, their insurance money, and then they have to find contractors, and then they have to have the work done and then there has to be the ones with the unmet needs.

We still have people who are not back in their houses. We have people that got back in their houses and then got flooded again that are now in limbo. I think there's a lot of frustration with the disaster grant process. Specifically, with the speed at which it moves. People were told to expect a bit of a wait but here we are 2 years later and still we haven't seen the money even though they've been told they have the grant.

Overall, there were a variety of unmet recovery-related needs across communities in East Texas. Some individuals and households had begun the recovery process only to be flooded again. Some were in the process of waiting for loans, FEMA grants, or insurance money. Some were in the process of cleaning out with some even starting to rebuild. Representatives of voluntary organizations were also all quick to point out that there were still a number of people with unmet needs who they had not yet found.

Volunteer Landscape

In total, nineteen volunteers and eleven informants were interviewed about the ongoing recovery, as well as four people who were both volunteers and informants were interviewed. Prior to traveling to East Texas, the researcher had made arrangements to interview volunteers working in the impacted community. Once in East Texas, however, the researcher learned that two of the organizations overseeing these volunteers had unexpectedly put their recovery operations on hold because they did not have enough volunteers to maintain their work. One informant later explained, “We've been responding ever since January this year because of the tornadoes that happened in December. It just rolled over into this year. Up until this week, is the first week we have not had any volunteers in the field.”

The researcher took four additional steps in an attempt to find additional participants following this unexpected development. First, the researcher spent a significant amount of time driving through neighborhoods that had flooded. This allowed the researcher to make first-hand observations about the progress of recovery. It was clear that each neighborhood had made various degrees of progress. For example, some had debris outside, some were full of boarded up homes, while others appeared to be at various stages of re-construction. Yet, regardless of progress made, it was apparent that there was still a significant amount of work to be done in

each neighborhood. These observations confirmed what participants said about the current state of unmet needs.

Considering the extent of visible need, the researcher expected to see volunteers working throughout these neighborhoods; but, she did not. Furthermore, the researcher saw no indication that there had recently been volunteers working in any of the neighborhoods. Only a handful of homes in each neighborhood even had professional contractors out working. The researcher was even conscious about driving through neighborhoods at different times of the day and on both weekdays and the weekend. In all, there was very little recovery work ongoing in the neighborhoods the researcher visited.

This phenomenon was not only in isolated neighborhoods. The researcher visited neighborhoods in three counties that were diverse in the type of housing (i.e., single family homes, mobile homes, apartments) and income. In Harris County alone, the researcher visited seven neighborhoods that had flooded in the April 2016 and/ or June 2016 floods. In Wharton County, an emergency management official took the researcher on a driving tour of the flooded areas in one town. Again, there were plenty of flooded homes in need of work but not a single one appeared to be actively being worked on, and none by volunteers. In Fort Bend County, the only current work being done seemed to be from the organizations the researcher was already in contact with.

After driving around the researcher recognized that the story of recovery engagement was not about individual volunteers, as had been the case in response, but rather it was about voluntary organizations engaging in recovery work. So, the second step the researcher took was to re-contacted key informants she had spoken to during response to ask if they had any recommendations of where to find volunteers currently engaged in recovery work. The

researcher also asked the same of the informants interviewed throughout the week in East Texas. In total, the researcher was able to gather a list of fourteen additional organizations that informants thought might have volunteers out working in the community. Yet, surprisingly, none of the organizations were currently using volunteer labor, though they had all worked with volunteers earlier in the recovery and/ or were considering working with volunteers at a later point in the recovery.

Third, the researcher looked online for organizations engaged in the recovery process. Specifically, the researcher looked in local newspapers, websites, and on social media sites to see if any organizations had been written about or were advertising volunteer opportunities. The researcher contacted a few organizations and several churches as a result of this research but was unsuccessful in finding current volunteers. Again, some organizations had used volunteers a few weeks before and others were planning on using volunteers in the coming weeks, but none were currently using volunteer labor.

Finally, the researcher contacted an organization in East Texas that had been loaning supplies to other organizations engaging in recovery work. This organization reported that they had worked with many groups located throughout the East Texas area during the numerous flood events. At the time of the researcher's visit, they reported they only knew of one active organization in the entire greater Houston area, a group of which the researcher was already aware. This organization was in a position to speak more broadly about volunteer engagement in East Texas as a whole and claimed most groups had left the area.

Though at different stages of recovery, it was clear to the researcher and everyone the researcher spoke with, that there were a variety of unmet needs throughout the community. And, those unmet needs were those for which volunteer labor is frequently used to address (e.g.,

gutting homes, rebuilding). Yet, there was little to no volunteerism occurring in these communities at the time of the researcher's visit. In fact, there seemed to be few voluntary organizations with *current* recovery operations in East Texas. One informant confirmed this saying, "there were quite a few organizations here at the beginning. They stayed for about two weeks. At this point, we are the only VOAD organization left in this county. There's a couple local groups that have been going out on the weekends."

Given the extent of the researcher's interviews, online research, and first-hand observations the researcher felt confident that there was likely no other groups of volunteers out working in the impacted communities despite widespread need while she was in the area.

The literature does suggest that there tends to be fewer volunteers in recovery as compared to response (e.g., Phillips, 2015). Still, given the extent of unmet needs, particularly how visible those needs were, the researcher would have expected to see more volunteers, in more places, engaged in more tasks. The researcher was concerned that perhaps the low rates of volunteerism during the week of her visit was a fluke and not representative of the typical engagement seen during recovery in East Texas. While it does seem that there were less slightly volunteers that week than usual based on the interviews with informants, there were not usually vastly more volunteers. Informants explained,

We went in with a pretty small team ourselves just consisting of mostly our team leaders to lead their numbers that they [a local church] thought they were going to have. We got in and they did not have the big numbers they thought they were going to have, so we wanted trying to ramp up our own team.

I can say about 150 people easily came to volunteer. **Okay, was that mostly right after the April flooding?** Yeah, it was right afterwards. **About how long, would you say, that volunteer help lasted?** It lasted about a month, okay. Then we were hit again. That brought some more back. **What about now, do you have people still helping?** It lasted about a month. Right now we don't have volunteers helping.

I have so many projects going on and very little engagement in most of them.

The first week we had the most number of volunteers. The second week fell off to about 85% of that. And then it went down steadily from there because people who aren't affected by the disaster move on with their lives. There's this, 'oh that's terrible, let's go help our neighbors' and then after a few weeks they're like, 'I have to go back to my life'. We were quite lucky, we reached out to [a church], and a few other places where we knew that we would find lots of volunteers to say, 'hey, we need a second wave of volunteers'. We were lucky that people were gracious enough to come help.

There was a certain day when me and one other person were the only ones in the field. So, yeah, there could have been more people but recently with the AmeriCorps Team we've been fine. I came straight from Nepal. In Nepal we had a 120 people connected with our base. When I got here we had 8. So, it's just a big change.

Informants who were in the community and involved in the response efforts as well did note that there were significantly more volunteers during the response and immediate short-term recovery. In other words, in the week or so after the initial flooding there were higher numbers of volunteers than there were just a few months later.

Some volunteers were local to the impacted community but the majority of volunteers were from out-of-state. There were also several AmeriCorps volunteers in the area assisting with the recovery efforts. AmeriCorps is a federally funded volunteer program that sends individuals to locations around the United States to assist with community service projects, including disaster relief efforts (National Service, 2017).

Volunteer Sites

Though recovery was characterized by organizational involvement, volunteers were working at a number of volunteer sites throughout the community. The volunteer sites themselves were relatively unremarkable in terms of their ability to explain volunteer engagement. Despite trouble finding volunteers, the researcher ultimately interviewed 20 recovery volunteers. The volunteers interviewed for this study were primarily working in Fort Bend County. The researcher visited six different sites in Fort Bend. The researcher interviewed

volunteers and made observations about the activities volunteers were engaged in at each site and the need in the area. Five of the sites were overseen by a single organization, however, they were hosting volunteers from four separate organizations. In other words, though a single organization was directing the actual volunteer sites, the volunteers at each site came from a number of organizations including a federally funded volunteer program, a corporate volunteer group, a local church, and volunteers who were directly associated with the host organization. The researcher spent between an hour to five hours at each site depending on the number of interviews conducted.

The sixth volunteer site was located at a local church. Volunteers were organizing donations of in-kind household items to be given out to those who had been impacted by the flooding. The church was operating as a distribution site independent of any other organization. At the time of the researcher's visit, there were only two volunteers working and both were members of the church.

Two other volunteers were included in this study who had previously volunteered in East Texas, but were not engaged in recovery work at the time of the researcher's visit. One of these volunteers was interviewed at the end of the first data collection trip. The volunteer was engaging in recovery work at the point where response and recovery were occurring simultaneously. The researcher interviewed this volunteer at the office of the nonprofit she was associated with so no first hand observations of the volunteer site were made. Nonetheless, the volunteer described the site she had been working at in great detail. The second volunteer had volunteered following in the May 2015 flood event. This volunteer was a member of a university group that had volunteered for a week over a school break. This interview was conducted via

phone so, again, no first hand observations could be made by the researcher. However, the volunteer described the sites she volunteered at throughout the interview.

It was at these sites where the volunteer labor that organizations and communities were put to action. Each volunteer site included in this study was established by a voluntary organization. The volunteer sites were intentionally selected by the organizations after conducting damage assessments. In other words, they did not spontaneously emerge as was often the case in response. One informant explained how their organization selected where they would work,

It's by working with the emergency managers, local church information, and knowing where other volunteer agencies are working... Well, because this event was so big, we try not to do too much duplication. This is basically where the flooding started. It was a five-hour drive south to where it ended at the gulf. There was a lot of communities. There were some volunteer agencies already working but were leaving communities out. That's how we picked it.

Like response, volunteer sites were where volunteers actually engaged. The actual process, however, of an individual volunteering at a site was completely dictated by the organization with which they worked. The individual volunteers themselves did not have a say in selecting the volunteer sites. Where the volunteers ended up working dictated what needs they addressed through the tasks they were assigned by the organization.

The volunteers included here were diverse in terms of their occupations, residences, race, gender, age, and previous disaster experience. Informants confirmed that this was the case throughout the length of recovery at their volunteer sites.

Our volunteers come from all walks of life. We have some volunteers that have worked on the shuttle and power plants, all the way down to the everyday blue-collar person. We have a lot of first responders that are retired. They retire from fire, police, or military and this way they feel like they're involved and continue in kind of what they were doing before.

We have a very diverse group. We have [a volunteer], he's like 60 something and he's one of the better volunteers. He's fantastic. Then [another volunteer] is 19. So we do get a vast amount of folks, that's one of my favorite things about [this organization], it is very gender and age neutral. I've been in programs where I was belittled because I was a woman or because I was young. I don't think we necessarily get one demographic. I think what we do have is very open minded, like minded folks. In terms of age, gender, ability, we're pretty open.

It was a mix. There were some younger folks that we were a little apprehensive about but we let them go as long as they were with a parent. There were some teenagers, some older.

It varies. With our organization there are a lot of young volunteers between the age of 18 to 30. We do get some older volunteers. A lot of it is people coming right out of college, or right out of AmeriCorps and they haven't figured out what they're doing with their life yet so they stay with us for 2-3 weeks or months at a time. The older generation of our volunteers, it's just something they love to do. They love it.

It can be different things. Some of them are retired so they have the time. Some of them work seasonally so they make an income and then come live with us for a while before going back to work again. Some of them have very nomadic lifestyles. Some of them are just looking for something new. Some of them are looking to take a break from school to figure something out. There are some who just don't know what they want so they're trying a bunch of different things. It's really diverse. I don't think that we necessarily have... It is diverse.

Participants varied in terms of the duration of their volunteer commitment. Generally, local volunteers tended to volunteer on and off over a time period of several weeks, as their schedules allowed. Non-local volunteers volunteered all day, every day while they were in town. The length of their stay varied from one week to several months.

Volunteer Site Structure

The volunteer sites included here were structured similarly. Typically, there was staff or volunteers who had been given a leadership position who oversaw the volunteer site. These leaders directed volunteers on-site about what needed to be done and who should do what tasks. The site leaders also provided on-site training as needed, and monitored the safety and wellbeing

of the volunteers while they were on-site. The volunteer sites were highly structured compared to the volunteer sites in response.

From what the researcher observed, the structure at the volunteer site was primarily dictated by the organization in charge of the volunteer site. There was little improvisation in terms of structure, with staff from the organizations overseeing the site and the volunteers. This dynamic was responsible for what tasks volunteers engaged in, how long they worked at the site, their ability to actually do the tasks they were assigned, and more. Site leaders explained their roles at the volunteer sites,

I was kind of thrown into it. I've been a team leader in Texas a lot. I was a few times in Nepal after I'd been there for a month, a month and a half, and I'm used to the work. Here, I was team leader on my third day, because when I arrived, we only had seven people on base. I was the only volunteer. I was one of the only people who could actually lead the teams. In that manner it is just getting thrown into the deep end of the pool.

For the most part, the ones that come back multiple days are pretty good. They sort of know what they're getting into and they're willing to listen and not just go off and do their own thing. Sometimes if they're just coming for one day they can be a little bit, you know, 'this should be done this way'. So, you have to reel them in a bit. Or maybe they don't necessarily know how exactly to use a tool so you have to give them some guidance.

When I was a Team Lead everyday there were day volunteers that would come in and ask if I ever got tired of teaching the day volunteers the same skills for a few hours each day and then letting them go and never seeing them again. I personally love doing it. With volunteers we have to acknowledge that none of them are a skilled contractor. So it's difficult sometimes. It's difficult most of the times. There's the understanding that they are volunteers so there's an understanding that we can't force them to do anything. So, it's hard... Well, especially when you're a Team Leader, I would never tell a volunteer to do something that I wouldn't do. When I'm a team leader I usually find the most boring or the worst job and I'll usually do that just to show them that I care too. And just like keeping them engaged. It can get boring if you're pulling nails all day but you just have to keep them engaged.

One volunteer explained that she simply took direction from the site leader, "I'm not sure. I just do whatever they tell me to. I'm slow but I think I've been helping" and another elaborated, "I'd

say it's been going well overall. The [organizations] team leaders are really good. They explained what's going to get done that day, what the goals are.”

The leaders at each volunteer site assigned tasks to the volunteers and prioritized what needed to be done. None of the volunteers reported taking initiative to find tasks that needed to be done at the volunteer sites rather they sought directions from site leaders. They provided the resources that volunteers needed to accomplish the tasks that were assigned and provided on-site training when needed. Individual volunteers explained the simple but automatic coordination of volunteers at their volunteer sites.

You show up and you show interest. You come when you're called and they'll put you to work.

Well when there's a... of people, and then during debriefing it's basically giving people a sense of what needs to be done. After that when you get in there, they give you kind of like general directives on what should be done.

...there's work getting done. They come in, that mold is down. Those floorboards that are moldy are down. The walls are stripped. The planks are moved, nails are removed. That's been getting done, so that's probably the best thing I think overall, the overall automation of things.

Informants discussed the trainings their organizations provide for volunteers before they work on-site,

Yes, we have an entry-level training. That's just an orientation that they're required to attend every five years. Then in between that time we have specialty types of training, like chainsaw, heavy equipment operations, flood recovery and fire recovery training, childcare training. We do quite a bit of training.

Just the fact that when FEMA came in they just looked and said, you are so far ahead of where everyone else is. I think it's evidence that the system really did work, the training was helpful. I think sometimes you're lucky. **So you attribute that success to the training?** I think it was predominately the training. It's a very sound training. I went through it twice actually. The training was really, really good.

They offer a lot of like training beforehand. They're really about both the emotional side of things for the families and also about technical stuff as well.

There were a number of participants that had previously done similar types of recovery work. These volunteers relied on their previous experience and required less on-site training. Regardless, training was all conducted through the organizations regardless of when the actual training took place.

Tasks

Volunteers working in the community were working to address various hazard-generated (e.g., handing out supplies, cleaning community buildings, cleaning out and rebuilding homes), recovery-generated needs (e.g., damage assessments, case management, coordinating volunteers), and latent needs (e.g., promoting unity within sub-groups of the community) in their communities. Participants explained some of the work they had been doing that fit in the category of addressing hazard-generated need,

We partnered up with [voluntary organization] to muck and gut the houses, mostly for people of lower income, elderly people, one-parent households, people who are having a hard time rebuilding. We've been taking out all of their belongings in the house, putting it out on the side of the road. Then we've been knocking out all the drywall, doing quality control, which is taking all the nails and staples out of the beams, and then we sanitize it with this thing called Shockwave that kills the mold. That involves spraying it on every square foot of the house and then scrubbing it down with a brush. Then it's ready for rebuild for the homeowners.

We are tearing up the flooring. It looks like we're probably 60%, 70% done.

They did everything from help clean up the synagogue which had also flooded. Our priorities were people's houses first and then the synagogue.

Okay. One house, it was called "muck and gut," and we were tearing out the carpets, taking all the wallboard, the sheet rock, off, getting it down to just the studs. Another house, we were disinfecting, so the muck and gut had already been done, so we vacuumed everything. I mean everything. Every wallboard, every 2x4. When that was done, we scrubbed them with a brush and then it was sprayed with an industrial disinfectant. Then we went back and scrubbed down every single board in the whole house again. That was to kill black mold. Those were the things I've done until today. Today we're tearing floors out of a house.

We've been doing the full gambit... Anything from mucking, which is pulling out all the water soaked belongings and stuff like that, to the gutting which is what we're doing here at this site, pulling out walls and beams and ceilings that need to get pulled out. Once we get done with that we go in and do sanitation where we spray it down with fungicide so that the beams don't have any more mold on it so the people can rebuild.

Yea, anything from carpenters, plumbers, electricians that are skilled at managing. Construction managers, administrative folks, folks that can't put a nail in straight but are good at doing a needs assessment. Going into a community and focusing on more of the administrative side.

Other participants explained the tasks they engaged in to address recovery-related needs that arose over the course of the recovery.

Yes, they are having people come in to do it, and you know like I said people with families that we know, don't have the capabilities and really didn't even apply for any assistance from FEMA. When we found out that they didn't apply for anything, the deadline had already passed. Those people we are taking under our wings and helping them get there.

The non-profits are still providing some of the basic needs, mostly conducting disaster case management, and doing some lookouts and sanitation.

We have a group of volunteers doing a needs assessment in Texas

A lot of need was demonstrated when we gave out cleaning buckets. We had 112 flooded homes but handed out 500 buckets. So, it was kind of like, it's free and we'll use it sometime. As a matter of fact, they ended up asking to see ID. We had people coming from out of town that were nowhere near the river to get cleaning kits.

We were inundated with all the supplies and we had to make sure that the supplies were handed out appropriately. We had people from places that didn't get flooded.

Our team worked with the Senator's office to try and get a disaster declared as quickly as possible.

Yes. It's interesting to do that. There are local groups that are much better, more organized than others, who have more resources to address a disaster. Sometimes part of our responsibility is helping groups form and get up to speed so that they can utilize volunteers that come into the area. Housing is often a big part of that.

Finally, one informant explained how the work their organization was doing addressed a latent need in their community. Their group decided to do recovery work with groups in their

community who were of a different faith background in an effort to address race and ethnicity relations in their community.

When there is an opportunity that we can help that community heal from something previous, I mean, we have a lot of law enforcement and minority situations going on across the country, being able to utilize communities building themselves up, it strengthens those ties. People start seeing each other. They're not inside looking at TV or the internet seeing how divided we are, they're outside.

None of the participants had professional experience in the type of work they were doing (e.g., none of the volunteers doing construction work were professionally trained in construction work). None of the tasks volunteers were doing required extensive or professional skills but, unlike in response, most tasks did require training. The volunteers included here were all trained on-site regarding how to appropriately complete the tasks assigned to them.

When tasks at the site were completed, the volunteers and the organizations moved on to work at other sites or re-evaluated the needs in the community. Informants summarized this process:

We basically completed everything we committed to. We muck out houses. After next week, we're re-evaluating. We're getting calls about a few that we'll maybe going back to assist some other folks in some of the flooded areas. We were either missed or weren't contacted.

We just set up and gave out diapers and some ministries came out and grilled food. It was awesome. It was a moment of hope for everyone. I didn't preach at anyone. I prayed with them at the very end. That was just the first one we did.

Based on conversations with informants and volunteers the number and type of needs changed throughout the course of recovery. As the number and types of needs changed in the community, so too did the organizations that addressed them and the number and type of volunteers that were needed to address them.

Group Cohesion

It was clear that relationships formed between volunteers at each volunteer site. The cohesion of the group includes the extent that the volunteers worked together and the “mood” of the volunteer site. Participants consistently spoke about the importance of the friendships and bonds that developed between themselves and the other volunteers. When the researcher asked them about their experience volunteering, the participants responded by using group pronouns, rather than individual pronouns. For example, when the researcher asked participants what tasks they were working on they responded by saying “this is what *we are* doing” rather than “this is what *I am* doing”. The participants consistently considered themselves as a part of a larger group, even when the volunteer had only been there for a few hours.

Group cohesion seemed useful not just because it helped to facilitate tasks getting done but also because it helped motivate the volunteers throughout their volunteer experience. The majority of the participants were engaging in grueling tasks in 100-degree weather so they needed to find ways to keep themselves motivated throughout the day. They explained that the camaraderie that formed with the other volunteers, specifically, having fun at the volunteer site, was what kept them motivated throughout the day. In other words, having fun while volunteering was important to their experience and influenced their engagement. One volunteer simply said, “I think my team has helped me a lot. Just seeing them being motivated to work motivates me.”

Other volunteers said of their experience:

Everybody seems to have a really positive attitude about it. It's not easy work, but people are making the choice to come out here. They're coming out here to do this, to help, so it's really nice. Everyone seems really willing to just work together and get the job done. People are really friendly. When we take water breaks, they ask your name. They want to get to know you, where you're from and everything. It's been a really good experience.

They're a great group of people. Immediately, as soon as we walked in the door they were very welcoming. They made it seem like we had been there since the beginning.

They do that for all the people who join. You get new volunteers every couple of weeks or so. More people come in and it's like they're already part of the whole program and you wouldn't even be able to tell that they were somewhere else a couple of days ago.

The volunteers were motivated to keep working throughout each day and to come back to volunteer more than once because of the positive experience they had working with the other volunteers. Informants confirmed this sentiment:

We monitor the morale of the teams very closely. Each person files a report at the end of their time so if there is anything that's happened we find out through the reporting process or through the site manager.

One of the things that happen on a volunteer site is you form a bond because you're a group of people in a new situation, and I think people really enjoy that experience. You spend a lot of time together with some people you know and some people you don't know, and it can be very rewarding to work together with a group for a single purpose.

Continued motivation while volunteering was a factor in how long an individual sought to volunteer (along with their assignment from the organization and their personal availability).

Organizations were well aware of the importance of keeping volunteers motivated. In addition to promoting group cohesion, volunteers also consistently reported that meeting the homeowners who were benefiting from their work, motivated them to work throughout the day.

I really just like the chance to meet the homeowner. I like to talk to them and get to know the people you're actually helping because there hasn't been a homeowner who hasn't, the second they've seen us be smiling and be grateful for the work we're doing and all the work we're doing for this community.

Also, what people really like is when they are in an area affected by disaster to meet the people who suffered from the ... Who are the survivors. That's a very emotionally satisfying thing to do.

The organizations intentionally facilitated this group cohesion by promoting a positive work ethic, ensuring the volunteers had fun, and having an organizational model that made volunteering with them take little effort on behalf of the participant. One informant noted that her job with the organization was to make sure the volunteers had all that they needed:

I also make sure the volunteers are healthy and happy. It's a lot of work so we want to make sure that they're healthy, that they're sleeping. They are my main priority.

Sometimes a volunteer isn't a good fit in a team. Generally, we track very closely. There's a couple of things there. We make sure our managers are well trained and oriented to not only managing the workload but also managing the team. What we find is that teams will work together on a site before and then ask them to join them on the next site. So, you start to do self-selection.

Um, I mean management comes with its own dynamic. And, managing people in crisis is even more interesting. No, I think that, I don't know. Again, 99% of them are wonderful. I don't know. But you've got to be smart about it too. You can't put people in a position where they can't succeed or get injured. You know, we're on our toes utilizing these volunteers to make sure that doesn't happen.

Return volunteers cited group cohesion as a primary reason for their motivation to volunteer again.

I think we need to be getting residential volunteers so one of the ways we do that is by making sure the day volunteers have a really good time...I think that's one of the reasons people keep coming back, because we have such great volunteers and staff.

I loved [this organization] so much when we started working in Detroit that I actually left AmeriCorps to join [this organization].

And, volunteers noted that they hoped to work with the same organization again in the future. Of the participants who planned to have availability in the future (i.e., were not going back to work/school), eight expressed an interest in volunteering with their organization again. It was not that they wanted to do disaster volunteering work, but rather that they specifically wanted to work with the same organization again. One volunteer explained their plan for continuing to work with the organization in the future, "I mean there are international places like Ecuador and Nepal and maybe West Virginia. I'd love to go internationally because it's such a different scene than it is here. So if I get accepted."

While working at their volunteer site, the participants became aware of the extent of unmet needs in the community. Their new understanding of the unmet needs and seeing the

individuals who were benefiting from their help contributed to keeping volunteers motivated throughout their work day and motivated a number of them to volunteer repeatedly.

But what motivates me is being out in the field... That's what motivates me, coming out here and actually doing the work.

It feels a little more like your connected to the people you're helping. The homeowners come by. You can see them thanking us. It feels definitely like it's more direct help. It's a really good visual to see how you're helping people. It's more direct. It's really encouraging.

When you get to meet the homeowners or meet the people in the community who are so appreciative of the work we're doing it just makes it so worth it.

Participants who had volunteered on more than one occasion in recovery indicated that their initial motivation remained true throughout their experience but that meeting the homeowners of the houses they were working on and gaining an understanding of the unmet need contributed to their continued motivation. In other words, volunteers were motivated for a number of reasons that changed over the course of their time volunteering.

Organizational awareness of unmet needs directed where those organizations worked. Unmet needs did not seem to motivate volunteers at first because they were not aware of them but once they became aware, it was a motivator for them to continue volunteering. However, unmet needs were not the biggest factor or we would have seen them volunteering into perpetuity.

Conclusion

The researcher was unable to compile a comprehensive list of exactly how many homes had been impacted, the extent of the damage, and the current stage of recovery in each community despite talking to representatives of organizations that were currently, had previously, or were planning on engaging in recovery, and emergency management officials in

impacted communities. However, there was consensus from everyone the researcher spoke with that there were widespread recovery-related needs throughout East Texas as a result of the floods experienced from May 2015 to the most recent in June 2016. Despite the prevalence of needs in East Texas in August of 2016, there were few volunteers engaged in recovery. This was also supported by first-hand observations and documentation gathered through internet research (e.g., news stories of recovery volunteerism in the area, monitoring social media updates from recovery groups that had been working in the area, publicly posted minutes from long-term recovery committee meetings). The researcher is confident in saying that the recovery in East Texas has been characterized by a low level of volunteer engagement (e.g., few volunteers active in total and working at few locations) relative to the needs of the impacted communities.

This chapter has reviewed volunteer engagement in East Texas during recovery. The researcher observed minimal overall volunteer and organizational engagement relative to the number of unmet recovery needs across East Texas. The recovery volunteers included in this study were all working with an organization at dedicated volunteer sites on a number of recovery tasks. The volunteer sites were spread across affected communities. The following two chapters will explore the factors that explained recovery engagement. Chapter Eight will begin by reviewing the organizational factors related to voluntary organizations that were found to explain volunteer engagement in East Texas recovery.

CHAPTER EIGHT: ORGANIZATIONAL FACTORS

Interviews with informants and volunteers, the researcher's observations from the field, and documents gathered provided the researcher with significant evidence to suggest a number of factors that explained volunteer engagement in East Texas during recovery. This chapter will explain the factors at an organizational level that were found to explain volunteer engagement. Unlike in response, organizational factors, more so than the individual factors, influenced engagement during recovery. Every participant in this study was affiliated with an organization while volunteering. None of the participants had spontaneously arrived at volunteer sites, rather, they all had contact with the organization and were assigned to work at a specific volunteer site, at a specific time, and do a specific task. Since volunteer engagement was predicated on the organization they worked for, it is important to examine what led to organizations engaging in East Texas. The first section provides a brief overview of the organizational landscape. The second section discusses the goodness-of-fit between the organization and the needs of the impacted community. The third section addresses the components of organizational capacity. The fourth section reviews the role of an organization's integration. The fifth section discusses the logistical support provided by the organization to the individual volunteers. Finally, the role of volunteer sites in recovery is explained.

Organizational Landscape

As the researcher continued through the data collection process, it became clear that understanding the organizational landscape, or the numbers and types of organizations involved in the recovery, would be fundamental to understanding volunteer engagement. There were a variety of voluntary organizations involved in recovery efforts in East Texas. However, there were not as many currently involved as the researcher would have expected given both the extent

of need and how soon into recovery many of the communities were. Nonetheless, representatives of the organizations that were involved provided valuable insight to the organizational landscape. The organizations included here understood their role in recovery to be one that addressed the unmet needs of the individuals and households and communities, and meeting those needs that government and personal resources did not address. One explained, “after Red Cross left, and FEMA gave what they were going to give, there was still a need for us.” One of the informants explained their organization intentionally seeks to work in communities that others do not.

I think it’s really important work. This is one of the things that drew me to [this organization]. There are so many communities that nobody works in. Nobody worked in Detroit. They are not a community with a big political voice so no one cares about them. I think that’s what really drew me to it. We’re working in these low income communities that no one cares about. When I was in South Carolina there were so many trailers that got demolished and destroyed and many of the programs were in Charlotte because Charlotte has wealth. But it’s such a contradiction because these are the people who can afford help and are getting the help. Then there are people who really need help and can’t afford it. So I really like that [this organization] is in the nitty gritty communities that no one is helping in. They’re helping in endangered neighborhoods because they still need help regardless of if they’re “dangerous”.

The organizations involved all saw that they were filling a gap and meeting a need that others had not and would not be addressing.

The timing of the interviews happened to fall in what a number of organizations described as a waiting/ transition period. One informant explained their community was, “basically in the intermediate stage of recovery going into long term.” And, another explained, “we’re kind of in a limbo trying to figure out, who’s on first? Who’s on second? Who’s on third? We’re doing a lot of the work, and can’t see what’s happening next.”

In August 2016, individuals and households were still waiting to find out about insurance payouts and money from FEMA. This meant that some of the organizations who anticipated being involved in the long-term recovery had not yet committed or begun work because they still

did not know what the extent of unmet needs in the community would be moving forward. The needs of the community changed over the course of recovery in East Texas as more flooding caused further damages, as some needs were addressed, and as the community discovered new needs for which they had not previously accounted which attributed to this back-and-forth many organizations experienced. Despite relatively few volunteers and voluntary organizations there was recovery work being done at a handful of volunteer sites in the impacted communities.

Goodness-of-Fit Between Community and Organization

In the case of East Texas, some organizations first became involved in the response to the flood and then continued on into recovery. Other organizations only became involved after the response to the flood when the impacted communities entered into short-term recovery. Still others, waited to become involved or were considering becoming involved later, in long-term recovery.

The timing of involvement among organizations with a recovery-related mission was largely determined by when the needs of the community aligned with the programs offered by the organization. In other words, there needed to be a goodness-of-fit between the voluntary organization and the needs of the community. Obviously, an organization that only does rebuilding work will not begin operations until individuals and households have reached the point of needing to do rebuilding work. Similarly, organizations that have programs designed to muck and gut homes became involved as soon as possible after the disaster. Organizations with disaster missions did not stray from their pre-established programs. If they were a rebuilding organization, they waited for that to be a need and did not get involved with addressing other recovery needs. Local organizations without disaster-specific missions tended to engage before out-of-state groups as they were involved in the response first and then continued helping into

recovery. With no previous disaster experience or disaster-specific programs, they simply addressed needs as they came up in the community to the best of their ability.

At the time interviews were conducted with informants, some organizations were still waiting to become involved in the recovery. One informant said, “actually I just come out of a meeting with some of them [VOADs]. We support some supervision and equipment, but at this point we're not into the long-term rebuilds.” Other said,

We're telling them [survivors] that they have to find a case manager. We have gotten calls from people that have said, ‘oh, I've been flooded’. Like I said, we just don't have the bandwidth to do the case management. These people need more than just construction.

Right now we are looking at two sites in Texas that we will be doing long term reconstruction on. We work with the long-term recovery organizations that are emerging in those communities. We will do an unmet needs assessment. So we have teams that would go into those communities and do a house to house survey of any remaining needs and then make that available to the long term recovery organization. Then, we'll get involved in the long-term reconstruction.

One informant explained that their organization had finished helping with recovery because they had addressed the needs in the community that they had the ability to address, “We don't need any volunteers right now because everything that we do is being taken care of right now. We gave donations out, and we purchased sheet rock, flooring, and putty for [repairs]. We've given all of that out.”

The process of determining if and when their organization would engage in East Texas began by organizations considering what the unmet needs of the community were and if it was appropriate for their organization to address those needs. All of the organizations included here were cognizant of ensuring there was a goodness-of-fit between their organization and the community before becoming involved.

Organizational Capacity

Organizations considered a number of factors while determining if they would participate in the recovery and the timing of their involvement. Informants that worked for the voluntary organizations included in this study explained that their organization needed to have the organizational capacity to be able to become involved in the recovery process. This capacity was made up of three separate but interrelated elements – having personnel (staff/ volunteers), funding, and a place to base their operations. The extent to which an organization is able to be involved in recovery and for how long is largely influenced by their capacity. This capacity also influences what needs they can address, how many needs they can address, where they can address needs, how many volunteers they can host, how many volunteers they can train, and more. When an organization had more capacity they could be more involved in the recovery and for longer periods of time.

Organizational Capacity: Personnel

The organizations included here all needed both staff (or individuals in leadership roles) and volunteers to be able to assist in the recovery. Organizations needed to have enough staff or volunteers in leadership positions to recruit, oversee, train, and manage volunteers and run the organization in Texas. Informants explained the balance, roles, and relationship between staff and volunteers.

We are super gung-ho about using volunteers because it allows us to leverage our capabilities so much more... I would probably hire more supervisors and then with that take on way more volunteers. In someplace like East Texas the addition of 5 or 6 volunteers each day I think would have meant providing direct clean up assistance to an additional home. That's, depending on the size of the house might fluctuate a little bit but most of our teams were like 5-7 people given the size of the homes we're working on. So, if I had another skilled site lead I would then want 7-10 more volunteers to help her do the work.

It [having volunteers] won't make or break our deployment but it certainly is endlessly on our radar given our model of running volunteers as a labor force. There are other agencies that will just run their internal volunteers whereas we will oversee, supervise, train anyone that wants to volunteer. So we know that if we're going to Iowa and the population of the town destroyed is 300 we're going to have to get really creative to come up with a labor force. The flip side of that is sometimes we have 300 volunteers in a city of 2 million. It's always on our radar simply because I can't do the work alone but it by itself wouldn't determine if we deploy.

If you're doing recovery, that's more skilled work. That requires people. You don't need a paid position to be a team leader for response. You don't need a paid position to tear down stuff. We have a team leader just to make sure everyone's safe and stuff like that but for rebuild you need people who are experienced with putting up dry wall and rebuilding. So those are paid positions. That's the difference, you have paid supervisors in rebuild but you don't need that in response. But you need a team lead to teach volunteers how to do those things.

Having volunteers and the staff to manage them influenced what an organization could do, how much they could do, and when they could engage. The importance of having adequate volunteers meant organizations spent a significant amount of time working to find volunteers.

There were three ways volunteers came to work with the organizations included in this study. Most organizations had a pre-existing membership base that they were able to mobilize or pre-existing relationships with partner organizations that provided them with volunteers.

The majority of our volunteers in Houston came through our internal process of finding volunteers by reaching out to our partners. And, there was a [faith] community there that gave us volunteers as well.

We have a database of about 3000 volunteers. They are categorized in terms of the expertise that they have. We put teams together that work on these long-term rehabilitations sites.

We coordinated helpers that came in from out of town. We worked with another synagogue and another university that sent in helpers from out of town and we deployed them. They connected with us through the various religious organizations. They asked the Synagogue what they could do and they said, 'you guys are organizing this, you tell them what they can do'. So we had a group of about 20 youth from New York come in and about 10 from Ohio.

Then we send out a huge email blast. Anyone who volunteers with us and fills out an application goes in our database. We send out newsletters. When a disaster happens we do a mass call out through our email list.

They [the partner organization] were one that kept calling and they felt like they were going to have a large turnout of their church members that were going to want to help but had no experience, so they were asking us if we would partner with them and come in and bring our team leads into lead their team.

Only a few organizations had volunteers or partner organizations who found them on their own accord after the flooding had occurred. In other words, it was more often the case that the volunteers and partner organizations had a pre-existing relationship with the organization.

Informants explained how these volunteers found their organization,

Like I said some... just came in through our website. We didn't have anything specifically on our website about the floods. They might have just looked up rebuilding or something.

They usually contact us. We'll post on our website when we're doing an event that a church group can come help us, or a school group, and then they just contact us. We don't really go out recruiting. They start looking.

Again, new volunteers reaching out to organizations during recovery did not occur that often.

Relatedly, organizations did not report having spontaneous volunteers show up during recovery as had occurred in response. One informant summarized,

At first, like with any disaster, when it first hits then there's always going to be a bigger outpouring of people wanting to help. As the time goes on, then it's kind of forgotten and people move on with their lives. At the very beginning, we were seeing more people just showing up every day wanting to help. Now, it's more the ones that we're recruiting and they're coming through our volunteer coordinator to be scheduled and not just showing up.

Two informants noted that even if they had spontaneous volunteers show up, the individuals,

“would have to go through a vetting process.” Another explained,

We don't take people that just walk up. We do have church groups and school groups that are organized. They contact us and we bring them in to help us with the unskilled labor, not running chainsaws, not running power washers. They're cleaning up debris.

While an informant from another organization said that if spontaneous volunteers were to show up, “All they have to do is come in, fill out our application and our waiver” and they could volunteer.

Key informants noted though that they liked having repeat volunteers. Repetitive volunteers were beneficial to their organizations because it lessened the amount of time and resources needed to recruit and train new volunteers.

Our dream is to have repeat volunteers. Both in the sense of going on totally different disaster responses as well as internally. When we're in Houston then we try to get them to come out more times when we're in Houston. It's a combination of both I'd say. The honest answer is that there are probably more one time volunteers than repeat performers.

One informant explained the amount of effort it takes to sensitize volunteers working at a volunteer site,

One of the biggest challenges is trying to describe to them the work that we do. Sometimes it'll be the first time they've come to volunteer at a disaster site. It's not just stressful on the community and the homeowners. It's stressful on us because we're dealing with the homeowners one on one and moving their possessions. It's hard to explain to the volunteers, this is what we do. We work with the homeowners and say, 'this is too moldy. You can't keep this. You can't clean it.' So it does get pretty emotional. So, trying to explain to the volunteers the type of work we do.

When organizations needed more volunteers than their membership base and partner organizations could provide (and since volunteers were not showing up on their own), they needed to recruit volunteers. When organizations still needed or wanted additional volunteers, and they had the staff capacity to do so, they worked to actively recruited volunteers.

Organizations used a number of tactics, including accessing volunteers through other organizations, advertising throughout the local community, social media platforms and other social networks.

We've done a lot of outreach ourselves, we've used every resource that we can think of including posting fliers, doing newspaper things, and everything trying to get people to

come out and join up with the efforts that we're doing. We'll get a handful there but it's not been any large number and it's not been a consistent type thing.

We'll have some of our own volunteers that are going to be rotating in and out, and we're still working on trying to build up a larger base of numbers. We'll be just working with whoever we've got on our team and whatever local day volunteers that we are able to recruit. We do have some groups coming in here and there. We had a church group come in from Michigan that joined us for a week or so, and we just had another small group that just left us a couple days ago. We work with a lot of the corporations and other groups that are outside of Houston to try to see if we can get them for a short period. Our numbers fluctuate quite a bit up and down. Our base is up to about 40 some days and then it goes back down to 15 some days. It just goes up and down.

Yea, we'll go in the gas stations here and people will see our shirts and say, 'hey, you're with the volunteer group. Can we come out with you?'. It does make a huge impact when we go out. We've had to advertise that there is an organization here doing disaster relief. We've been reaching out to local churches as well. They have a big variety of people.

So recruiting is interesting. I've only been here for 5 days. As of right now it's all phone recruiting until next week when I'm going to go out into Houston and actually hand out flyers. What I try to do, and all volunteer coordinators are different, I try to call community service programs so that instead of getting a bunch of residential volunteers, which we do want as well, we get a big group that can commit to one or two days. And, also that's another group then that will get to know us and spread the word. So that's what I'm doing right now. I also want to get the residential from Houston or even international students that want to come to America for a certain amount of time. I think I also have a good connection with folks from out-of-state just because of my background. So, getting folks who are hardworking, even if they don't have experience, to come.

We do religious based communities. We're not biased. It doesn't just have to be Christian. So we do religious based communities. We do fraternities and sororities. We look up organizations that do community service. We look up the fraternities that have to do community service. Not everyone has access to computers or even if they do they might not know what they're looking for so providing people the opportunity even if they have no experience or if they want to do something new. We want to give presentations to schools and churches. We have a really good church here that's been helping us out.

In Texas, there was still such a low volunteer turn out that one organization even tried to entice individuals from out-of-state to volunteer in Texas by moving them to the top of waitlist to go on their organization's international volunteer trips. A volunteer explained why this was an appealing offer,

Definitely, they [the organization] have no problem getting volunteers internationally... Everybody wants to go international. We say it's sexy and so everyone wants international. Right now we're in Fiji, Ecuador, and Nepal. Each one of those have a long waiting list of volunteers waiting to get in. Everyone wants to go internationally but no one wants to stay here in the U.S. and work.

Recruiting volunteers was a significant task for the organizations that had major implications for volunteer engagement.

The organizations that recruited volunteers were aware of the motivations of their volunteers and integrated those motivations into their recruitment strategy. They appealed to potential volunteers by telling them about the needs of the community, emphasizing the opportunity as a chance to travel, and incentivizing the opportunity by offering free accommodations. Ultimately, it was critical for organizations to have adequate staff and volunteers in order for their organization to engage in recovery. Organizational capacity was also influenced by how many financial resources an organization could dedicate to the recovery in East Texas.

Organizational Capacity: Funding

Organizations varied in the amount of funding needed to participate in the recovery process depending on the type of needs addressed by their organization and their approach for addressing that need. For example, an organization that did rebuilding work and provided accommodations and travel for their volunteers required more funding than an organization that focused on distributing donated goods by using local day volunteers without no need for accommodations. Regardless of how much, they all needed financial support to conduct their work (e.g., funding for work materials, accommodations, staff salaries, recruiting, overhead). Informants explained how their organizations were funding their involvement,

We also got two grants. One through our national office Bank of America and one through Chase to do repairs on the homes from the floods... Our national offices have a relationship with Bank of America and do several different programs with them. So when Bank of America was aware of the floods going on here they offered funding to help. Then Chase Bank is a partner of ours anyway so when they saw what was going on they said, 'oh, can we give you some money for the flood?' We said, 'yes! Please!'

I think an important question is how long an organization is willing to commit to a recovery process. There's a lot of money that's generated for disasters and organizations, I think, are often competing for sort of that initial response. A lot of resources are focused on the immediate needs and not enough resources are focused on the long-term needs.

I do think it's harder to raise money for domestic disasters compared to some of the international ones. When people will support our work, they'll say use it for a specific disaster but sometimes they say, use it where you need it the most. That's been helpful in terms of generating resources for our domestic programs as well including Texas.

It depends on how long we're slated in the budget to stay there. Here there is going to be work that needs to be done after we finish the response here. We'll take those cases and we'll hand them over to the local groups. But our budget only allows us to stay here so long. For a response it costs about \$20,000 a month. That covers our housing, food, staff, the vehicle maintenance, materials for the site, gas. It's about \$20,000 a month... If we go into two months of our own budget, then it's going to start to have an effect on the next response we have. Luckily, we found two foundations there that both of them gave us money for a month each, and so that made us be able to stay there for three months and we said we'd stay until the end of August.

Organizations used different approaches to raising money but funding was not guaranteed. The organization's staff had to work hard to secure their organization's funding.

An informant whose organization had already ended their operations in East Texas said, "if I'd had unlimited funding I probably would have stayed longer." Similarly, another explained that their organization wanted to help but did not have the funding, "I told them I wanted to do something but that I didn't have any resources to help them." Clearly having the necessary funding was critical for organizations to stay involved. Two informants connected together the issue of funding and volunteers by explaining how a balance between the two made a deployment more likely.

What we say within our organization is that every response has to be like a three-legged stool. You have to have all three legs for the stool to be balanced. There has to be a need in the community to make a response, there has to be the volunteers to make the response, and there has to be some sort of funding to make the response. We will operate a lot of times on two of those three legs and just be a little bit wobbly and not where we want it to be, but we'll make it happen. If we're down to just there's the need but there's no volunteers at all and no funding source to keep us there because it does get expensive after a while. However, we usually try to work it, if the need is there, we try to find a way to make it happen even if it's on a smaller scale.

So I think the key is, since it's summertime right now, schools about to start up, it's crucial that we advertise sooner rather than later on the volunteer opportunities. We need to do it ahead of time, before we get here. Be like, 'hey starting in October we're going to be doing a rebuild in Texas if you want to volunteer'. Rather than being like, 'okay, we're here where are the volunteers?' We need to push it out early but a lot of times it doesn't happen that way because we don't know until then. We can't advertise and say we're going to be here and then have the budget fall through and not come.

When organizations had the funding to sustain their operations they were able to engage in the recovery process. In addition to maintaining both volunteers and funding organizations also needed a place to base their operations.

Organizational Capacity: Base of Operations

The final part of an organization's capacity is having a location from which they can base their recovery operations. Some local organizations included in this study were able to use their normal facilities to base their operations. However, two of the local organizations in this study were flooded themselves. They had to simultaneously clean out and rebuild their facilities while still helping their communities. This dual-need put an extra strain on their staff and funding as compared to the other organizations. One informant described her organization's situation,

They gave us an apartment so that we can have a hub there. It's a little townhouse. So we'll be setting up there. The carpets were cleaned out. You can tell there's some mold in there. It'll work for now. We're trying to get paperwork in and emails out to do a call for action to raise funds to be able to get office furniture there.

Her organization was working to set up their new office while simultaneously helping the community.

Out-of-state organizations all needed to find a space to work from once their staff arrived in the impacted area. The organizations in this study typically partnered with a local group or church who provided facilities for them.

We went back to the church where we are and we said we're able to extend and stay here to help the community. Are we able to get an extension to be able to stay here with the base? Setting up a base is like setting up a small city and it's not real easy to pick up and move it. The church said yes and they'd love for us to stay, however, the last week of August they had something already planned for the church and so we could stay until the 24th. I imagine the 24th will be our last day there just because it's too hard to move for one week.

The type of facility an organization needed depended on the model of the organization, what tasks they were working on, how many people they had, and the length of time they planned on staying. Some just needed a small office with internet while others needed a place where staff and volunteers could live for months. Regardless of the specific requirements, having a place to base their operations was important to all of the organizations.

Recovery volunteerism was found, in this study, to be heavily guided by organizational involvement, the capacity of the organizations that were involved is an important factor to consider in some depth. Organizations sought a balance between these three elements of capacity in order to engage in the recovery process, though all three elements did not necessarily need to be present or fully present for an organization to participate in a recovery.

One informant summarized how the elements of their organization's capacity influenced their decision to engage during recovery,

It depends on the funding, the volunteers, and the staff. Can we get the staff there in an amount of time to train the volunteers? Can we get the funding and the budget approved by this time? Who are going to be the funders? Where are we going to stay? There's multiple different things that need to fall in place.

When organizations had adequate staff, volunteers, and funding and a space to work that met their needs then they were able to stay involved in the recovery longer, address more unmet needs, and engage more volunteers.

There was one issue that informants kept bringing up in interviews that they said was directly affecting their engagement. Organizations that engaged who had a disaster-specific mission were also contending with what they called “disaster fatigue”. Some organizations were working in multiple communities throughout Texas. One informant said, “I currently have 10 separate operations in play [in Texas].” While another listed the communities they had been working in, “I have a really big list. I actually have it in front of me. It would be Dallas County, Orange County, Newton County, Wiley, Copperfield, Hawkins, Rosenberg, Texas, Conroe, Texas, Brazoria County, which is Brazoria.” Another reiterated that it was unusual to see so many disasters in the area, “I know that you see all of these disaster everywhere, this is unusual, it’s unheard of to have this many back to back.”

This suggests, volunteer engagement in East Texas was not only influenced by the unmet needs in impacted communities in Texas but also the unmet needs across the country and world. A number of the organizations included in this study were voluntary organizations that work regionally, nationally, and even internationally. They were involved in multiple disaster recoveries simultaneously which impacted the capacity of their organization. In other words, the overall need of their constituents influenced the engagement of their organization and volunteers. The informants explained how being involved in multiple disasters changed the capacity of their organizations. They reported being under pressure because of the high number of ongoing disaster recoveries.

We do ongoing recruitment but this fall we'll be at about full capacity. We'll have 6 sites going. We have one in Taipan, 2 in Texas, 1 in Pensacola, 1 in West Virginia, and 1 in South Carolina. And, the fires in California as well.

We feel like we've done... there's still some ongoing work and the LGTR wouldn't mind if we stayed longer, they'd like it if we'd stay longer. So, there are ongoing needs that we need to shift to some of the other sites. When we do 6 sites that's more than maxed out in terms of being able to staff those sites with volunteers.

A lot of people pulled out of Texas to go to the new disaster which was West Virginia. I received numerous calls to say we just can't do it from West Virginia to come there, but we recognize that the need is still in Texas and if we pulled out there would be no one to help them at all, and there were plenty of other groups going into West Virginia so I made the call that we just couldn't stretch our resources any further than what we can stretch them and we we're going to stay put in Texas and try to make sure that we met all the unmet needs that we could there.

We did not launch our efforts yet. What we did do, because we had simultaneous deployments in other parts of the country, we only have the bandwidth to be in so many parts of the country at once. So we were in St. Louis, Louisiana and other places responding.

In April when they flooded again we received some calls from there asking us to come back in, and that time just started up the Louisiana flood response and also Missouri so we weren't able to come in. However, I closed Missouri down when they got more flooding in May and they called me again. We went ahead and opened up our response in the Fort Bend county area again.

Informants thought there was a disaster volunteer fatigue nationally, but especially in Texas.

Also, one of the things that we've found in Texas, because Texas has had so many disasters, primarily the flooding, that the number of spontaneous volunteers has really gone downhill, and now it's been the matter of working to get some more. It's always balancing how we can get them into the system and how we can get them involved. **Do you know if that issue is just unique to Texas, or are you aware of other places where there's been this disaster fatigue with the volunteers?** Yeah I think so. We cover Louisiana which has had a few disasters too in the last couple of years, so we're seeing similar things there.

One volunteer explained how her volunteer group, who had already made one trip to Houston, was deliberating about where to go for their next deployment, "We're considering it. We're considering Houston, South Carolina, and Louisiana."

For further context, these interviews were conducted in August 2016, before the 2016 Baton Rouge flooding and Hurricane Matthew. There was already so much widespread need across the country at that time that organizations had to choose which communities they could help. Not only did this influence where, if, and when voluntary organizations engaged, but also it seemed to direct where volunteers who were looking for out-of-state volunteer opportunities end up working. They were constrained by where those organizations decide to work, which was a sentiment reflected in interviews with participants.

The organizations identified the frequent disasters as “disaster fatigue” and the low volunteer turn out as “volunteer fatigue”. The frequent disasters around the country put a strain on how many volunteers they could engage and how much money they were able to raise. This fatigue is another reason that organizations gave for their low volunteer turn out numbers.

I think it's a combination of a couple of things. One is as we're seeing across the whole U.S. and not just there is what we're tagging as disaster fatigue. Everyone is tired. It's just not let up anywhere.

We've gotten a volunteer fatigue, because we've been going so long. We had other states come and help us just because we were wearing our volunteers out.

Because Texas has had so many significant storms and flooding in the last year and a half, I think there's getting to be some volunteer fatigue. That there's just so much out there to do, or that they volunteered a number of times and that's the extend of the commitment they can make. That makes it more difficult.

And that [disaster fatigue] is what is what's happened in this county. They were very active at the church level during the March floods and the April floods and they were starting to wear themselves out so when the May floods came, which was worse than the other floods, I got, “look, we're done. We've done our good deeds. We've got to get on with our own lives”. I don't push them.

No, I think just the desperation of needing more of them is the big thing. I don't know that it's unique. It's a repeating thing that we're seeing in the last couple of years across the United States, but I can't think of anything unique about it. The heat is pretty unique but as far as for the volunteers, I think that they want to help just like every other community does. It's just not been the best circumstances for them to do that in. They've been hit over and over and over, and I think everyone is just tired.

Many of these organizations were addressing numerous disaster both within Texas and in other parts of the country so their overall organizational capacity was strained in many cases.

Another rebuilding organization who was actively engaged in rebuilding work associated with flooding in 2015 had not yet become involved in rebuilding work for the 2016 flood. They had a number of reasons for their decisions. First, they were not yet engaging in 2016 recovery because their programs/ mission were related to rebuilding. They assessed that most individuals and households who would eventually need their assistance were not yet at that stage in recovery because they were still working through their insurance and FEMA paperwork. Second, they were concerned about their capacity to be involved. Their personnel and funding were already tied up working to address the needs associated with the flooding in 2015. However, the informant was clear to say that did not mean that they would not become involved in the future as their capacity and the unmet needs in the community changed.

Some organizations were waiting to determine the extent of their engagement until they had a clearer understanding of what the unmet needs in the community would be, how much funding they would have, how many volunteers they anticipated being able to mobilize, and had a base of operations with which to work, while others became involved with varying levels of confidence of each of these components. These organizational factors can either facilitate or inhibit the extent of volunteer engagement in the impacted community. When organizations became involved, they brought volunteers with them and provided accommodations for individuals who were interested in volunteering. As the researcher found no individuals volunteering that were not associated with an organization it would seem that having voluntary organizations involved was a primary, if not the primary, factor in volunteer engagement in East Texas.

These organizational factors influence individual volunteers and conversely, but less so, individual volunteers influence organizational factors. In East Texas, where there was limited volunteer involvement, organizations struggled to meet the needs of the community. In other words, they were not able to work at full organizational capacity because they did not, consistently, have enough volunteers. Some organizations had funding and staff that could work to recruit more volunteers, while others did not and were reliant on volunteers finding them. Each of these factors fluctuated based on the circumstances of the community and the organization throughout the recovery. Organizations reported monitoring the unmet needs in East Texas until they had the capacity to be involved and felt their programs/ organization could address the unmet needs. Organizational capacity was facilitated by the integration of the organization.

Integration

Partnerships among the organizations working in East Texas influenced organizational engagement and, in turn, volunteer engagement. The connections that an organization had in the community can be thought of as their integration. This is similar to integration as discussed in response. The primary difference, of course, was that in response it was the integration of the individual that explained volunteer engagement whereas it was the integration of the organization in recovery. Organizations were integrated into the impacted community, with the local disaster organizational community that formed in recovery, and/ or with the national disaster organizational community. In this study, an organization's integration seemed to evolve throughout recovery as organizations created new partnerships with other organizations. It seemed that as organizations increased their involvement in the community, so too did their

integration increase. And, since the timing of organizational involvement varied in Texas, the integration of each organization varied.

Each organization that became involved in recovery had some connection to other organizations that were also working on recovery in the community. Some organizations were connected before the disaster while others made the connection during recovery. In the case of East Texas, some national disaster organizations were familiar with the impacted community prior to becoming involved in the 2016 flood recovery because they had previously participated in a recovery in the same area.

We worked with them last year and we worked with them this year as well. We're actually sharing our list of work with each other. We have a good partnership with them.

We worked with them both this year and last year and because of the positive relationship we created last year. I mean it was still flooding and I'm on the phone with their national director.

Oh, the coordination was much improved. It really, it was one of those lessons learned. Instead of it taking 7 days for them to have a meeting and then having it go from there. The next day there was a meeting and a lot of us had already known each other from the 2015 floods. So it was a lot of the same people... You know, the first thing that happened, before we even got to the meeting was that a lot of these people reached out and said, 'how is your neighborhood doing' and then when we got there we went through the specifics and were able to help faster... It was much better put together in 2016.

Last year the flood Memorial Day flood, we had a lot going on and they just came up to us, and said, 'hey, we have people that want to help'. What is it that we could do to help? We just gave them some houses, some places they could go and knock on doors. What she did, since she had that task last year, she already knew what was needed and she came back and said, 'okay here we go. We're here. What do we need to do?' and she just got to doing it.

Partnerships among these disaster organizations were, of course, not unique to East Texas. One informant explained how many of the same organizations that were working together in East Texas had also worked together in other disasters,

For instance, in Detroit we worked closely with [disaster organization]. They would provide us with volunteers and we would provide them with volunteers. Towards the end

of our stay, for the last 8 months, we and [the disaster organization] were the only VOADs in Detroit continuing to work when there were over 3000 homes that hadn't been assisted yet. Our case management was provided by [a second disaster organization] so they provided all the cases for us and then us and [the disaster organization] would go in to do either the response or rebuild?

In some cases, these were long standing relationships between organizations. The connections that organizations had with each other influenced the engagement of the organizations and their volunteers.

One way that connections to the local community were important was in the case of non-local organizations who were deciding whether or not to deploy to the impacted community. The national disaster organizations noted that it was important for them to be invited into the community rather than self-deploying. Organizations were invited either by the local government or other community members and organizations.

Yea, so what we don't do, which I think is as important as what we do, is the fact, something called self-deployment to a disaster. We don't do that. It presents a whole host of issues in and of itself. What we do is communicate with both state and local emergency management as well as the VOAD.

Okay, what we do is work as closely as we can with different emergency management divisions whether it's the state VOADs, to help determine if outside assistance is even needed in the first place. If it is determined that the community can't handle the damage within the community then the greater the distance they are from having that capacity, we consider going in. So, I'd say it's split 50/50 or so between an emergency manager calling us up and saying, 'we need you' or us just saying, you know reaching out and letting them know we're available if they need help and them saying, 'yes we do or no we don't'.

The other angle we take given our Jewish affiliation as an organization. Certainly the majority of the places we go to do not have a Jewish community within them just because of nationally how big that community is to begin with. But if there is a Jewish faith-based community we will specifically reach out to them as well. You know, East Texas did have a pretty significant Jewish population. Detroit was another that we responded to as well. We connected with local and national leaders to see if they needed assistance so we would plug in there as well.

When organizations already had a connection to the local community this process went more quickly than when the organization had to spend time calling around the impacted community. One informant discussed the process of entering a community when they did not have any connections,

My wife and I work as a team. We are volunteers ourselves, and we are regional managers for the Gulf Coast states. It's our responsibility to get to know the needs of the area and link disaster response services with those local needs. We spend time on the ground locally after a disaster, and let the local organizations that are working in recovery know what's services we have.

Organizations from out-of-state had to find connections in the local community. Though the out-of-state organizations may not have had connections to the local community they were familiar with the other national disaster organizations that deployed to East Texas. They often used these connections to help integrate themselves into the local organizational community. An informant explained how their organization first got started in Texas after the flooding, “We met with some local officials out there spoke with some local organizations, started partnering up with them, getting jobs in the queue and started sending teams out.” Another explained,

As hard as we try to get every community in America to know about us ahead of time a lot of times just the truth of the matter is we're introducing ourselves to these communities after disaster strikes. Sometimes they bite and sometimes they don't.

Connections with other organizations, particularly local organizations, were especially important for groups that were looking for a base of operations. The organizations included in this study who needed to find someplace to work from were able to do so through the connections they had or made with other organizations in the community. This helped the organizations establish themselves in the community.

Having connections to other organizations also helped organizations identify unmet needs in the community. Some organizations spoke about sharing information related to unmet needs

with others. Sharing information like damage assessments helped move the organizations involvement along. The sooner an organization has accurate information about what the needs are in the community, the sooner the organization can direct their volunteers to address those needs. Knowledge of needs also influenced some of the organizational factors including the use of personnel and funding resources. Organizations could save staff time and money if they shared damage assessment information with other organizations. It also influenced where volunteers were directed, when, and what tasks they conducted. Unfortunately, while the majority of the organizations representatives understood the value of sharing information, they found it did not actually happen on a regular basis in East Texas. One informant summarized:

I mean I haven't been doing this my whole life but I've been doing it long enough to know that some NGOs, and I'm sure they could say the same of us, some are ready, willing, and able to come together for the common good. Some just have a culture of doing their own thing and playing in their own sandbox. So, that is a very constant dynamic no matter where we go. At the end of the day we're all nonprofits. You know, we don't have to report to anyone really. No one is going to fire us if we're not working together. There's no real accountability or way to hold some of the NGO's feet to the fire. If they're just going to go help people and do their own thing. No one is tracking, or can track them down and tell them not to. What we try to do is, you know, if we can share our knowledge and tools to leverage to help more people, we should try to do that.

A few organizations in this study spoke about sharing volunteers with other organizations over the course of their involvement in East Texas. When one organization had more volunteers than needed, they would send them to work with another organization for the day that needed additional volunteers. Informants explained,

Yea, I certainly did. Actually, I got connected to [another organization] through Facebook. I saw the good work happening out of [the other organization] in one area and I reached out to the person whose name was being repeated a lot... She's an extraordinary activist in her community. I said, how do we work together? Again, if we have an opportunity to bring healing in a social context that has nothing to do with a disaster, I think we have an obligation. They ran the smoothest most effective donation centers ever. They put a bunch of engineers in charge of running this thing. It was great. She would go over, we'll have donations at such and such a place on such a day. I was working out of a

particular church. I said, that is great that you guys are there. If you have too many volunteers, I need them at [the church] because we need to work in this neighborhood.

Now and again we had too many volunteers but in those cases we would just widen our net beyond our area. So, really it was less of a problem. We just sent them to other areas that we thought would need help. And spoke with the people that were organizing. That wasn't really so much of a problem.

Certainly the Google documents were the way that we coordinated within [the community]. For people outside [the community] I would refer them [to other organizations and churches]. I would give them the information directly. Crisis Clean Up was good about that too because that allowed all the groups to say we have volunteers here where can we send them because we don't need them here right now.

Organizations in the case of East Texas were not frequently sharing volunteers, because there was an overall shortage, but when they did find themselves with extra volunteers they utilized their partnerships to share them with other organizations.

Informants also reported putting on a few volunteer events in the community. These were described by the organizations as being "volunteer days". Multiple communities in this study hosted such events throughout recovery. These days came about when organizations decided to partner together to share resources and volunteers. Participants described these volunteer days,

We did have a volunteer day. Actually we had two. One of them was a [service day] that had already been scheduled. They were able to go over and do some things. I know they moved a refrigerator that had floated away. There were some of them that moved some steps. We were able to clean out one house of a retired nurse. Her mother had lived in this home. Well, the house was flooded. I mean, the house is going to have to be destroyed. It's in pretty bad shape. But she was able to get them to go back in and get a bunch of pictures and things like that. Which took an inordinate amount of time but it was a good exercise for them because you know, they're just doing community service.

Oh, yes. I got a hold of a gentleman here in town who provided like 100 hamburgers. We just put out that we were having a day. [A national disaster organization] came down that weekend. We paired them with the volunteers that came in. Some of them were from out of town – El Campo, Houston. We paired them with [the disaster organization] because they actually knew what to do and how to do it. And, we cleaned out about 13 houses. We had a meal for them, all donated. That would have probably been a couple of weeks after the flood.

But, they have been bringing in volunteers from different places to do some repairs. We did have one group in January from this year. They came from a school in the Northeast, I think it was New Jersey... They knew there were the floods down here so they contacted [a local organization] who said, 'yup, come on down'. Then I can also tell you about Race to Rebuild. We did use that group. We partnered with that group to do a couple different homes... So anyway, that was some of the... Race to Rebuild, what was great about that, Race to Rebuild was, they came in and they worked on two houses. It's only a one-day thing but they did bring in people from [a national disaster response organization] which are Veterans that do disaster relief and they also brought in Team Red White and Blue, and we brought some of our own volunteers. Then they had some people that were athletes that were going to be doing Iron Man the following weekend so that was good.

These days were possible because a number of different organizations were able to come together to plan and facilitate. Again, there had only been a few of these volunteer days in these communities during recovery, but when they did happen they were successful.

In the case of the organizations in East Texas, the number of staff an organization had determined the number of volunteers they could host and train. The amount of funding the organization had dictated how long they would be able to stay, where they worked, how many volunteers they could support, and what needs they could have volunteers address. Without a base of operations, organizations would not have had a place to work from or a place for out-of-state volunteers to stay. Though the factors discussed all directly influence organizational engagement it is relevant to explore them because in recovery, as volunteer engagement is so directly influenced by voluntary organizations. These factors are key to understanding the overall volunteer engagement in East Texas during recovery. The final organizational factor that was found to explain volunteer engagement was logistical support.

Logistical Support

Once volunteers were given their assignment by an organization they needed to get to the volunteer site in recovery, volunteers only traveled to the volunteer site once they were given an

assignment. Some organizations arranged transportation for their volunteers. Other volunteers were responsible for their own transportation to the base of operation and/ or the volunteer site. This was primarily the case for local volunteers. Some non-local volunteers were responsible for their transportation to Texas and then had transportation arranged for them once they were in the state. Whether a volunteer would need transportation or have it provided was decided by the organization the individual was volunteering with and was not a decision made by the volunteers, regardless of whether transportation was provided or not.

None of the local volunteers included in this study required overnight accommodations because they lived close enough to the volunteer sites. However, the non-local volunteers did need overnight accommodations. When accommodations were needed by volunteers, the organizations they were associated with made the appropriate arrangements. All of the non-local volunteers included in this study stayed at various churches in or near the impacted communities. In all cases, these arrangements were the product of multiple organizations working together to find a space for volunteers to stay. Individual volunteers were not directly involved in these arrangements, they simply stayed where the organization arranged for them to stay. One informant explained,

Yes, we set up a base. The way that we operate is we do not charge anyone to come in to help. They are on their own to get themselves there and home, so once they get to wherever our response is, then we provide the place for them to stay. We provide them their food, their training, their equipment, their team leads, and their jobs. We provide everything for them once they get to the site. We've been at the regular base, that is where they eat and sleep and shower. We have our own shower trailer. The church had a shower for males, a shower for females. With a base of 40 which we have gotten up to, it's not enough showers. Everyone comes in hot, ready to get in at once. We pulled in our own shower trailer there at the church and we have three shower units in that, so that gives us a total of five showers. We set up the whole base. We give them a place to sleep, shower, eat, whatever. One thing about most of the responses we have now with no exception whatsoever is the churches. Although they've not been able to have this number of people come out [to volunteer], they have gone online and set up a form for different churches to

sign up on. So they have been providing our meals every night for us pretty much. Different churches will cook and bring the food in for us and eat with us and everything.

Just as individuals worked to identify organizations that would meet their needs, organizations worked to cater to the needs of volunteers.

One informant summarized how their organization catered to the interest of individuals by offering an opportunity to help others, travel, and structure their organizational model around meeting the needs of the volunteers,

I think also that the fact that we provide housing and food, it's so hard for people to travel and commit to certain things when it's unstable. You just know that you're going to be housed. You know that you're going to be fed. You know that you're going to have proper PPE. We are 100% making sure that you are safe. That's our main goal. We want you to do the work and we want you to do it well but we want you to be safe. I think that's what attracts folks to us. We have a pretty good name. We travel often. We're in Texas and Fiji and all these places. That's what I hope is attracting folks.

Another informant explained how this evolved over the course of recovery,

Yes. In the two weeks after a disaster everyone is working out their emotional issues. Their adrenaline is still pumping, they're like, my community is affected! I want to help! We're going to have everything done in two and a half weeks! And then you go into the long-term recovery and then you have to make it a task oriented request. Your volunteers in relief just show up on Saturday at 8am and I'll have coffee and donuts and then tell you what to do, they'll live with that. At this point they want to know what do you want me to do, how long do I need to do it, what tools do I need to bring, and for how long am I committing. So I went from show up at parkway united Methodist at 8am to we're training demolitions without heavy equipment at 7am on Saturday. I need you to bring close toed shoes, be prepared for demoing 2 or 3 houses. They want to know more of the scope.

In recovery, as compared to response, volunteers expected to see stability within the organizations they volunteered through. Of course the ability to mobilize volunteers was greatly influenced by the capacity of a given voluntary organization.

Conclusion

In East Texas, the only places the researcher found volunteers was where voluntary organizations were working. The engagement of organizations in recovery create opportunities for individuals who want to volunteer. Without voluntary organizations active in the impacted communities it would seem that individuals would not have a pathway to volunteer. When organizations thought there would be enough volunteers, they were more likely to become engaged. In fact, in recovery, organizational factors seemed to have a greater impact on volunteer engagement than those factors related to the individual and community. Next, Chapter Nine will address the few factors at the individual and community-wide level of analysis that helped to explain volunteer engagement in recovery.

CHAPTER NINE: INDIVIDUAL & COMMUNITY FACTORS

Though factors at an organizational level explain much of volunteer engagement in recovery there were a number of factors at an individual and community-wide level of analysis that were also found to be relevant. This chapter will review these factors. The first section will address the individual factors. The second section will address the community-wide factors.

Individual Factors

A few factors at an individual level were found to influence volunteer engagement. The first section addresses the initial motivations of the volunteers that inspired them to become involved in the recovery. The second section addresses volunteer availability. Finally, the goodness-of-fit between each volunteer and a voluntary organization is discussed.

Individual Factors: Initial Motivation

All participants reported that they were highly motivated to volunteer. Participants reported that they were initially motivated to volunteer for two primary reasons – to help others and/ or travel.

I just love helping people in need. It's just my, everybody talks about their career or what they want to do but this is all I've ever wanted to do.

You want to do something for people who have less than you and who are in need.

The best way for me to travel the world for free was beginning my service in AmeriCorps. AmeriCorps is really what stemmed me towards volunteering.

Having been born in Texas and not being back for 10 or 15 years, I thought this would be a great way to do that.

Informants confirmed that the individuals who volunteer with their organizations were looking to help others and were interested in traveling.

To be a volunteer, you have to have a passion for people. Everyone that came out to help had a passion and love people. It's a calling I believe it to volunteer because everybody

doesn't think that they are supposed to volunteer. They think they supposed to get paid for everything that they do and I'm finding that out now. Yeah, it's a calling and it's a passion.

What I'm finding from the type of person that does full time volunteering is they tend to be the same people that work in volunteer fire departments, volunteer with the Red Cross, former service personnel, and they need that purpose driven, that need gets met doing this work. I see everything from young people who really have a desire to change the world. I see retirees that want to be vital in the world.

There's obviously a faith component to this. People want to live out their faith so they feel like service, serving a community that has been hit with disaster is a way to do that. They think it's a good use of their skills. Our organization has a really strong, healthy reputation within several denominations. We do attract volunteers more broadly, it's not just the churches that our organization is affiliated with. So, that's an important aspect of it. I'd be dishonest if I didn't say some of the people don't mind getting a free trip to some place in the south when it's winter time in the north. But, you know, it's a neat way to combine service with their desire to be in another location. So, we get a lot of volunteers from Canada.

Some volunteers had previously volunteered with the same organization following other disasters and were motivated to volunteer again because they had such a positive experience the first time. One volunteer explained why they volunteered repeatedly,

I really like the atmosphere. You're working really hard eight hours a day with this group of people who are also just here to work hard, and be good in the world, and do good. Then at the end of the day, you all go back to your base, you hang out, read books, watch TV, eat food together, play together. It's such a cliché phrase, but you turn into this family and in a way. You're even closer than your normal family because you just spend all the time together making ridiculous jokes and having fun. Like I said, just doing good in the world. I really loved that feeling in Nepal. I wanted to see if it was different on a domestic project. The work is different but that feeling of togetherness and community is definitely the same.

The majority of out-of-state volunteers included in this study ended up volunteering in East Texas as a result of wanting to work with a particular organization. A number of participants sought volunteer opportunities with an organization that was engaged in disaster work. In these cases, the volunteers told the organizations that they wanted to volunteer and were assigned to East Texas. In other words, these volunteers did not have a particular interest in

working in East Texas, rather they were just interested in volunteering with that organization. By signing up to volunteer through their organization they were agreeing to go to any of the organization's projects to which they were assigned. For these participants there was nothing specific that motivated them to choose East Texas as their location to volunteer. Volunteering in East Texas was simply a function of being assigned there by the organization.

On the contrary, for local volunteers working with an organization was more a function of the organization being located locally and the individual knowing the organization needed volunteers. One participant explained,

I live in the neighborhood around here, which is where the headquarters is for [this organization] ... I... wanted to do community service work in this area, and I talked to one of the specialist people who work there. She was like, "Well, there's [organization's name]." I was like, "Really, they're here?" She was like, "Yeah, they've been here in our church", and I was like, "In your church?" We had a little back and forth thing, I was quite surprised. I walked in... and from there I was able to get a job... I was really looking for any community service, but I think what sweetened the deal was the fact that it was a disaster.

These volunteers tended to be most interested in helping their own community, rather than working with a particular organization or even engaging specifically in recovery work. However, the local volunteers included here had to and did quickly assimilate into the group. The locals initially seemed to view their volunteerism not necessarily as "disaster work" but rather as just an opportunity to help their community. The fact that the help their community needed was disaster related came across as an afterthought. This stood in contrast to the non-local volunteers who were interested specifically in doing disaster specific work rather than helping a specific community.

Unlike in response, awareness of the actual unmet needs in East Texas was not an initial motivation for the recovery volunteers in this study. While all of the volunteers had an awareness of the flooding that had occurred in East Texas before they began volunteering, most volunteers,

including local volunteers did not know the full extent of needs until after they arrived at the volunteer site. Volunteers explained,

It was definitely national news... Where I live in East Texas... we didn't experience the severity of the flooding that this area has. If you look along the side here, you'll see the water damage. That was a shock to me to see 4½ almost 5 feet of water damage

I had no idea what flood damage looked like. This has been overwhelming. The smell and the mold and the rotted wood and how much stuff people have lost. If they had books, they were all gone. Books just swell up. We had these crowbars to get books out of bookcases. It's just hard. Any little trinket or anything you can find in a house that's worth saving, you put it out back so the owners can have it back.

I didn't even know the devastation was what it was here initially. You hear about it but when you can see it, it's a different thing.

Individual volunteers, even those who were local to the community, explained that they had been unaware of the full extent of need. It was only through their time volunteering that they came to better understand the extent of impacts and needs. Motivation alone was not enough to get participants volunteering, they also needed to have the availability.

Individual Factors: Availability

A second factor related to individual volunteers is their availability. Volunteers need to have an adequate amount of free time to be able to volunteer. Most volunteers, both out-of-state and local, were retired or on school break.

I'm just a volunteer, I retired on March 1st so I'm giving back to the community and having a good time.

No, because I'm retired and so not really. My husband's got some illnesses, so I work around doctors' appointments and what I'm not doing at home. When I'm not busy having a project that I have to get done at home, I come over here.

I guess it kind of worked with my schedule to come and do some volunteer work, and so I'm glad I had opportunity to do it.

I want to be here through November but my school doesn't allow me to start midway through the year so I'll leave in September.

An informant elaborated,

It's tough. I was just talking to one of the volunteers here. She was telling me that it's getting harder because her bank account is getting lower. It goes into a lot of people are retired, a lot of people actually have side jobs which is incredible to me. I can't imagine doing all this work and having another job too. So some of them have online side jobs. It's just a really good time management thing that they've figured out. Some of them are still living with their parents so their parents provide for them. I think also [this organization] has each other's backs. Like, if they go out to eat no one is going to not eat because they can't afford to. Everyone will figure out a way to feed you.

Volunteers tended to volunteer for as long as they are available.

Local volunteers tended to volunteer throughout the week as their schedules allowed. An informant also explained, "It's easier for locals to join in on the response if their home isn't destroyed and the infrastructure allows for it." Informants noted that there tended to be increased volunteerism on the weekends when locals had time off work and therefore, the time to volunteer. One informant summarized the change in volunteers over the course of each week,

During the weekdays we get maybe a dozen day volunteers. On the weekends when people have time off of work we see a spike of day volunteers. Throughout the week we have our alumni team, an AmeriCorps team, and then we have some day volunteers. During the week it's really hard to get volunteers to go out. When the weekends come that's when it spikes up. For our organization, we work through the weekend and take Monday's off. That way we can take volunteers on the weekend... It's just people have their own lives. They've got jobs and they're working during the day, so weekends are about the only time that they come out.

While local volunteers tended to volunteer intermittently as their schedules allowed, non-local volunteers needed longer windows of availability. Some out-of-state volunteers in this study were also retired or on school break while others were taking time off before or after college, or had taken vacation time. Volunteers and informants explained,

I'm a free bird. I graduated from college and am just figuring out my next step in life.

I graduated college before I started [volunteering with this organization]. Then my term was done in June. I started like almost right afterwards... Although they're here until August 1st but I decided to extend it because they extended the project after I applied.

No. I graduated last May, and then I moved to Thailand three days later and had a job there. My contract ended at the end of February, I stayed in Nepal at the beginning of March. So, I haven't been taking off work.

A lot of times it's not because they want to leave, it's that they need to. We have a volunteer leaving on Monday because she only told her work she'd be gone for two weeks. She regrets it. We never judge. Usually they find their way back.

By virtue of the amount of travel required for non-local volunteers, they planned their time in East Texas to last over the course of a week, if not several weeks, or months.

The amount of time an individual was able to commit to volunteering varied from person-to-person based on their life circumstances. Regardless, all of the participants had found a way to have the time to dedicate to volunteer work. However, it is not just about having free time, the participants also needed to find an organization with a volunteer opportunity that aligned with their availability and motivations. The individuals in this study sought out organizations that had volunteer opportunities that complement their personal availability. For example, participants who worked during the week needed to find an organization that offered volunteer opportunities on the weekend. The availability of the individual must match the availability of the organization offering a volunteer opportunity.

Individual Factors: Goodness-of-Fit Between Volunteer and Organization

Participants reported considering the model of the organization before agreeing to volunteer. The model of the organization included any cost associated with volunteering with the organization, the type of work required by the organization, the length of the volunteer commitment, skills required by the organization, and/ or the location of the organization. Individuals particularly considered how the organization's model fit with their motivations,

interests, geographic proximity, and their availability. Volunteers explained why they decided to volunteer with the organization they selected,

[This organization] has definitely been the best thing I've ever done with my life. Free education, they pay for your lodging, transportation, everything.

I had always wanted to go to Nepal. This is a good way to do that. You get food and lodging. I just had to get there.

Well, [this organization] covers the cost of travel and housing onsite.

Informants emphasized the need for goodness-of-fit with volunteers,

A big thing that we focus on is making the trip affordable because we want as many students to go as possible. I know the last trip was \$150 for the whole trip – you know travel, food, everything. So we really want to make it affordable so that everyone has the opportunity and we can provide as much help as possible. So we kind of compare flight prices, housing, all that stuff.

I think a lot of them are drawn to disaster work and then they find out our model of not needing to be qualified and not being made to pay. That's when we get people flood in.

Usually they are volunteers that have progressed to become great on site. We train them and everything. A lot of people like it because you don't have to pay to work with this organization. We hear that all the time. We actually have a couple of church groups that came to Texas to volunteer. They were like, how much is it? We were like, it's free to volunteer with us. Okay, awesome, here's \$2000 for our food and our housing. We were like, okay, thank you. We'll put that towards the budget for the program.

These organizations designed their programs/ organizations to intentionally encourage individuals to volunteer with them. While individual participants decided which organizations to work with, that organization also needed to approve of that individual and be ready to accept volunteers.

One organization explained that they had recently stopped relying on volunteer labor to the extent that they had previously,

So here's the thing though. We haven't used, I haven't used as many volunteers... For the most part I've been using contractors on a lot of these. We did, and the problem with that is just from the management. We only have 7 people in our whole organization and we do 375 homes a year. So personal opportunities for people to manage those groups or

manage those individuals... What we have said is that the case managers have to manage the volunteers if they're going to use them. Um, there's certain things that you can't have volunteers doing. You can't have them do electrical, plumbing, some of the roof work. It's very hard to find skilled volunteers that can do that. You need permits, you need all these other things. So for some of those things you need to use contractors for.

This instance illustrates how not only do the volunteers need to experience a goodness-of-fit with the organization but also the organizational needs to have a goodness-of-fit with the volunteers.

When the individual volunteers found an organization that met their needs, and the organization thought the individual could help then there was a goodness-of-fit.

The organizations included in this study all had some type of "requirements" in order to volunteer with their organization. These requirements varied across organizations but included things such as a minimum skill level, a minimum amount of availability, and/ or certain training. When individuals wanted to work with an organization, met the requirements of the organization, and the organization was ready to host volunteers, then the connection between the individual and the organization was made.

Honestly all we really look for is the date. We want to make sure you're here before the end of the project because we don't want you to just come and clean. After a certain time, if that's the case I'll move them to South Carolina because they have a longer deadline. Also, you need to be of age to be in the program. If you have a parent or guardian, you can be 16, but if you're not, you have to be 18.

Ideally, training is cool. In an ideal world that would be perfect but I feel like the people that don't have training are still putting their all in it. So, honestly, I don't have any preference. I think as long as you are working and you are in it for the cause and not just the travel of it. There's nothing wrong with the travel part but when you're here not for the travel and to actually help the community then it's fine. As long as you're willing to help.

We're at that place, especially when you have a project like a donations management warehouse, where you're dealing with the volunteer aspect. You have to make sure you are seeking volunteers; you have to make sure you're taking care of them. Again, we're in a place that has no air conditioning, it's a tough, tough call. You're limiting who you can get in there and do this kind of work.

Sometimes someone who is 84 can outwork someone who is 64. It all depends. There's an assessment process that helps determine whether folks are reaching a point where they shouldn't be out there anymore.

The goodness-of-fit between an individual volunteer and an organization was only a factor when a volunteer did not have their arrangements made on their behalf by an organization they were already a member of (e.g., AmeriCorps assigned them to work with a particular voluntary organization in the impacted community).

Individual Factors: Group Membership

The majority of participants were members of a group that in some way influenced their engagement. Participants were members of, or associated with, a group that became involved in the recovery including churches, companies, federally funded volunteer organizations, or other voluntary organizations. This occurred in one of two ways.

First, the individual was a member of a group that became involved in the recovery. Some groups were directly involved in the recovery as an organization that provided recovery services (e.g., local nonprofits and national disaster nonprofits). Other groups became involved through a collaboration with these direct-service organizations by providing them with volunteers (e.g., AmeriCorps and churches). In these cases, the organization the individual was a member of selected the volunteer opportunity on behalf of the individual.

I'm in [organization's name]. So we were assigned to come here.

They're like, 'Texas needs help'. Two days later, we're on the road going down to Texas. It was really last minute, so we were all hectic, doing all our paperwork and stuff.

I go to the [local church], and [local disaster organization] invited [national disaster organization] to come here... Yes, yes I was not aware of [the national disaster organization] before this event... Our preacher was on vacation in Alaska and the secretary sent me an email asking me to attend the meeting, and they'd already been here a week or something like that and I didn't know anything about it, so that's how I learned about it.

The individual volunteers had little to no say over this decision.

These groups did not necessarily have a specific-disaster mission but rather they were able to partner with organizations that did and provide them with volunteers. Participants were already members of these groups before their organization decided to partner. A common example of this were individuals who were AmeriCorps members. AmeriCorps assigned them to Texas and to work with a specific organization. The AmeriCorps volunteers did not have a say in which organizations they would work with in Texas, their engagement was completely dictated by their organization. In this example, AmeriCorps made the goodness-of-fit decision with their partner organization in Texas absent of input from their individual volunteers. Individual volunteers have very little to do with the development and execution of collaborations that are arranged between two organizations where one is providing volunteers and the other runs the volunteer site. Yet, this collaboration influences just about every aspect of the volunteer's engagement despite the individual having little to no say over that decision.

The second way group membership explained voluntary engagement was when the volunteer was already a member of the organization overseeing the volunteer site. Many participants were already a member of the group and had previously volunteered with the organization during other disasters. Participants explained how they had first found out about the organization they would eventually join,

I actually first found [this organization] through my service with AmeriCorps, when I worked in Detroit.

I started with [this organization] in the fall. I heard about from my roommate in Thailand who had gone to the project in the Philippines for two weeks. She came back and was like, "[this organization] is the greatest thing ever, you should definitely check it out." I did some research, found out where else in the world they were.

I have a really good friend who is part of [this organization]. He's actually a project coordinator in Fiji. He was in the Philippines for two years. He told me to come out.

These encounters had initiated the individual initial interest in becoming a member of the organization. Individuals had joined the group and volunteered with them previous to deploying to the East Texas recovery.

The participants included in this study demonstrated loyalty to their organization by repetitively volunteering with the same organization. As one informant simply explained, "We have a lot of repeat volunteers." It was not that volunteers necessarily had an interest in volunteering in Texas specifically but rather that they wanted to become a member of a specific organization. One volunteer explained, "I'm basically told where to go and why to go there... After August 31st either we'll have a rebuild project open up here or I'll be sent to another domestic project." An informant explained how their organization directed their volunteer membership to projects.

Everybody wants to go to Fiji. I think that when you have international volunteers coming to the states they're really open to going anywhere. I think domestic folks as well. They may prefer Fiji but if you send them somewhere else and explain the help that they need. You know, they'll get to Fiji eventually. I know in South Carolina there was a woman who wanted to go to Fiji but they needed help there. That really all goes back to people doing it because they really want to do the work.

Volunteers who signed up to work with national organizations were assigned to a disaster.

In this study, individuals who are members of a group that becomes involved in the recovery process were more likely to engage than individuals who were not a part of a group that engaged in the recovery. This may be the case because organizations turned to their existing membership before looking to recruit volunteers from other sources.

From the point that a volunteer is connected with an organization, the actions taken by individual volunteers were guided by the organization. The volunteer had little to no say over

which volunteer site they would work at, which tasks they would do, how long they would work for, and if they were from out-of-state, where they would stay. Once they connected with an organization their engagement was explained by the actions taken by that organization. In addition to these individual factors there were two factors at a community-wide level of analysis that also helped to explain volunteer engagement.

Community-Wide Factors

In addition to these individual factors there were two community-wide factors that influenced volunteer engagement during recovery. The first factor was the physical conditions in East Texas during the time of the second round of data collection, specifically the weather. The second factor at a community-wide level was the media, or lack of media coverage of the recovery process in East Texas.

Community Factors: Physical Conditions

Participants in this study frequently noted that the physical conditions in the community, specifically the weather, dictated how and when volunteers and organizations engaged in East Texas. At the time of the researcher's second data collection trip, August 2016, much of the work that needed to be done in the community (i.e., rebuilding from the 2015 flooding and mucking/ gutting and clearing debris from 2016 flooding) required volunteers to work outside. Unfortunately, late summer in East Texas meant a heat index of over 100 degrees, which made working outdoors a grueling, and dangerous, task. In fact, the temperature was so dangerously high on certain days that some voluntary organizations would not permit volunteers to be in the field out of concern for their safety. An informant explained,

There were a couple of days, a few days that we actually had to call our teams in early and shut down the operation because we were working in 115-120-degree heat. By the

time you have your personal protection equipment on and you're in a house already molded and no air circulation and everything, then the heat was just too dangerous.

A lot of people don't realize how hot it is here. We actually took half a day of work the other day because it was the hottest day of the summer. The heat index was around 120 degrees. The volunteer's safety is our biggest concern, making sure they're safe. So we took half a day and let them actually wash the vehicles. They had a blast and it cooled them off.

Organizations also reported that the high heat made it difficult to recruit volunteers. Spending the whole day tearing down moldy homes in 100-degree heat is not necessarily an enticing opportunity. An informant elaborated, "people also refrain from volunteering because it's so damn hot. It's just hard to find volunteers and people aren't aware that there's stuff to be done." And, another simply said, "it's a hot summer, it's late in the summer. We can tell it's going to be a challenge." The voluntary organizations were struggling with how to handle this since the weather was outside of their control. One informant said simply, "it's just, like I said, the heat has just been exhausting and most of them don't want to do that." Another explained her strategy, "Typically, if you can get them out one day of mucking and gutting then they're hooked. The challenge there becomes how do you make that an attractive thing at a 107 heat index? So during the week we get very little engagement." In fact, one informant said they thought the heat was a primary explanation for low volunteer turnout.

I think the biggest reason [for low volunteer turnout] is that in the heat of the summer, which this has been an extremely hot summer, the people of Texas know the weather and they just don't come outside of their house. I don't blame them... I think that disaster fatigue had some play in it, but I really think a whole lot of the issue is just that the heat has been terrible this year.

One informant noted that the high heat had been a barrier to recovery work in 2015 and also in Louisiana earlier in 2016,

It was hot in 2015, too, but not like it has been this year... In Texas and the really high humid hot areas, not just Texas, then that's just kind of the way that people live their

lives. They go from air conditioning to air conditioning and they don't get out in it if they don't have to. We just came out of Louisiana and we have the same problem in Louisiana.

Volunteers also cited the heat as the biggest challenge they experienced while volunteering,

We have to take a lot of breaks for the heat. The heat's definitely been a challenge for everybody. There's been several people who have gotten heat exhaustion. You have to make sure your taking breaks and drinking all your water.

Other than the weather... Nepal is hot but this humidity is like a whole other level. The weather is intense. It's had me sick for a while. I'm not used to doing response work. I'm more of a rebuild guy.

It's just a grueling project. You just have to get up every day and forget the last day and just completely focus on doing the work for the day and not focus on how hot it is. You just have to work through the negatives and focus on the positives.

The heat and the humidity, definitely. Yeah, it's a lot of people's ... I'm from Colorado, I'm used to dry heat. The humidity is getting to me. I can still work through it, definitely.

This confirmed the informants about the challenge of recruiting volunteers in such conditions.

However, some of the informants who worked with voluntary organizations during other disasters noted that sometimes the weather conditions had worked in their favor when recruiting volunteers. One organization explained that their members were primarily based in the northern United States. Their volunteers actually preferred volunteering in the south during the winter season so they could escape the cold. One informant explained, "What we find in the winter is that our volunteers like to go down to the South where it's warm. For us when it's January in Minnesota and it's warm in Florida, people are happy to get away."

This testimony suggests that the weather conditions either inhibit, as in the case of East Texas, or facilitate, as in the case of volunteering in the winter months, volunteer engagement. Clearly, no one has the ability to change the weather conditions in the impacted community. However, with the right resources, organizations could find ways to contribute to recovery using volunteer labor even in unfavorable weather conditions. One emergency management official

spoke about a warehouse they were working to set up in the community to distribute in-kind donations throughout recovery. There had been a few barriers to opening the center but one issue that stood out was that they needed an air-conditioned warehouse, given the high heat. Had they had access to an air-conditioned space they could have started recruiting volunteers and start distributing the donations to the community sooner.

The high heat in Texas throughout the summer seemed to have a direct, negative impact on the number of people who volunteered. It also dictated how long and when volunteers could work and influenced which tasks volunteers addressed on the hottest days. One other community-wide factor was found to help explain volunteer engagement – the media coverage of the recovery.

Community Factors: Media

Informants reported that there had been minimal media coverage of the flooding, specifically the recovery process, in the time since the immediate response had concluded. Informants felt the minimal media coverage had contributed to a lack of awareness among the public as to the extent of need in the impacted communities. As evidence of this, organizations reported receiving more donations and volunteers with relatively minimal effort when the media adequately reported the extent of unmet needs. In Texas, as time moved away from the time of impact, media coverage decreased meaning that the voluntary organizations had to dedicate their efforts to raising awareness of the needs in the community. Informants explained how this lack of awareness, perpetuated by a lack of media coverage influenced volunteer engagement,

I mean it's always a challenge to keep volunteers interested in helping once the disaster runs it's cycle to something else on the front page of the paper. That's a blanket statement for all disasters. What we see time and time again is that when it's not on the front burner people will say, 'oh, well I thought everything was done there' or 'I didn't think anyone needed our help anymore'. So that's an ongoing challenge to try to keep volunteers

engaged after the initial firestorm of whoever wants to help. That usually lasts 10 or maybe 15 days maybe for something like East Texas. Where people are just really willing to just get up every day and help volunteer. Some of the bigger ones, Sandy or Katrina, certainly had a longer shelf life. But yeah, it's a challenge to get volunteers long term or just to repeat.

Some of it is how quickly it goes off the media. That emotional, community sense of grief when it's all plastered those first 72 hours, if I can get in there and get them outside during that then I'm better off. If I wait it's a lot harder.

I think there is a, because our culture is so media driven, I think when it comes off the news that there's this sense of "we're forgotten, no one cares, why bother". I think as leaders that's one of the hardest messages that we have to keep alive. It matters.

In East Texas, once the media coverage slowed, the responsibility to educate the public

and recruit volunteers fell to the voluntary organizations. Informants talked about how their organizations actively worked to spread awareness of unmet needs,

We share information year round, the whole time we're out, and use social media, our website, and emails. Just keeping them aware. The media stops showing it on TV, our volunteer groups fall off. We have to try to keep it in front of them that it's still going on even though it may be an eight-hour drive from where you live.

One informant spoke about how local government, specifically the emergency management office, had worked to maintain awareness of the recovery process,

In Fort Bend, I've been really, really impressed with how the OEM has worked beside the nonprofits. We knew we were coming up to the lull [between short- and long-term recovery] so they threw a county-wide appreciation day at one of the parks with a barbeque, games, and kept people involved. They found a way to keep people aware of what was still going on. Very creative.

One organization included in this study was able to mitigate the drop-off in volunteers that all the other organizations reported because they were able to explain the importance of long-term recovery to their base and had funding to support the work in long-term recovery.

No. I find that volunteers are very committed to that long-term response. We've really drummed that into our volunteers too. We know you would like to be there tomorrow after disaster but really what's important is to be there two years later when the critical reconstruction is happening. So, that's a hallmark for us. One of the factors that I think makes it successful for us is that we are an international organization. So, there are

resources that come into us that are undesignated. We can use that for disaster responses that are no longer in the news. That's very helpful.

Based on the testimony of this study's participants there seemed to be a relationship between media coverage and volunteer numbers. Participants believed that when the needs of the community were covered in the press more people learned about the needs and became motivated to volunteer. Future research should explore this correlation in more depth.

Model of Volunteer Engagement in Recovery

This chapter and Chapter Eight reviewed the factors that were found to explain volunteer engagement during recovery in East Texas. Chapter Eight reviewed the organizational factors that explained volunteer engagement including the goodness-of-fit between the organization and the community, the capacity of each voluntary organization, the integration of the organizations, and the logistical support provided to those who volunteered with their organization. This chapter has reviewed the individual factors that explain volunteer engagement including a volunteer's initial motivation, availability, group membership, and goodness-of-fit with the organization with which they volunteer. This chapter also reviewed factors at a community-wide level of analysis including the physical conditions experienced by the community and the press coverage of the recovery process.

While conducting data analysis the researcher determined that it was useful to portray the factors influencing volunteer engagement in recovery as was done with respect to their engagement in response. Figure 2 depicts a model of volunteer engagement in recovery.

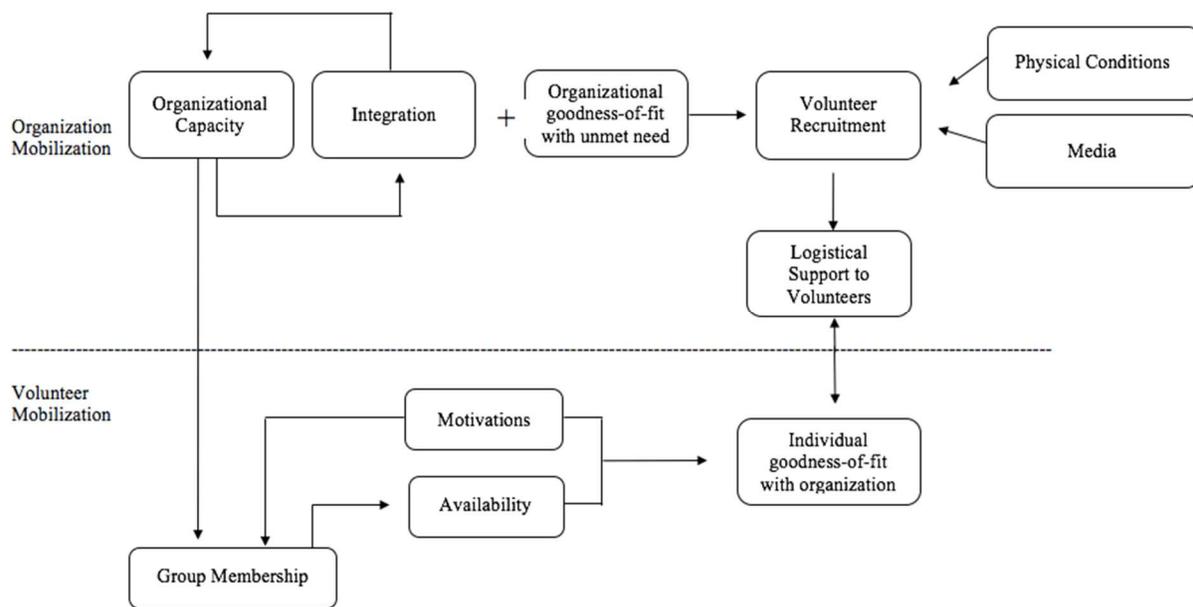


Figure 3: The process of recovery volunteer engagement: Individuals and overall.

The model presented here explains the volunteerism in East Texas, specifically the lack of volunteerism despite the many unmet needs across the impacted communities.

Individual, organizational, and community-wide factors come together to influence volunteer engagement in recovery including where volunteers work, what volunteers do at those volunteer sites, and when they work at those volunteer sites. This is all influenced by constantly evolving unmet needs in the community. As time progressed, as the community took action or was inactive, as organizations and volunteers addressed unmet needs, the remaining needs in the community changed. These changing needs dictate what tasks need to be done and hopefully dictate the tasks with which volunteers and voluntary organizations engage. Finally, all of these factors, what occurs at the volunteer site, and the needs of the community is a dynamic process that occurs over the length of recovery, or more precisely, until volunteers are no longer engaged in the community. Factors at the individual, organizational, and community-wide levels and what happens at the volunteer sites are continuously influenced and influencing the unmet needs in the

impacted community throughout the entire course of recovery. One volunteer provided a summary that demonstrates the interplay between factors across the three levels of analysis,

We had retired here three years ago and I always liked volunteer work. After the flood happened, our church had a work day. They were two different Saturdays and I came to one of those and I just really enjoyed it so I just kept coming back. I really liked [this organization]. I try to do one day a week.

Individual, organizational, and community-wide factors were found to influence one another in this case.

Individual factors that influenced the engagement of recovery volunteers in East Texas included their initial motivation, their availability, group membership, and their ability to connect with an organization that meets their needs. These factors, though important, had relatively minimal influence on the overall picture of volunteer engagement. In comparison to individual factors, factors at an organizational level have a much larger influence over volunteer engagement.

In fact, some of the factors discussed at an organizational level of analysis directly explain organizational engagement rather than volunteer engagement. Yet, because of how heavily reliant the volunteers in this study were on organizations while engaging in East Texas, these factors seemed to be more involved than one would think. That volunteer engagement centered around organizations indicates that in order to understand volunteer engagement it is necessary to understand organizational engagement.

Volunteer engagement during recovery in East Texas was nonlinear. There was a constant back and forth among many of the factors in this model. As needs change, as awareness of needs changes, as organizations engage or disengage over time, the volunteer engagement changes. Additionally, organizations cycled through parts of this process more than once, as did some volunteers. Organizations did not just recruit volunteers one time, it was an ongoing effort

as the needs of the community and the capacity of their organization fluctuated. This was similar for individuals as well. Some volunteered just once while others volunteered a few times off and on, and still others are committed for weeks or months.

The factors described in this chapter and Chapter Eight either inhibited or facilitated volunteer engagement during recovery in East Texas. For example, the press coverage of the recovery and unmet needs in the community was important throughout the entire recovery as a way to raise awareness of need and motivate individuals to volunteer. However, the amount of media attention given to East Texas was much higher during the flooding and immediately after than it has been since. As time moved on, the media factor went from being a facilitator of volunteer engagement to inhibiting volunteer engagement.

In sum, any questions that could be asked related to volunteer engagement in recovery in East Texas can be explained by some combination of the factors in this model. Questions such as: How do volunteers end up doing certain tasks? How do volunteers decide to work in certain communities? How do volunteers decide which organizations to work with? How do volunteers find accommodations? How do volunteers decide how long to volunteer for?

Conclusion

This chapter has reviewed the factors at individual and community level of analysis that were found to explain volunteer engagement during recovery in East Texas. A model of volunteer engagement in recovery was also presented and explained. The contrast of this recovery model with the response model first presented in Chapter Six is addressed in Chapter Eleven. Chapter Ten discusses the themes that emerged during analysis of the recovery data but were not found to be factors.

CHAPTER TEN: RECOVERY THEMES BUT NOT FACTORS

A number of themes emerged during data analysis that did not seem to explain volunteer engagement in the case of East Texas. As was the case for including the response themes, the recovery themes have been included here so that they may be tested in future research related to volunteer engagement in recovery. This Chapter discusses these recovery themes. The first section addresses components of volunteer infrastructure; and, the second section discusses the role of government in influencing volunteer and organizational engagement in recovery following the East Texas flood events.

Volunteer Infrastructure

There were a number of mechanisms in place in East Texas with the purpose of facilitating the engagement of voluntary organizations and volunteerism. These mechanisms can be considered to be “volunteer infrastructure”. These mechanisms were mentioned by some informants in the course of their interviews. However, the role of this volunteer infrastructure seemed not to explain volunteer engagement.

Virtual Volunteer Recruitment Center

Houston has an online volunteer recruitment platform where organizations can post general volunteer opportunities available to community members. This platform includes a disaster volunteer category. The researcher first became aware of this platform during response. The researcher observed that during response the platform directed people to call the same disaster organization that the other media outlets had suggested. The researcher continued to observe the volunteer postings throughout the recovery time period and only saw one organization post a recovery-related volunteer opportunity on the site. The representative from that organization said, “Our information is on [the website]. We met them at a local Long-term

Recovery Committee meeting. They also got our information through the Local Voluntary Organization Active in Disaster because we're a member of the National Voluntary Organizations Active in Disaster." Informants from a few other, local organizations mentioned that in the past they had posted opportunities to the site but were not currently using it because they did not find it was effective. One informant summarized the general sentiment of the organizations,

[They run] a virtual, kind of a craigslist [for volunteers]. I don't find that effective. For me that's the same thing as I said before, it doesn't keep them engaged unless you keep them outside. I don't believe, I believe in theory it works, but in practice, in two years I haven't seen it be effective. I think that they work very well probably, and I'm assuming, for marathons or spectator sports and things of that nature and it's a one-day commitment but for long-term like this I have personally not seen that make a difference. Word of mouth and community driven has worked better for me. I don't utilize them. I also think that a virtual VRC is not a VRC. I think if I can get in front of somebody and share my passion for what we're doing then I can get them engaged but I can't do that if they have to hit a button and tell me what day they might want to come out. That's my personal, I don't find that what they've done has been very successful. I think it's the nature of it though, not the people. I don't think it's [the person who runs it] but I think that they're more effective for other types of volunteer opportunities.

None of the participants found the tool to be useful for the purpose of finding recovery volunteers. In fact, one participant compared it to other platforms seen in other communities going through recovery,

I cannot recall how successful we were with their platform but I know we worked to get our opportunities available on it... Right now I'm working in the mountains of West Virginia. There's volunteer West Virginia. It is a platform that is found in other disasters. Sometimes it works better than others. But, yeah, it's not the first time I've seen it and it won't be the last.

Participants seemed to agree that having a website where individuals could find recovery-related volunteer opportunities seemed like a good idea in theory, but in reality they found it did not help them increase their volunteer turnout rate.

The researcher recommends that more research be done on these types of volunteer platforms, especially as they become more prevalent throughout the country. The fact that the platform did not influence volunteer engagement in East Texas could have been for a number of reasons (e.g., how the site was advertised or how few groups posted volunteer opportunities). It seems that such a platform could influence volunteer engagement in a different situation so future research should explore this potential factor further. A second piece of volunteer infrastructure mentioned by participants were Voluntary Organizations Active in Disaster (VOAD).

Voluntary Organizations Active in Disaster (VOAD)

Organizations came to know one another a number of different ways. However, one intentional organizing approach facilitated this integration in the case of East Texas during recovery. There were two VOADs that came up during interviews with participants in this study. The first was National Voluntary Organizations Active in Disaster (NVOAD). Organizations that were NVOAD members tended to be familiar with one another through their involvement in the group.

We as an agency were one of the founding members of NVOAD. There's a lot of networking that gets done with the VOADs. Overtime those VOADs have become familiar with the services we provide so quite often they're asking us if we would be the organization that they would call on to do the needs assessment.

There were a few organizations working in East Texas that are NVOAD members. In these cases, the informants reported being familiar with each other's organizations as a product of being NVOAD members as well as having seen on another at other disasters.

Similar to NVOAD, a number of organizations mentioned they made an effort to connect with the Local Voluntary Organizations Active in Disaster (LVOAD).

My connection there to tap into emergency management was probably the Houston area VOAD... Day to day we weren't incredibly, we provided them the information they needed about where we were working but there wasn't a constant stream of communication between them and us. It was kind of providing a daily or weekly situational report about what we were doing and where.

Yea, literally the second day we got in we went to the [LVOAD] meeting. We put our name out, met with the board, we went to the OEM office to make connections there. We found our base through the LVOAD.

We are active members in the [LVOAD]. I personally disagree with some of the philosophies of [one organization]. They're free to do whatever they do and so, God Bless them, but I don't want to be associated with some of their very right winged political agenda. I just want to go in and be the church that's helping people. I don't know if there's a nice way to put that. It's just live and let live. We're courteous towards one another but I don't actively seek partnership with them. That's just me personally, others might. They're still doing good work whether I agree with them or not.

We utilize the VOADs and the COADs so that we can, you know, know where everybody is and where the needs are. So if you have 14 different agencies and we all have widgets, that doesn't help. We find there's a lot of people doing canvassing then we might say, we'll let us know which ones need a muck and gut and we'll go behind you. Or [one organization] did the tree removal off the back of the houses and we tarped. So I try to find out what the need is and then be very specific with the scope during the relief stage.

The general consensus among organizations was that, true to their purpose, participating in the LVOAD was useful as a way to meet other organizations but not as a way to share specific information or coordinate their work, though there were isolated instances of that happening. The usefulness of VOADs seemed to be the extent to which they facilitated an organizations integration (see Chapter Eight).

Long-Term Recovery Committees (LTRC)

The second structure that worked to facilitate an organization's integration were Long-Term Recovery Committees (LTRCs). In addition to VOADs, some organizations came to know one another at LTRC meetings in the impacted communities. An LTRC provides an opportunity for organizations involved in the recovery to meet with one another throughout the recovery

process to ensure that all needs are being addressed in the community. In East Texas, LTRC's provided an opportunity for the representatives of different organizations to get to know one another and make plans for working together throughout recovery.

The researcher encountered three separate LTRC's throughout the course of this researcher, one in each of the three counties included in this study. At the time this data was collected, each committee was at a different stage of development and operation. One informant explained how their community founded their LTRC after flooding in 2015,

Well the very first day. I mean the day after the Memorial Day floods 2015 because we had worked with the city they called us in; the Housing and Community Development called us in and the Mayor. Literally it was the Saturday after. They called our executive director, and I, and our construction director person showed up. That was just because we had that relationship with the city that that all started. When this committee started we were a part of it. What's important about it, well there's several things. First of all, normally we do for our own clients, we do the assessments, whether they meet all the qualifications. What's good about this is that all these case managers were able to do the assessments to make sure these people were in need. That if these people got FEMA money they used it the way they were supposed to. If they got insurance money they did it the way they were supposed to. Like I said we didn't have the bandwidth to do all that to find these homeowners and to vet them and do all that so it was important for us to have the case managers do all that vetting. And it was important for the case managers to have us because we know the construction part. It was also good long term because we made some relationships and partnerships that we'll probably have long-term that we'll be able to support and help each other.

At the time of these interviews this committee was still addressing 2015 needs and had not yet begun casework for the 2016 flooding.

The other two communities included in this study did not have such a group developed prior to the 2016 flooding. However, in both cases local emergency management officials suggested that such committees be created. An informant involved in the development of the LTRC in one community explained,

We've formed a long-term recovery committee. We went and essentially got it started. We have people from all over the community who are a part of that team. It's a Wharton County long-term recovery team so it's essentially anything out in the county. If El

Campo floods we could help out there. We have different, a construction team, a fundraising group. They have a board of directors, president, vice president, secretary that does all that kind of stuff. They have applied for 501(c)(3) and because it was within 90 days of the flood hopefully we'll be able to get that expedited. So, they're working.

And, an informant involved in the development of the LTRC in the third community explained,

Getting into the long term part of it as you know, it can go on for months and years. That's where we're headed, into the long term recovery. We have a long term recovery committee that has been formed. It's available to basically to coordinate unmet needs for the long term. Basically, as you know, most of the counties already have long term recovery committees established, but this is our first one. We're creating one while we're engaged in this recovery, so that's another challenge. Our long term recovery has a name. We have like a way to communicate, it's called listserv. We're using that as a way as the official communications vehicle to share our updates.

Regardless of where the community was in the process of developing an LTRC, there was consensus from all participants that the LTRC's should be used and created. The informants that had worked with long-term recovery committees reported having a positive experience and it being a successful way to build partnerships with other organizations engaging in recovery. Informants said, "The LTRC has been a great relationship" and "when we were here last year we had partnerships [with local organizations] that all came through the LTRC."

In fact, organizations from out-of-state were specifically looking for the community to be organized in planning the recovery before they became involved. Informants described that when a local community did not have recovery plan or a long-term recovery committee it could slow their work down. Informants representing out-of-state organizations said,

One of them would be the establishment of the long term recovery organization. We want it to be well established so that we're working with a community organization. So, that's a really important piece. The amount of funding that the local group has would be important so that they are able to do some of the case management, provide for some of the unmet needs that are not related to volunteers – materials.

We also consider how much help we can be and how organized the group is that we'll be working with to make sure that we can help as much as we can while we're there. When we were in Houston we were working with a few different groups and it was a little unorganized. So that was definitely a learning experience for us because at times we felt

like we were just standing around not doing anything. That's a big reason why we want to go back this year because we found groups that we liked working with and we feel like we could be more helpful this coming year if we decide to go back.

Once long-term recovery is set up and there's case work in place and all that. We will subsequently, after the disasters, go back and send teams or volunteers under our leadership to go in and do the recovery work.

One informant emphasized the usefulness of LTRCs by explaining that an absence of one can lead to problems in recovery,

Sometimes it takes a while for those long-term recovery organizations to get established. For instance, right now in Detroit it took a long time for the Detroit organization to get going. That often will delay or impact our ability to work their long term because we want to really make sure that we're connecting to the resilience piece of the community so that long-term organization is pretty critical. We do have managers that will act as advisors to those organizations to help them get established. There are other NGOs that will not necessarily pay attention to what I would call the resiliency piece... rather they just come in and identify whoever the local partner is that they have on the ground and will begin to do work with those partners. From my perspective it undermines the opportunity for really helping the local community be strengthened over the long term for future disasters or even long term community development work.

Ultimately, these structures, VOADs and LTRCs, provided an opportunity for organizations to get to know one another.

This infrastructure served as a way to promote organizational partnerships in East Texas. Initiating the development of LTRC's facilitated the organizational partnerships in the community which presumably had an impact on volunteering in the community as it facilitated the engagement of voluntary organizations. Interestingly, in each case in East Texas, the local government initiated the development of their community's LTRC.

Government Action

Local emergency management officials initiated the formation of the LTRC's, but the actual work done by the committees were the responsibility of the nonprofit members. The emergency management officials interviewed for this study said they were hoping that the

development of LTRCs would ultimately facilitate the ability of the nonprofit to meet the needs of the community and also to increase and direct volunteer efforts in their communities.

Interestingly, the emergency management officials interviewed for this study seemed to be under the impression that the LTRCs were going to be the main drivers of recovery in their communities, an impression that was not reflected back in the interviews with the nonprofits serving on those LTRCs.

I let them know right quick that this is not a city organization. This is not a government organization. This is your organization and you're in charge. I'll be happy to help you and get you what you need but this is your organization. So, it's working. It's probably slower than a lot of us would like. The state VAL [Voluntary Agency Liaison] had to come down and do training, specifically for caseworkers because the confidentiality. Everyone has signed a confidentiality agreement. We had to do a little bit of counseling.

In this view, the NGOs are not just providing support to the community but seemed to be viewed as largely responsible for the recovery process in the community. This was evidence by the emphasis placed on the development of LTRC's and the insistence that those committees were the responsibility of the organizations, not the local governments.

The informants in this study who represented voluntary organizations had relatively few comments about the local government. One informant summarized this sentiment held among participants saying,

I don't dive too deep into the local politics. I will say for us; we were one of just a couple of organization that were granted a key to the city by the Mayor at the time for the work that we were doing. So they certainly knew we were there and what we were up to. They made it a point to acknowledge us in front of city council but ultimately what we try to do is avoid the cloud of dust as much as we can from the government side and just get the actionable work into our que to work with.

Another explained,

It's different everywhere we go. You know, small town America maybe the emergency manager and the mayor is out working on my job site every day and they give us every last piece of information they have to help us. A city like Houston or Detroit, or some of the bigger ones we've been at the Mayor just doesn't have the bandwidth to do that. The

emergency management office doesn't have the bandwidth to do that. They don't have the bandwidth to be out there with every tiny nonprofit trying to do good. So, just government agencies differ dramatically from one disaster to another.

Local officials also discussed how actions taken at a federal level influenced their recovery process. When asked about the state of recovery in their community one informant said,

It's going but it's going slow. There's a lot of societal issues in that particular part of town and certain cultural issues... But back in 2004 we had a flood. FEMA told them that they needed flood insurance. FEMA paid for three years of their flood insurance but instead of buying the flood insurance they just gave them a check. So some of them did and some of them didn't. Some of them treated it like a windfall. Then, flood insurance on that part of town is SO expensive that some of them would buy the 3 years and then it would lapse. So, we had that particular problem, that they weren't going to get any help from FEMA because they didn't have flood insurance. Then we have the problem that there are a lot of rental homes over there. So FEMA isn't going to pay for any of those properties. But I mean, when I look at that, I can understand that but it's a problem because it doesn't matter if you own your own home or you're renting, you're still out of a home. Part of the problem is that the home might be owned but it's registered to great grandparents because they're ancestral homes. As long as the person who is living in the home is paying the taxes on the home then everyone's fine with it. But if they're going to get money for it, either for repair or buy-outs then everyone's like, I want my share. So, they're also not getting any help from FEMA because they can't prove they own the home. So we've been trying to work a little bit with some legal services but that's an onerous endeavor because there's a whole lot of people who have some interest in the homes.

It is also implicit that actions various elements of government took during the recovery had a bearing on determining the unmet needs in the community. Many informants spoke about waiting for residents to hear back from FEMA aid before being able to determine who in the community would need their help and even if there would end up being widespread need.

Though it did not seem to be their primary focus, emergency management officials found ways to guide the voluntary organizations working in the community. The emergency management officials were aware of the role nonprofits should play in recovery, were connected with VALs, were aware of the nonprofits working in their community and made attempts to facilitate the involvement of these groups in their community. The emergency management

officials knew to contact certain organization and were able to help bring them together to create the LTRCs. Though they took these steps it was clear that the emergency management officials were inexperienced with recovery.

It's really a learning experience for me. I've been an officer for 30 years and I've always been involved in response. Well response lasts a week, week and a half and you go back to normal duties. Well, recovery is hard and it lasts a lot longer. It's just a lot of problems. We have some solutions but then sometimes they lead to other problems. It just bugs me to no end. I'm not used to being the person who comes up with a lot of problems and then doesn't know the solutions.

Well, we'll probably end up doing, and of course I'm still thinking about this, but more of a recovery type plan and then as part of recovery doing volunteer management. I know probably just enough about it to get myself in trouble. I've taken some online courses that were really, really general but I know that we have had members of the long term recovery who have gone to classes in Houston for different aspects and they received training from the VAL.

The government does not have the authority to control or coordinate voluntary organizations. Yet, local government and voluntary organizations were aware of one another and generally knew what each were doing in the community. Furthermore, there was some indication that actions taken by the local government, specifically emergency management officials, had an indirect bearing on volunteer engagement in Texas.

Conclusion

This Chapter reviewed themes that emerged during data analysis but did not directly explain volunteer engagement in recovery in East Texas. The researcher felt it was important to include them in the reporting of the data so that future researchers can explore them further. The first theme centered around volunteer infrastructure specifically a virtual volunteer recruitment platform, voluntary organizations active in disasters, and long-term recovery committees. The second theme centered around government action. Specifically, the role that local emergency management officials had in encouraging communication among voluntary organizations, and

actions taken at all levels of government that influenced the number and type of unmet needs in the community. Chapter Eleven compares findings from response to the recovery findings in this study.

CHAPTER ELEVEN: COMPARING RESPONSE & RECOVERY

One purpose of this study was to determine the similarities and differences between volunteer engagement in response and recovery in East Texas. The first section compares engagement during response and recovery. The second section compares the factors that were found to explain volunteer engagement in response and recovery.

Response and Recovery Engagement Comparison

Volunteer engagement was conceptualized for the purpose of this study as a multi-dimensional concept within which one might examine the overall number of volunteers, the length and intensity of their involvement, the prevalence of certain types of volunteers, and the tasks and activities with which volunteers engage. This study has provided a description of volunteer engagement in response and recovery in the case of East Texas. There were significant differences between volunteer engagement in response and recovery.

The first aspect of volunteer engagement this study considered was the overall number of individuals that volunteered at each stage. In the case of East Texas, there were significantly more individuals volunteering simultaneously during response as compared to recovery. In other words, there were more volunteers during the week long time-period of response than there was on any given week during the recovery time-period. This was determined by both the first-hand observations of the researcher and the informant's data that spoke to the changing volunteer landscape over the course of both response and recovery since actual volunteer numbers were not recorded. Yet, it would seem that over a multiple-year recovery there would be more volunteers in total than in response because the unmet needs and their efforts are addressed over a significantly longer time-period.

Absolute numbers aside, the real issue is whether response and recovery activities had a sufficient number of volunteers related to the needs. Needs were addressed at the volunteer sites and throughout the community during response. Yet, recovery needs throughout the community were not being addressed. Volunteers were involved in recovery, but there was fluctuation in the numbers of them day-to-day and week-to-week. Thus, in general, there were enough volunteers to address unmet needs in response, but not in recovery.

The second aspect of volunteer engagement considered was the length and intensity, or level of activity, of volunteerism in response and recovery. This study found that there was variation in the length of time response volunteers spent volunteering. Some response volunteers were involved for 12 hours a day over the entire week-long response, while others only volunteered for a few hours one day, or a few days. Longer periods of time volunteering throughout response and having the availability to work those longer periods seemed related to being in a leadership position.

There was also variation in the length of time spent volunteering in recovery. The shortest length of time an individual volunteered during recovery was a single day compared to the longest amount of time of several months. Despite this wide range, most recovery participants in this study volunteered in Texas for 1-3 weeks. Out-of-state recovery volunteers worked all day, six days a week. Comparatively, local recovery volunteers tended to volunteer a few days a week, rather than full-time, even while the local volunteers tended to be involved for overall longer lengths of time. The volunteers who worked over longer periods seemed more likely to be from out-of-state and, like in response, to be available. In recovery, volunteers were also constrained in how long the voluntary organization would allow them to volunteer. Of course, variation in the length of time spent volunteering is dictated by the length of each phase.

The third aspect of volunteer engagement explored by this study was the prevalence of different types of volunteers. Traditionally, the existing disaster volunteer literature has categorized volunteers by a number of different characteristics including affiliated/ non-affiliated, trained/ untrained, or spontaneous/ deployed (e.g., Lowe & Fothergill, 2003; Phillips, 1986; Vigo, 1996). The volunteers engaged in East Texas were categorized along these lines, and differences in the numbers of types of volunteers engaged during response and recovery were found when this step was taken. The majority of response volunteers were non-affiliated compared to the majority of recovery volunteers who were affiliated with a voluntary organization. The majority of response volunteers were untrained while the majority of recovery volunteers were trained (though often on-site the day they began volunteering). Response volunteers were mostly spontaneous whereas there were no spontaneous volunteers reported during recovery. The researcher also observed another useful way of categorizing volunteers throughout the analysis process – local versus out-of-state. In the case of East Texas, the majority of response volunteers were local whereas the majority of recovery volunteers were from out-of-state.

The final aspect of volunteer engagement this study considered was a better understanding of the tasks and activities that volunteers engaged in at each site. During both response and recovery, volunteers were only engaged at volunteer sites. In response, volunteers congregated with other volunteers and established ‘volunteer sites’ where they had not already been established, not engaging with survivors at their home. Some volunteer sites were out in the impacted community while others were at the headquarters of voluntary organizations engaged in the disaster. Unlike in response, the majority of recovery volunteer sites were located at individual homes where work needed to be done and, secondarily, at local churches or the

operation bases of voluntary organizations. In response, the establishment of volunteer sites was largely improvised whereas recovery sites were established by voluntary organizations.

Response volunteers engaged in tasks at volunteer sites that required no special training and used latent skills (when appropriate). Response volunteers were quick to improvise when necessary in order to meet the needs of the volunteer sites. In the absence of established organizations running volunteer sites, volunteers ran them on their own. They did not wait for officials or representatives from voluntary organizations to direct them, they simply saw unmet needs and found a way to address them. This approach ran counter to observations about volunteer engagement in recovery.

The tasks that volunteers engaged in during recovery required training. In the cases explored in this study, training was provided by the organization, on-site, when the individual arrived to volunteer. Some organizations offered training opportunities off-site for volunteers prior to their volunteer engagement, but this was less common. The researcher did not find any difference between individuals who were trained off-site versus on-site. Unlike response volunteers, recovery volunteers did little to improvise their work. Volunteers sought instructions about what needed to be done at a volunteer site from the leader of the site. Recovery sites were well-coordinated. There was a list of what needed to be accomplished at each site, each day, and the site leaders coordinated their volunteers so that those tasks would be accomplished. Improvisation only occurred when something unexpected came up at the site (e.g., there was more damage to a house than had initially been expected) but again, this improvisation fell to the site leaders to coordinate, rather than the volunteers.

One last observation about volunteer engagement in East Texas is that the researcher did not encounter any volunteers that had volunteered in both the response and the recovery. The

literature has not addressed if individual who volunteer in response also tend to volunteer in recovery. The findings from this case suggest that the individuals who volunteer during response are not the same individuals who volunteer in recovery.

This study found there were more differences than similarities in how volunteers engaged during response and recovery. These differences are outlined in Table 5.

Table 5

Volunteer Engagement in Response Compared to Recovery

Engagement	Response	Recovery
Overall volunteer numbers	Enough volunteers to meet the needs of the community.	Not enough volunteers to meet the needs of the community.
Duration	Ranged between a few hours to all day the entire length of response.	Ranged between a few days to several months. Local volunteers tended to volunteer all day for a few days a week. Out-of-state volunteers volunteered all day for an average of 1-3 weeks.
Prevalence of volunteer types	Majority non-affiliated, untrained, spontaneous, and local.	Majority affiliated, trained, out-of-state. No spontaneous volunteers.
Tasks & Activities	Worked with groups of individuals while at group sites. Tasks did not require training. Volunteers were part of volunteer management at volunteer sites.	Working one-on-one with individuals in their homes. Tasks required training. Volunteers were managed by the organization overseeing the volunteer site.

Considering these differences, it was appropriate to compare the factors that explained volunteer engagement in response and recovery in the case of East Texas.

Response and Recovery Factors Comparison

This study found a number of factors that explained volunteer engagement during response and recovery in East Texas. The factors related to volunteer engagement largely varied between the two phases with only three factors found to explain volunteer engagement in both phases. Table 6 lists factors that were found to influence engagement and in which phase they were applicable.

Table 6

Summary of Factors Explaining Volunteer Engagement in Response and Recovery

Factor	Response	Recovery
Individual Factors		
Pre-Disaster Altruism	X	
Pre-Disaster Skills	X	
Pre-Disaster Latent Knowledge	X	
Pre-Disaster Integration	X	
Group Membership		X
Motivation to Volunteer	X	X
Goodness-of-Fit with Volunteer Site	X	
Goodness-of-Fit with Voluntary Organization		X
Logistics: Availability	X	X
Logistics: Mobility	X	
Logistics: Accommodations	X	
Organizational Factors		
Goodness-of-Fit with Community		X
Organizational Capacity: Personnel		X
Organizational Capacity: Funding		X
Organizational Capacity: Operations Location		X
Integration		X
Logistical Support Provided to Volunteers		X
Community-Wide Factors		
Impacts & Needs	X	
Media	X	X
Physical Conditions		X

The following sections will further explain each of these factors as they relate to volunteer engagement and make comparisons between each phase where appropriate.

Factors That Mattered and Were the Same in Response and Recovery

There were only two factors found that explained volunteer engagement in both response and recovery in the case of East Texas that manifested the similarly. The first were the motivations of the volunteers. The initial motivations of the individuals to volunteer, in both response and recovery, were an important factor that explained their engagement. Each volunteer differed slightly in their motivations, but generally local volunteers in response were motivated to help because they had sympathy for the survivors. Comparatively, local recovery volunteers were motivated to help their community generally, not because they were specifically looking to help with disaster recovery. Local volunteers were looking for any volunteer opportunity to benefit their community, it just so happened that in this pursuit they found there was a need for recovery assistance. Out-of-state volunteers, in both response and recovery, were motivated by a desire to help disaster survivors generally and wanting the opportunity to travel. In fact, the only volunteers that were motivated to help because they had a specific awareness of unmet needs in the community related to the flooding were the local response volunteers.

The second factor, and arguably the most important factor, that explained volunteer engagement in both response and recovery was the availability of the individual volunteer. Every participant in this study explained that the length and timing of their engagement was first and foremost determined by their availability. The majority of volunteers in both response and recovery reported that due to personal circumstances (e.g., being retired, having vacation time, being unemployed) they had time to volunteer. During response, the availability of local volunteers was facilitated by widespread school and work closures throughout the community

due to the flooding. Unexpected cancellations allowed locals, who had not been impacted themselves, to have time to volunteer. Both volunteers and informants noted that once schools and businesses began to open again, locals stopped volunteering. This drop-off in volunteers also coincided with the end of response. As in response, recovery volunteers were primarily individuals with life circumstances that allowed them to have flexible schedules (e.g., being retired, being on school vacation). It was critical for out-of-state volunteers to have longer periods of availability so that the cost and travel time to Texas was worth the effort. In both response and recovery, the availability of the volunteer was a primary factor in determining when and for how long they would be able to volunteer.

Factors That Mattered but Were Different in Response and Recovery

The majority of factors found to explain volunteer engagement in response differed from that were found to explain volunteer engagement in recovery. Some of these factors were found in both phases but manifested differently. This section explores these similarities and differences.

In recovery, the physical conditions in the community, specifically the weather, was found to be a factor explaining volunteer engagement. In response the physical conditions in the community that influenced volunteer engagement was not the weather, but rather the ability of individuals to navigate the flooded community to get to volunteer sites (i.e., their mobility). In response, some volunteers had challenges bypassing flooded roads to get to volunteer sites but they were able to find alternative routes or volunteer sites. Some individuals reported having to postpone volunteering until the roads around their homes were cleared. Such conditions were not an issue for local volunteers during recovery.

Relatedly, the second factor that was found in both response and recovery but manifested differently were logistics (i.e., the ability of the volunteer to travel to the volunteer site and

accommodations for volunteers while in Texas). In both phases, logistics varied depending on whether the volunteer was local or from out-of-state. Local volunteers in both response and recovery provided their own transportation to the volunteer site. Travel for out-of-state volunteers was a more involved process. Out-of-state volunteers in both response and recovery flew to Texas. In response, the few out-of-state volunteers in this study had their airfare paid for and coordinated by their affiliated organization. In recovery, some volunteers were responsible for purchasing and booking their own airfare while some volunteers had theirs purchased and booked by the organization with which they were volunteering. Ultimately for out-of-state volunteers in recovery, the cost associated with airfare to Texas was dependent on the policy of their affiliated organization.

Accommodations were only needed for out-of-state volunteers as local volunteers were able to go home at the end of each work day. The few out-of-state response volunteers involved stayed at hotels around the Houston area in rooms rented for them by their affiliated organization. Out-of-state recovery volunteers stayed at local churches rather than hotels and any costs associated with these accommodations and the process of securing the accommodations were taken care of by the voluntary organization, rather than the volunteers.

None of the out-of-state volunteers indicated having any difficulties securing their travel and accommodations. It is unclear the extent to which this ease was a product of the situational context. The flooding that took place in East Texas, particularly Houston, did not impact the community's tourism infrastructure. In other words, the airports, car rental companies, and hotels happened to be unaffected by the flooding. And, since Houston is such a large city, there were plenty of available flights and hotel rooms throughout the area. This context suggests that Houston was in a good position to accommodate out-of-state volunteers in response. Voluntary

organizations in recovery provided logistical support to their volunteers. Volunteer support varied depending on the organizational model of the organization. Some organizations organized and provided transportation and accommodations on behalf of their volunteers while other organizations only provided accommodations. Volunteers stated that the model of the organization (i.e., logistical support provided by the organization) was a factor in their decision to volunteer with the organization.

A third factor found in both phases was the media coverage of the event. In response, the media facilitated volunteer engagement by directing individuals where to go and who to call if they wanted to volunteer. As time moved away from the response, informants reported there was less media coverage. They believed the minimal coverage contributed to the lack of awareness of need and volunteers in recovery.

Fourth, integration was found to explain engagement in both response and recovery with one major difference. In response, it was the integration of the individual volunteers whereas in recovery it was the integration of the voluntary organization that influenced the overall volunteer engagement in the case of East Texas. Closely related to integration was a factor found in recovery, group membership. The majority of volunteers were a member of a group that directly led to their involvement in the recovery process. In recovery, it was not the integration of the volunteer into various social network but rather the individual's actual membership in an organization. When their organization decided to deploy to Texas, they were notified and agreed to volunteer. In response, the fact that an individual was integrated into a community *pre-disaster* was important. In recovery, however, the timing of when the individual joined the group did not seem to matter. Some volunteers had been members of the organizations for years while others had joined after the flooding had occurred. In other words, in recovery the length of time

or when an individual became a group member did not seem to explain their engagement, just that they were a member of the group.

The fifth factor, altruism was only found to explain engagement in response, not recovery. Volunteers attributed their decision to immediately start helping the community to their altruistic tendency. It would seem that this altruism helped drive volunteers to engage even without a voluntary organization asking or recruiting volunteers. Recovery volunteers may too have been altruistic but the data did not reveal altruism to be a driving motivator for their volunteerism.

Next, the pre-disaster factor of latent skills that emerged in response was not relevant in recovery. Response volunteers used pre-disaster latent skills while they were working whereas the recovery volunteers in this study did not report using pre-disaster skills. Recovery volunteers were trained by voluntary organizations at volunteer sites in the skills needed to complete the activities in which they would engage.

Seventh, latent knowledge of the community and previous disaster experiences were found to inform volunteer engagement in response whereas latent knowledge was not found at all to be a factor in recovery. Local knowledge was irrelevant as the vast majority of volunteers were from out-of-state. Some volunteers in recovery had volunteered previously but they did not speak about those experiences as something that explained their current engagement in East Texas.

In the case of East Texas, response volunteers sought a goodness-of-fit with a volunteer site whereas recovery volunteers sought a goodness-of-fit with a voluntary organization. In response, volunteers were motivated out of sympathy for survivors and felt an urgency in addressing their unmet needs. A few local volunteers made an effort to find organizations that

were accepting volunteers but, when they did not immediately find volunteer organization, they moved on and found a volunteer site on their own. It was in this process of finding volunteer sites on their own that their latent knowledge, along with their pre-disaster integration, was utilized. In recovery, volunteers were only interested in finding a goodness-of-fit with a voluntary organization, not a volunteer site. None of the recovery participants had spontaneously volunteered, they all had first found the organization either through recruitment materials distributed by the organization, through their social networks, or because they had previously volunteered with the organization. In fact, in most cases, recovery volunteers did not know anything about the volunteer sites where they would be working until they arrived in Texas. Finding a goodness-of-fit with a voluntary organization was critical in explaining the engagement of recovery volunteers because their engagement from that point forward was dictated by the organization.

It became clear during analysis that in order to explain volunteer engagement in recovery it was necessary to understand organization engagement in recovery. This was not necessary in response as the organizations did not play a central role. In recovery, organizations needed find a goodness-of-fit with the community.

All out-of-state voluntary organizations engaged in the recovery had a disaster-specific mission. These organizations worked within their usual structure engaging in their typical tasks and activities. In response, out-of-state groups engaged when they arrived in the community. The urgency of needs in response required groups to quickly decide if, when, and where they would deploy too in order to meet response needs. In recovery, however, organizations were slower and more deliberative in their decision process. Since recovery needs are less urgent, as compared to response, organizations had time to compare the stage of recovery in the community compared to

the services offered by their organization, the overall need of the community, and their organizational capacity. Organizations engaged during recovery were cognizant of their organizational capacity. This study found there were three main components to an organization's capacity that helped explain their engagement in recovery including their funding, personnel, base of operations.

The perception of impacts and needs among individuals during response was the primary motivation for individuals to volunteer. Volunteers were not aware of the *actual* impacts and needs of the community before deciding to engage. Rather, they perceived there were unmet needs based on media coverage or because their previous disaster experience led them to assume there would be a need for volunteers. Once volunteers arrived at a volunteer site, they became aware of the *actual* unmet needs and that awareness motivated them to continue to volunteer throughout response. In recovery, impacts and needs influenced organizational engagement as explained in the goodness-of-fit section but, surprisingly, these were not factors found to explain volunteer engagement. Recovery volunteers, both local and from out-of-state, were unaware of the extent of recovery needs in the community before engaging. Once they arrived, they learned about the actual needs of the community which, like in response, motivated them throughout each work day. Learning about the needs in recovery, however, did not seem to lead to longer periods of engagement than originally planned.

One final point to consider is that it was not only the impacts and needs in East Texas that needed to be considered but also the needs of the communities undergoing recovery across the country. Representatives of voluntary organizations with disaster-missions spoke about how the frequent disasters and high number of unmet needs around the country affected their organizational capacity and their ability to help in East Texas. They also reported they felt the

high number of disasters around the country had caused “volunteer fatigue”. In other words, their volunteers were burned out from so many deployments. This seemed to be a problem particularly for recovery since the majority of volunteers were from out-of-state. There was also speculation among representatives of local voluntary organizations that the local volunteers in East Texas were suffering from a similar phenomenon. Considering the high number of floods that had occurred over the course of 13-months, informants felt that the local volunteers had been burned out during the multiple responses.

Perhaps the most significant difference found between response and recovery was the role of organizations in explaining volunteer engagement. No organizational factors were found to be essential to understanding volunteer engagement during response, yet they were the critical to recovery engagement. There were certainly organizations involved during response, but they were not overseeing and coordinating volunteer involvement to anywhere near the same extent as organizations did during recovery. There were few affiliated volunteers in response but volunteers were largely autonomous at volunteer sites. All volunteers engaged in recovery were doing so through an established voluntary organization. Moreover, volunteers expected organizations to be stable, well-organized, and well-run. This was not the case in response. Volunteers seemed to expect less from response organizations because they viewed response as an evolving time period and they did not seem to notice how few organizations were involved or that those organizations were not coordinating volunteers where they were working.

Generally, the factors that mattered in response were not the same factors that mattered in recovery. It was outside the scope of this study to determine exactly which factors were more significant than others in explaining volunteer engagement but logic dictates that some are more

influential than others and for certain aspects of volunteer engagement. Future research should consider which of these factors have more explanatory power as compared to others.

Themes but Not Likely to Be Factors

Throughout the data analysis process, a number of themes emerged but did not explain volunteer engagement in response or recovery. In response, these themes included challenges, organizational partnerships, volunteer recruitment, and government action. Themes in recovery included volunteer infrastructure— specifically virtual volunteer recruitment, Voluntary Organizations Active in Disaster, and Long-term Recovery Committees, and government action. Nonetheless, it seemed important to report these themes considering one goal of this study is to provide researchers with a list of factors to test in future research. Future researchers who wish to study factors related to volunteer engagement should be aware of these themes and consider including them when systematically testing engagement factors.

Models

This study produced two conceptual models. In Figure 3 the top model shows the factors that were found to explain volunteer engagement in response while the other model shows the factors that were found to explain volunteer engagement in recovery.

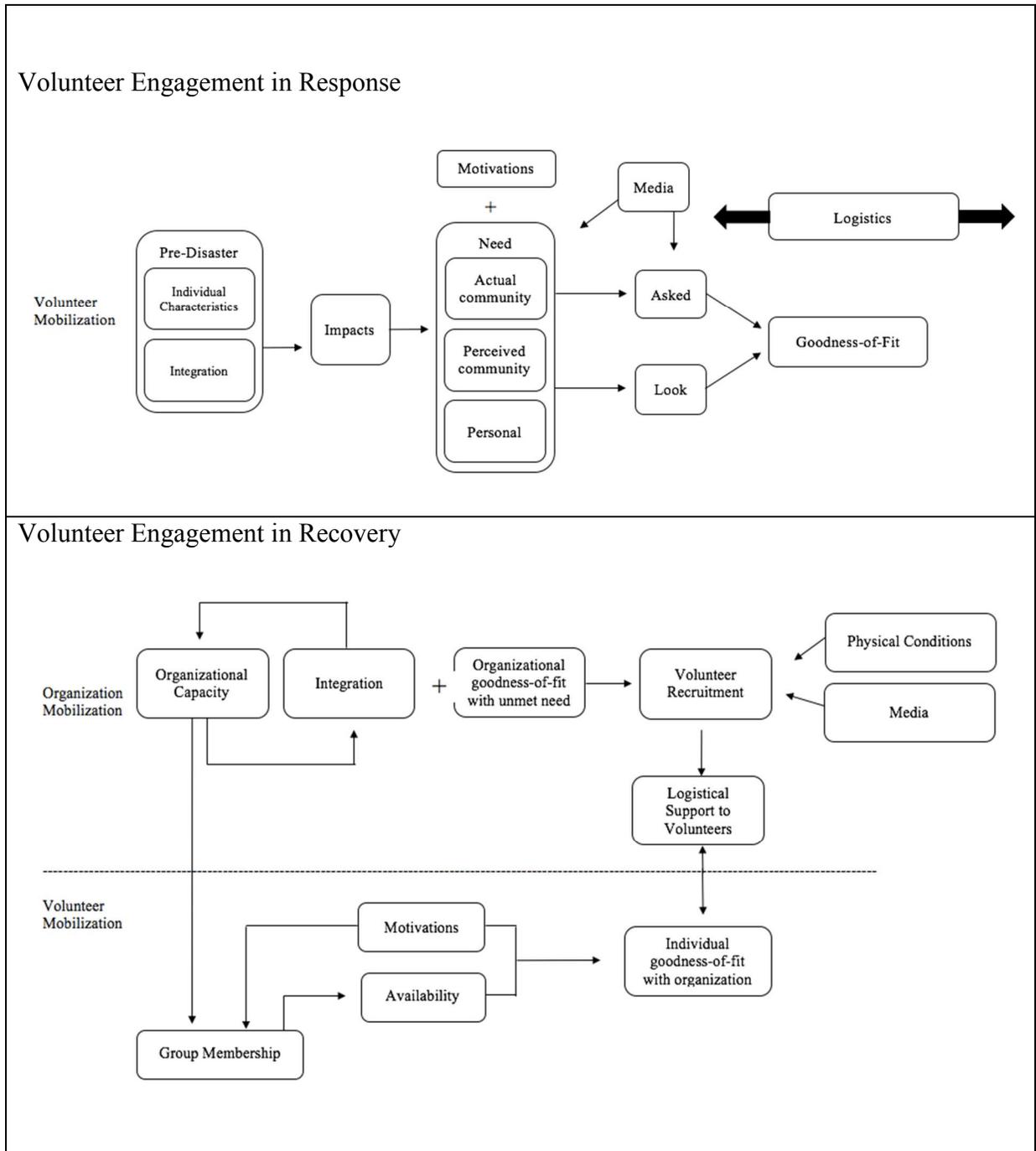


Figure 4: Response and recovery models at a glance.

These models are a useful product of this research because they show the relationship between factors that mattered in the case of East Texas. The side-by-side comparison of factors influencing volunteer engagement there demonstrate the primary differences between response and recovery. The response model portrays a process that is relatively linear where volunteer

engagement is primarily driven by individuals. Comparatively, the recovery model portrays a process that is less linear and driven primarily by organizations.

These models explain both how each individual engaged during either response or recovery in East Texas but they also explain the overall volunteer engagement in East Texas which broadens the usefulness in using them to understand what happened there. Any engagement question can be answered by some combination of factors in each model including, for example; how long an individual volunteered, where they volunteered, which tasks they did, and how they got to the volunteer site. Similarly, any questions about the overall engagement of volunteers in the case of East Texas such as: how long response volunteers helped, where volunteers congregated, and the type of volunteers that helped in recovery, can be explained with knowledge of the factors in these models.

These models were produced through the data analysis process of drawing and memoing. This process allowed the researcher to determine that the models were useful in demonstrating the process for both how individual volunteers engage but also the overall volunteer engagement in response and recovery. Future research will need to assess each of these models to determine their applicability to other disasters. It is expected that future research will be able to refine these models and expand on their usefulness.

Conclusion

This chapter compared the findings of volunteer engagement and the factors that were found to explain volunteer engagement in response and recovery. This study found that both volunteer engagement and the factors that explained that engagement, in the case of East Texas, were different in response and recovery. The next chapter will compare the findings of this study with the literature and provide recommendations for future research.

CHAPTER TWELVE: DISCUSSION AND CONCLUSION

A primary goal of this study is to provide a list of factors, based on the findings from the case of East Texas and the literature, for future research to systematically test. To that end, this Chapter compares the findings of this study to the disaster and general volunteer literature. The first section discusses the connections between the disaster literature and the findings from East Texas. The second section compares the findings of this study to the general volunteer literature. Finally, the theoretical implications of this study and agenda for future research is suggested.

Connection to Existing Literature

In this chapter, the findings from the case of East Texas will be considered in comparison to relevant literature. Since this study took a grounded theory approach, the researcher made efforts to avoid having these categories guide data collection and analysis. Now, however, the data has been analyzed and it is appropriate to return to the literature and reconcile the findings of this study within broader bodies of work (Charmaz, 2006). Chapter Two provided an overview of the existing disaster volunteer literature. This section reengages with that literature to determine where there is support for the findings from East Texas, where nuance has been added, and where this study has provided new insights.

Volunteer Engagement

The literature to this point has made minimal effort to describe volunteer engagement in response and recovery outside of acknowledging that volunteerism occurs in both phases. The literature has not offered a comparison between phases or the factors that promote response or recovery engagement. This study began to address this gap by describing volunteer engagement in the case of East Texas in response and later in recovery. The study found that comparing engagement at these two stages revealed significant differences between each phase.

The description of volunteer engagement in this study did reveal similar themes to what one would expect based on a reading of the literature. There were both affiliated and spontaneous volunteers participating in response (Barsky *et al.*, 2007; Fernandez, Barbera, & van Dorp, 2006; Phillips, 2015; Tierney, Lindell, & Perry, 2001). There was convergence to the impacted areas and emergence within the community (Barton, 1969; Dynes & Quarantelli, 1980; Haas & Drabek, 1970; Taylor, Zurcher, & Key, 1970). And, there were fewer volunteers as time moved away from response and into recovery (e.g., Dynes & Quarantelli, 1977). Yet, the extent to which volunteer engagement took place was significantly smaller in scale than would be expected based on a reading of the literature.

The process of data analysis allowed the researcher to reflect on her experience with the disaster literature and the extent to which it had resulted in her having implicit expectations of what she would see in response to the East Texas flood event. The literature has described the number of volunteers who spontaneously arrive in a disaster as an “onslaught” (Phillips, 2015, p. 444), “swarm” (Phillips, 2015, p. 454), and “mass assault” (Barton, 1969). This type of language to describe volunteer involvement in disasters is common (e.g., Drabek, 1986; Tierney, Lindell, and Prater, 2001; National Research Council, 2006). The researcher had some expectation that she would see “swarms” of volunteers engaged in East Texas when she arrived. Yet, while there were spontaneous volunteers engaged during response, the flooding did not generate anywhere near the overall volunteer numbers that would be expected when using those types of terms as a baseline of what to expect. Although the volunteer landscape in East Texas was dominated by spontaneous volunteers (as compared to affiliated volunteers), there was far from a “swarm”, “onslaught”, or “mass assault”.

Some practitioners have gone so far as to say they do not want spontaneous volunteers involved at all in response efforts (e.g., Barksy, Trainor, Torres, & Aguirre, 2007; Dynes, 1994; Kendra & Wachtendorf, 2001) because they can cause logistical problems at the scene (e.g., Dynes, 1994; Kendra & Wachtendorf, 2001; Neal, 1994) and may fail to integrate into the formal emergency management process and thus get in the way of first responders (e.g., Auf der Heide, 1989; Drabek, 1985; Fernandez, Barbera, & van Dorp, 2006). The researcher, however, found volunteers were not in the way and had organized themselves so there was not redundancy in tasks or apparent unmet needs at volunteer sites in response. Individuals who had spontaneously volunteered all reported immediately finding a volunteer site. They certainly were not a nuisance as some, like Argothy (2003), have reported. Volunteers were not all over the scene. Instead, the vast majority had quickly begun working at a volunteer site that had found a work to do.

The researcher was concerned that because the flooding was so widespread perhaps she was not in the same geographic location as these problematic spontaneous volunteers. On two occasions, the researcher asked local police officers, located at blocked off roads and in a neighborhood that had been impacted by flooding, if there had been individuals showing up looking to help. In both instances, the officers reported that a “few” individuals showed up and they had directed them to the Red Cross. These few spontaneous volunteers certainly had not caused problems for first responders. There were spontaneous volunteers and improvisation in the development of structures and tasks but it was orderly, self-organized and initiated, and, in every instance, appeared to be addressing unmet needs in the community. While this may have been true for other disasters, the research in East Texas found no evidence of this issue either from the researcher’s observations or from conversations with volunteers and key informants.

True to what the literature suggests there were certainly fewer volunteers in East Texas engaging in recovery work than there had been during response (e.g., Argothy, 2003; Taylor, Zurcher, & Key, 1970). The researcher's memoing during data analysis demonstrated that she had indeed expected this phenomenon just as she had a "mass assault" during response. Descriptions of recovery volunteerism paint a picture of many volunteers engaging on a variety of tasks throughout the entire recovery time-period to the extent that they have been described as, "the backbone of disaster recovery" (Phillips, 2015, 445). However, there were *significantly* fewer volunteers in recovery than would be expected. Across three counties, the researcher was only able to find a few dozen recovery volunteers who were currently engaging in recovery during the week of the second round of interviews. Possible explanations for the extremely low volunteer turnout have been discussed, but, regardless of literature-based explanations of low turnout, the literature does not suggest there would be so few volunteers in recovery to the point of voluntary organizations shutting down operations even when there were still unmet needs in the community. The researcher had certainly not expected turnout to be *that* low.

The significance of these findings should be interpreted with caution since that they are based on a single case. There are characteristics of the situation in East Texas that suggest perhaps it may be an atypical case. For instance, the number of disasters the area experienced in such a short period of time and over such a widespread geographic area is not typical of most disaster impacted areas. Yet, when the researcher probed informants, the majority of whom had volunteered or been involved in numerous disasters across the country, they said the volunteer engagement in East Texas aligned with their experiences following other disasters around the country. In other words, they did not identify anything about their organization's involvement in East Texas, or the overall volunteer engagement in either response or recovery that was different

from their experiences in other disasters. The only factor that initially stood out as unique to some informants was the high heat impacting their ability to work during recovery but with further probing informants acknowledged that this had also been true to their past efforts related to recovery.

The discrepancy between the literature and the data collected in East Texas raises questions as to the accuracy of, or at least specificity in, how volunteer engagement in response and recovery has been characterized in the literature. Assuming the informants in this study are correct in their assertions that East Texas is typical of volunteer engagement around the country, then there is a clear need for additional research because it could potentially “upend” the way volunteer engagement in disasters is generally described by scholars and practitioners alike. Future research should consider not only the factors that explain volunteer engagement, but maybe, and perhaps first, focus more on describing volunteer engagement at each of these stages where volunteers are so important.

Factors

Before research began the researcher reviewed the literature to find factors that may be involved in understanding engagement. Scholars had not intended their research to identify factors that explained volunteer engagement, but the researcher induced five possible categories of factors from the disaster volunteerism literature: demographics, previous volunteer experience, volunteer motivations, logistical considerations, and event characteristics. Some factors that were found to influence volunteer engagement in the case of East Texas have some minimal support in the existing literature while others have not before been suggested in the literature. The following sections will revisit the categories of factors the researcher identified in Chapter Two.

Demographics

The first category identified in the literature review was a group of factors labeled as demographics including sex/ gender, age, race, religion, income, and education. The literature has produced inconsistent findings related to demographics as predictors of volunteerism in response (Aguirre *et al.*, 1995; Aitken *et al.*, 2012; Arbon *et al.*, 2006; Cuddy *et al.*, 2007; Dynes, Quarantelli, & Wenger, 1988; Michel, 2007; Ocak *et al.*, 2013; Plummer *et al.*, 2008; Rotolo & Berg, 2011; Steerman & Cole, 2009; Vigo, 1996; Ward, 2013) and recovery (Lueck & Peek, 2012; Nelan & Grineski, 2013; Sargisson *et al.*, 2012; St John & Fuchs, 2002). The research in East Texas did not find any demographic factors that explained volunteer engagement during either response and recovery.

Previous Disaster Experience

Previous volunteer experience has been found to be a predictor of volunteerism in both response and recovery (Brand, et al, 2008; Fothergill *et al.*, 2005; Gardner, 2008; Michel, 2007; Nelan & Grineski, 2013; Plummer *et al.*, 2008; Rotolo & Berg, 2011; Sargisson *et al.*, 2012; St John & Fuchs, 2002; Ward, 2013) but its relationship to volunteer engagement had not been explored. Through the course of data analysis, the researcher found that previous volunteer experience related to explaining volunteer engagement in two ways. The first was in response, the researcher considered ‘previous volunteer experience’ to represent an individual’s pre-disaster altruism. The second was as that previous volunteer experience related to the volunteer’s latent knowledge about disaster volunteering.

Motivations

Volunteer motivations have been a focal point of disaster volunteerism research in both response and recovery (Aguirre & Bolton, 2013; Beyerlein & Sikkink, 2008; Brand *et al.*, 2008;

Brzozowski, 2013; Carlile *et al.*, 2014; Fothergill *et al.*, 2005; Irvine, 2006; Lowe & Fothergill, 2003; McLennan & Birtch, 2009; Michel, 2007; Nelan & Grineski, 2013; Steerman & Cole, 2009; Waikayi *et al.*, 2012). This study found that volunteers in East Texas were motivated for many of the same reasons identified in the disaster volunteerism literature. The existing literature has not made efforts to connect volunteer motivations to specific aspects of engagement. Importantly, this study was able to explain the role of volunteer motivation in volunteer engagement. The findings from East Texas suggest that depending on where an individual is from and which phase they engage in, their motivations vary.

Logistics

The initial category of logistics as described in the literature review encapsulated a number of different factors. The findings in this study add support and clarity to the existing research about volunteerism logistics, as well as further nuance. This study supported that there are often non-local volunteers (Arbon *et al.*, 2006; Aitken *et al.*, 2012; Nelan & Grineski, 2013; Rigg *et al.*, 2005; Sloand *et al.*, 2012; Vijayakumar & Kumar, 2008; Wauty, de Ville de Goyet, & Chaze, 1977) involved in both response and recovery. Yet, this study contributed much needed nuance regarding the behavior of out-of-state volunteers and the role of their affiliation organizations in exploring the logistical issues that they do or do not, experience.

Some researchers have noted how volunteers come to arrive in the impacted community either spontaneously arriving on their own (Gardner, 2008; Lowe & Fothergill, 2003; Wauty, de Ville de Goyet, & Chaze, 1977), with their schools (Plummer *et al.*, 2008), employers (Aitken *et al.*, 2012; Soland *et al.*, 2012), churches, (Gardner, 2008) or voluntary organizations (Nelan & Grineski, 2013; Simons *et al.*, 2005) in both response and recovery. This study was able to

provide significant nuance to these observations and demonstrate how they related to volunteer engagement in East Texas.

The researcher initially included volunteer recruitment within the category of logistics. Through the course of data analysis, volunteer recruitment was subsumed under other factors. Media coverage of the event was found to explain volunteer engagement which is supported in Phillips (1986). Other researchers have found volunteers to be recruited through personal contacts (Wauty, de Ville de Goyet, & Chaze, 1977), local social networks (Gardner, 2008), and social media (Gardner, 2008; Hunt, et al, 2014) which in the case of East Texas were also found to be ways individuals found volunteer sites. This study added significant nuance to the role of volunteer recruitment in explaining volunteer engagement.

Hazard Event Characteristics

Observations made in the research about the role of impacts and needs in influencing volunteerism were included within a category called “hazard event characteristics”. Researchers found that immediacy of need in recovery (Carlile *et al.*, 2014), when individuals perceived a lack of a government led response (Brzozowski, 2013), and when individuals perceived the disaster to be large (Dynes, Quarantelli, & Wenger, 1988; Gardner, 2008; Lowe & Fothergill, 2003) in both response and recovery there were increased rates of volunteerism. This study found that there was a perception among response participants, especially local volunteers, that the flooding was a large disaster and that urgent help was needed and motivated them to volunteer. The majority of participants, however, in response reported that they believed the local government was responding sufficiently, so it seemed that did not factor into their decision to help. None of these perceptions were true in the case of recovery in East Texas.

In retrospect, there is support in the disaster literature for some of the factors found in the case of East Texas though, this study has suggested a number of new factors and clarified others. The few factors suggested by the literature that were not found to explain volunteer engagement in the case of East Texas, should still be explored by future researchers.

Outside of the disaster volunteerism literature a second body of literature was consulted—the general volunteerism literature. The researcher was unable to be completely removed from the disaster volunteerism literature, due to previous work on the subject, but had not previously studied the general volunteerism literature in any depth.

General Volunteerism Literature

In keeping with the grounded theory approach, after the researcher identified factors and developed the process models related to East Texas, general volunteerism literature (i.e., non-disaster related volunteerism) was consulted. The researcher assumed, for obvious reasons, that this body of literature would provide some insight to the research questions, perhaps even a formal theory of volunteer engagement or volunteer behavior (or a theory of a similar label). It seemed especially important to conduct this additional layer of literature review because the researcher had noticed that few scholars authoring the disaster volunteerism literature ever explicitly considered the general volunteerism literature as a theoretical foundation for their research, much less a specific volunteer engagement theory. When disaster researchers did reference the issue of the general volunteer literature, it was often to suggest there are differences between disaster volunteers and general volunteers (e.g., Britton, 1991; Lueck & Peek, 2012). Lueck & Peek explained this issue stating,

In a volunteer typology discussed by Britton (1991:402), disaster volunteers ‘fall outside the normal action set and organizations structure’ of general volunteer activities because of the trepidation they may feel before entering the disaster zone, potential risks they face

while in the field, and the costs of volunteering in terms of time, effort, and potential emotional and physical risks. (2012, p. 293)

Regardless of what other disaster researchers had found, a review of the general volunteer literature was conducted to 1) understand how “volunteer engagement” is understood in a non-disaster context, 2) consider the applicability of factors related to general volunteerism to disaster volunteerism, and 3) determine if an existing theory could explain the findings from East Texas.

Unfortunately, the researcher found the general volunteerism literature provided minimal insights related to these questions. First, the general volunteerism literature has not defined volunteer engagement (sometimes referred to as “volunteer behavior” or “volunteer involvement”) as it was defined in this study so it could not be compared to volunteer engagement in response and recovery. Second, general volunteerism studies focus primarily on determining the factors that predict volunteerism, rather than factors that explain volunteer engagement (when defined as more than just volunteering) (for exception see: McClintock, 2004; Merrill, 2006; Musick & Wilson, 2008; Rochester, Ellis Paine, & Howlett, 2010). There does not seem to be any widespread consensus or established list of factors that explains the various dimensions associated with volunteer engagement for the purposes of this study. Finally, the researcher was unable to find a theory that was helpful in understanding this study’s findings related to engagement or the factors associated with it within the general volunteerism literature. There seem to be two main reasons that the general volunteer literature did not provide answers to these questions.

First, many of the critiques of the disaster volunteer literature offered in Chapter Two apply equally to the general volunteerism literature. The general volunteer literature can be categorized into a few focus areas including defining volunteerism (e.g., Brown, 1990; Millette, 2005), volunteer management and retention (e.g., Bryen & Madden, 2006; Chambers, 2014;

Macduff, Netting, & O'Connor, 2009), descriptions of the individual experiences of volunteers (e.g., Holmes, 2014; Leonard, Onyx, & Maher, 2007), and identifying demographic factors that predict volunteerism (e.g., Horton-Smith, 1994). As was the case with the disaster volunteerism literature, general volunteerism researchers seemed to have focused on only a few areas of inquiry. The general volunteer literature also seems to be comprised primarily of “one off” studies that are not generalizable and do not build upon existing research, as was the case with the disaster volunteerism literature. It seems that the participation of researchers from psychology, sociology, and economics on these topics has contributed to a diversity of terminology. For example, the general volunteerism literature describes many types and categories of volunteers but researchers (typically from different disciplines) define the parameters for these categorizations differently. As in the disaster volunteerism literature, this makes interpretation of findings and the extent to which they are applicable to different types of volunteers difficult.

Second, a shift in volunteerism trends between the 20th and 21st centuries helps to explain why the majority of the general volunteerism literature is not applicable to disaster volunteerism. Before the 21st century, general volunteerism research was centered around the concept of “formal volunteerism” (i.e., structured and repetitive volunteering). Recently, researchers have observed a shift towards episodic volunteerism (Brundy, 2005; Leonard, Onyx, & Maher, 2007; Macduff, Netting, & O'Connor, 2009; Hustinx & Lammertyn, 2003; Hustinx & Meijis, 2011). Episodic volunteers are those that volunteer more sporadically and often in the absence of a formal volunteer opportunity or organization (Macduff, Netting, & O'Connor, 2009). This has signaled a shift in the duration of volunteerism and motivations of volunteers (Macduff, Netting, & O'Connor, 2009). Macduff, Netting & O'Connor described the new trends in volunteerism,

Volunteers are not always willing to follow the rules of traditional hierarchies. They rarely wait to be trained to provide a needed service. Things have changed regarding why volunteers serve and what they desire from volunteer experiences (Brudney, 2005). (2009, pg. 402).

The description provided in the literature of episodic volunteerism aligns closely with disaster volunteers. In fact, spontaneous disaster volunteers were used by Macduff, Netting, & O'Connor (2009) as an example episodic volunteerism. They explained, "In addition, individuals are taking their community service instincts into their own hands, frequently bypassing established nonprofit and governmental volunteer programs... physicians go to disaster areas on their own time and simply treat people in need (Lowe & Fothergill, 2003)." (Macduff, Netting, & O'Connor, 2009, pg. 404-405). It would seem that it is not just spontaneous volunteers, but all disaster volunteers, including in the case of East Texas, who fall within the concept of episodic volunteering.

Unfortunately, volunteerism researchers have said, "little is known and much is speculated" (Cnaan & Handy, 2005, p. 29) about episodic volunteering and "theory-based research...is scant and the determinants of episodic volunteering are not well understood (Hyden, Dunn, Bax, Chambers, 2014, p. 45). Future disaster volunteer researchers, however, should keep in mind that although the majority of the general volunteerism research focusing on traditional, formal volunteerism, is not useful in understanding the volunteer engagement observed in East Texas or disaster volunteerism more broadly, the shift towards episodic volunteerism suggests researchers will increasingly focus on the phenomena. The findings of this emerging body of work may be of use to emergency management researchers. For now, however, it does not seem that the general volunteer literature provides any more depth or breadth of understanding than the disaster volunteerism literature provides.

Implications & Future Research

This study sought to consider how volunteers engage in disaster response and recovery, and the factors that influence their engagement in response and recovery. The findings from one case study cannot definitively answer these questions, but the case of East Texas flooding provided an opportunity to explore the topics.

This research provided much needed research on disaster volunteerism. Specifically, it explored volunteerism at two different stages where the work of volunteers is important—response and recovery. A primary finding of this study is that volunteer engagement in response and recovery is different. The study also identified factors that influenced volunteer engagement in the case of flooding in East Texas at each stage. Factors that influence volunteer engagement is a topic largely unexplored in the existing research and when research has considered this topic it has been in the absence of theory to guide the work and has left many lingering questions. The findings of this study provided additional support to some factors found in the existing literature but also contributed new findings and factors. Secondly, volunteer engagement in response is primarily driven by individual factors while volunteer engagement in recovery is primarily driven by organizational factors. In both response and recovery few factors were found at a community-wide level of analysis to explain volunteer engagement.

The goal of the study was to provide future researchers with a list of factors to systematically test that was the product of both the literature and the findings from the East Texas case. While this study has produced such a list, it was only exploratory and much more research is needed to ultimately demonstrate the value of the list produced. Yet, before examining the factors that explain volunteerism in response and recovery, it would be more appropriate for researchers to provide more and more detailed descriptions of volunteer

engagement at each stage. This study provided such a description for the case of East Texas and found that many aspects of volunteer engagement ran counter to what the literature had lead the researcher to expect. This reality suggests that further research studying the differences between engagement in response and recovery is needed.

Recovery typically takes place over a much longer period of time than response (Auf der Heide, 1989). The recovery work in East Texas is still ongoing at the time of this writing and likely will continue for several years. Future research should consider volunteer engagement in recovery over the full length of the recovery time-period to better understand differences in volunteer engagement at different points in the recovery process and how factors that explain that engagement over the course of recovery.

As researchers develop a more thorough and grounded understanding of volunteer engagement, they should also consider the factors that explain engagement. This study offers researchers a list of factors to systematically test. A complete list of factors suggested by the literature and East Texas is included in Appendix G. It should be noted that there are some overlapping factors in the table because the literature categorized factors differently than the factors that emerged in the case of East Texas.

Future research should systematically test these factors to determine the extent to which they explain volunteer engagement at each stage and across disasters. The findings presented here are the factors that were found to influence volunteer engagement in the case of East Texas, but these factors may not be the only ones that explain engagement in response and recovery. Future research should test the factors generated in this study in conjunction with those gleaned from the literature, and employ quantitative methods to determine which relationships hold constant across cases and which are most important. This type of analysis would provide a better

understanding of these factors, find additional factors, and/ or eliminate factors should they not be useful in understanding engagement across other cases. More and more rigorous research along these lines would help us better understand the factors that explain volunteer engagement in response and recovery.

Establishing a more complete understanding of volunteer engagement in response and recovery, as well as the factors that explain engagement, would lay a foundation for researchers to explore other important questions related to disaster volunteerism. A line of research that is built on a theoretically sound foundation about disaster volunteerism could ultimately lead to the transformation of how communities prepare for volunteer engagement and how volunteers are recruited and managed in response and recovery.

The disaster literature does not provide a sufficient theoretical basis upon which to explain response volunteer engagement, much less provide an understanding of volunteer engagement in recovery. So, one purpose of this research was to advance theory related to disaster volunteerism. This study was able to develop two process models and compile a list of factors. These products of data analysis suggest this area may be ripe for the development of a clearly articulated, grounded theory of disaster response volunteer engagement and another for disaster recovery volunteer engagement. Such theories would be useful in further study of volunteer engagement, but, also, again, would be useful in shaping practice.

Continued research and theoretical development will hold implications for practice. The efforts of researchers can be used to better understand how volunteers inform, help, or hinder the broader emergency management system in response and recovery and what might be done by practitioners to improve their involvement. Government agencies, including emergency management offices, often become involved in volunteer management, specifically management

of spontaneous volunteers (e.g., Fernandez, Barbera, & van Dorp, 2006). Research on the behavior of these disaster volunteers can help the management process be more effective. Outside of government many organizations could also benefit from a better understanding of the behavior of disaster volunteers. Many nonprofits rely on disaster volunteers to sustain their organizations and could use a more complete understanding of their volunteers.

Furthermore, as the factors that impact engagement in response and recovery are identified, it may be found that some can be manipulated to recruit and or manage volunteers. Some factors are likely to be beyond the control of those involved in volunteer management, e.g., poor weather conditions deterring volunteer engagement. Other factors, however, may well be within the influence of practitioners. Knowledge of these factors will enable those involved in volunteer management to anticipate how volunteer engagement is likely to progress and how they may influence increased or decreased engagement in response and/or recovery work along multiple dimensions.

In response, the pre-disaster presence of factors that influence volunteer engagement suggests that those looking to shape volunteer engagement have a natural opportunity to do so pre-disaster. If a community wishes to increase volunteerism during response (or decrease volunteerism), it seems that engaging with the pre-disaster factors is a place to start. Similarly, in recovery, there are actions that could be taken in non-disaster times that could influence volunteer engagement during recovery. One factor that emerged was group membership. If group membership is consistently found to be a significant explainer of engagement than recovery organizations may wish to dedicate more resources to volunteer recruitment in non-disaster times in preparation for future deployments. This study suggests that media coverage explains volunteer engagement in both response and recovery. If a community has limited resources, the

findings from East Texas, suggest that one way to influence volunteer engagement would be to plan for coordinated messaging in response and increased coverage of the recovery process. This study was exploratory and these findings will have to hold constant in future research to be applied confidently in practice. Nevertheless, these findings do suggest emergency managers, voluntary organizations, and those that work with volunteers can influence various aspects of volunteer engagement.

Experts have written about the need for more effective volunteer management/coordination during response. This logic has followed the assumption (supported in the literature) that spontaneous volunteers are many in number and a problem during response largely because of the concern that they are in the way of first responders, untrained, and may become victims themselves. While there is evidence that this has been an issue in previous disasters, the extent to which is a problem across disasters has not been systematically studied. Certainly efforts to prevent spontaneous volunteers from disrupting the work of first responders is a fine objective. However, it seems that perhaps the larger issue is coordinating volunteers to capitalize on volunteer labor and make their efforts more efficient and effective. This study suggests a shift in the narrative of spontaneous volunteers as a hindrance in response to spontaneous volunteers as a resource is appropriate. The ultimate goal should be to manage and coordinate volunteers so that their labor can be used to efficiently and effectively to address the needs of the community.

Conclusion

Volunteers are important contributors to response and recovery. Little is known about their engagement particularly in terms of comparing the engagement of response volunteers to recovery volunteers. This study sought to explore volunteer engagement in response and

recovery in the case of flooding experienced by a number of communities in East Texas following flooding in 2016. Data was gathered through interviews with 72 response and recovery volunteers and key informants, an analysis of key documents, and first-hand observations. This study developed a list of factors that were found to explain volunteer engagement in East Texas and factors suggested by the literature. These factors should be systematically tested in the future to expand our understanding of volunteer engagement.

The emergency management system needs volunteers to be involved in response and recovery. The United States takes a limited intervention approach to emergency management meaning that government involvement is intentionally limited (Comerio, 1998; Rubin, 2012; Sylves, 2010). Yet, individuals and households may find that their resources are overwhelmed and government assistance insufficient, leaving a gap in resources (Gould, 2014). The role of nonprofit organizations is to fill this gap; in large part by utilizing volunteer labor. The emergency management community should take interest in learning about disaster volunteerism; specifically, differences between volunteers that arrive first and those that come on scene later. And, this volunteer engagement should be understood within the broader response and recovery context. Considering the ongoing need for volunteer labor during and following disasters, the need for empirical research on disaster volunteerism is vast.

REFERENCES

- Aaron, D. (1966). The treachery of recollection: The inner and outer history. In R. H. Bremner (Ed.), *Essays on History and Literature* (pp. 3- 27). Columbus, Ohio: Ohio State University Press.
- Adams, L. M. (2007). Mental health needs of disaster volunteers: A plea for awareness. *Perspectives in Psychiatric Care*, 43(1), 52-54.
- Aguirre, B. E., Wenger, D. E., Glass, T. A., Diaz-Murillo, M., & Vigo, G. (1995). The social organization of search and rescue: Evidence from the Guadalajara gasoline explosion. *International Journal of Mass Emergencies and Disasters*, 13, 67-92.
- Aguirre, R. P., & Bolton, K. W. (2013). Why do they do it? A qualitative interpretive meta-synthesis of crisis volunteers' motivations. *Social Work Research*, 37(4), 327-338.
- Aitken, P., Leggat, P., Harley, H., Speare, R., & Leclercq, M. (2012). Human resources issues and Australian Disaster Medical Assistance Teams: Results of a national survey of team members. *Emerging Health Threats*, 5, 1-7.
- Alesch, D., Arendt, L., & Holly, J. (2009). *Managing for long-term community recovery in the aftermath of disaster*. Fairfax, VA: Public Entity Risk Institute.
- Arbon, P., Bobrowski, C., Zeitz, K., Hooper, C., Williams, J., & Thitchener, J. (2006). Australian nurses volunteering for the Sumatra-Andaman earthquake and tsunami of 2004: A review of experience and analysis of data collected by the Tsunami Volunteer Hotline. *Australasian Emergency Nursing Journal*, 9(4), 171-178.
- Argothy, V. (2003). Framing volunteerism in a consensus crisis: Mass media coverage of volunteers in the 9/11 response (Preliminary paper #335). Newark, DE: Disaster Research Center, University of Delaware.

- Auf der Heide, E. (1989). *Disaster response: Principles and preparation and coordination*. St. Louis, MO: The CV Mosby Company.
- Barsky, L. E., Trainor, J. E., Torres, M. R., & Aguirre, B. E. (2007). Managing volunteers: FEMA's Urban Search and Rescue programme and interactions with unaffiliated responders in disaster response. *Disasters*, 31(4), 495.
- Barton, A. H. (1969). *Communities in disaster: A sociological analysis of collective stress situations*. Garden City, NY: Doubleday and Company, Inc.
- Berg, R. (2009). Tropical cyclone report: Hurricane Ike, 1-14 September 2008. *National Hurricane Center*.
- Beyerlein, K., & Sikkink, D. (2008). Sorrow and solidarity: Why Americans volunteered for 9/11 relief efforts. *Social Problems*, 55(2), 190-215.
- Blumer, H. (1979). Comments on 'George Herbert Mead and the Chicago tradition of sociology'. *Symbolic Interaction*, 2(2), 21-22.
- Brand, M. W., Kerby, D., Elledge, B., Burton, T., Coles, D., & Dunn, A. (2008). Public health's response: Citizens' thoughts on volunteering. *Disaster Prevention and Management*, 17(1), 54-61.
- Britton, Neil R. 1991. "Permanent Disaster Volunteers: Where Do They Fit?" *Nonprofit and Voluntary Sector Quarterly* 20(4):395-414.
- Brodie, M., Weltzien, E., Altman, D., Blendon, R. J., & Benson, J. M. (2006). Experiences of Hurricane Katrina evacuees in Houston shelters: Implications for future planning. *American Journal of Public Health*, 96(8), 1402-1408.
- Brown, E. (1999). The scope of volunteer activity and public service. *Law and Contemporary Problems*, 62(4), 17-42.

- Brudney, J. L. (Ed.). (2005). *Emerging areas of volunteering: ARNOVA occasional paper series*, vol. 1, # 2. Indianapolis, IN: ARNOVA.
- Bryen, L., & Madden, K. (2006). Bounce-back of episodic volunteers: what makes episodic volunteers return? Working paper, no CPNS 32, Queensland University of Technology, Brisbane.
- Brzozowski, J. C. (2013). From paid work to volunteerism during one case of natural disaster: Interacting micro and macro level transitions. *Work*, 44(1), 85-88.
- Carlile, J. A., Mauseth, K., Clark, N. E., Cruz, J. L., & Thoburn, J. W. (2014). Local volunteerism and resilience following large-scale disaster: Outcomes for health support team volunteers in Haiti. *International Journal of Disaster Risk Science*, 5(3), 206-213.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage Publications.
- Clukey, L. (2010). Transformative experiences for Hurricanes Katrina and Rita disaster volunteers. *Disasters*, 34(3), 644-656.
- Cnaan, R. A., & Handy, F. (2005). Towards understanding episodic volunteering. *Vrijwillige Inzet Onderzocht*, 2(1), 29-35.
- Comerio, M. C. (1998). *Disaster hits home: New policy for urban housing recovery*. University of California Press.
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research (3rd ed.)*. Thousand Oaks, CA: SAGE Publications.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches (2nd ed.)*. Thousand Oaks, CA: SAGE Publications.

- Cuddy, A. C., Rock, M. S., & Norton, M. I. (2007). Aid in the aftermath of Hurricane Katrina: Inferences of secondary emotions and intergroup helping. *Group Processes & Intergroup Relations*, 10(1), 107-118.
- Dakin, R.E., & Tennant, D. (1968). Consistency of response by event-recall intervals and characteristics of respondents. *Sociological Quarterly*, 9, 73-84.
- Dixon, J. C., Singleton, R., & Straits, B. C. (2015). *The process of social research*. Oxford University Press.
- Drabek, T. E. (1985). Managing the emergency response. *Public Administration Review*, 45, 85-92.
- . (1986). *Human system responses to disaster: An inventory of sociological findings*. New York: Springer-Verlag.
- Drabek, T. E., & McEntire, D. A. (2003). Emergent phenomena and the sociology of disaster: Lessons, trends and opportunities from the research literature. *Disaster Prevention and Management*, 12(2), 97-112.
- Dynes, R. R. (1994). *Situational altruism: Toward an explanation of pathologies in disaster assistance (Preliminary paper #201)*. Newark, DE: Disaster Research Center, University of Delaware.
- Dynes, R. R., & Quarantelli, E. L. (1968). *Group behavior under stress: A required convergence of organizational and collective behavior perspectives*. Disaster Research Center, the Ohio State University.
- . (1977). *Helping behavior in large-scale disasters: A social organizational approach (Preliminary Paper #48)*. Newark, DE: Disaster Research Center, University of Delaware.

- . (1980). Helping behavior in large-scale disasters. In Smith, D. H., & Macaulay, J. (Eds.), *Participation in social and political activities* (pp. 339-354). San Francisco: Jossey-Bass Publishers.
- Dynes, R. R., Quarantelli, E. L., & Wenger, D. (1988). The organizational and public response to the September 1985 earthquake in Mexico City, Mexico. Final Report #35. Newark, DE: Disaster Research Center.
- Farrell, J. (2014). Moral outpouring: Shock and generosity in the aftermath of the BP Oil Spill. *Social Problems*, 61(3), 482-506.
- Federal Emergency Management Agency. (2015a). *Texas – Severe Storms, Tornadoes, Straight-line Winds, and Flooding FEMA-4223-DR*. Retrieved from <https://www.fema.gov/media-library-data/1433963729857-d1d4b9786ac9e86c56051747fab46a0e/PDARreportFEMA4223DRTX.pdf>
- Federal Emergency Management Agency. (2015b). [Map of counties with Presidential Disaster Declarations in Texas]. FEMA-4223-DR, Texas Disaster Declaration as of 08/05/2015. Retrieved from https://gis.fema.gov/maps/dec_4223.pdf
- Federal Emergency Management Agency. (2015c). *Texas – Severe Storms, Tornadoes, Straight-line Winds, and Flooding FEMA-4245-DR*. Retrieved from <https://www.fema.gov/media-library-data/1448984368526-692a625cc2e876f46ceecf7c1dd3783a/PDARreportFEMA4245DRTX.pdf>
- Federal Emergency Management Agency. (2015d). [Map of counties with Presidential Disaster Declarations in Texas]. FEMA-4245-DR, Texas Disaster Declaration as of 1/29/2016. Retrieved from https://gis.fema.gov/maps/dec_4245.pdf

Federal Emergency Management Agency. (2016a). *Texas – Severe Storms and Flooding:*

FEMA-4269-DR. Retrieved from <https://www.fema.gov/media-library-data/1464294493058-e2e76187b39a450c886ec502d7a44eb9/PDAReportFEMA4269DRTX.pdf>

Federal Emergency Management Agency. (2016b). [Map of counties with Presidential Disaster Declarations in Texas]. *FEMA-4269-DR, Texas Disaster Declaration as of 06/30/2016*.

Retrieved from https://gis.fema.gov/maps/dec_4269.pdf

Federal Emergency Management Agency. (2016c). [Map of counties with Presidential Disaster Declarations in Texas]. *FEMA-4272-DR, Texas Disaster Declaration as of 08/01/2016*.

Retrieved from https://gis.fema.gov/maps/dec_4272.pdf

Federal Emergency Management Agency. (2016d). *Texas – Severe Storms, Tornadoes, and*

Flooding: FEMA-4266-DR. Retrieved from [https://www.fema.gov/media-library-data/1460556248725-fc01158557a973f761ab1f1a284c421e/FEMA4266DRTX\(Expedited\).pdf](https://www.fema.gov/media-library-data/1460556248725-fc01158557a973f761ab1f1a284c421e/FEMA4266DRTX(Expedited).pdf)

Federal Emergency Management Agency. (2016e). *Texas – Severe Winter Storms, Tornadoes, Straight-line Winds, and Flooding: FEMA-4255-DR*. Retrieved from

<https://www.fema.gov/media-library-data/1459194656052-2ac0c80fd8f457614522131498d8c05c/FEMA4255DRTX.pdf>

Fernandez, L., Barbera, J., van Dorp, J. (2006). Spontaneous volunteer response to disasters: The benefits and consequences of good intentions. *Journal of Emergency Management*, 4(5), 57-68.

- Fothergill, A., Palumbo, M. V., Rambur, B., Reinier, K., & McIntosh, B. (2005). The volunteer potential of inactive nurses for disaster preparedness. *Public Health Nursing, 22*(5), 414-421.
- Fritz, C. & Mathewson, J. H. (1957). Convergence behavior in disasters: A problem in social control. Washington: National Academy of Sciences.
- Fulmer, T., Portelli, I., Foltin, G. L., Zimmerman, R., Chachkes, E., & Goldfrank, L. R. (2007). Organization-based incident management: Developing a disaster volunteer role on a university campus. *Disaster Management & Response, 5*(3), 74-81.
- Gardner, R. O. (2008). The Role of Grassroots Organizations and Volunteers in Southeast Texas After Hurricane Ike. Natural Hazards Center Quick Response Report.
- Gardner, R. O. (2013). The Emergent Organization: Improvisation and Order in Gulf Coast Disaster Relief. *Symbolic Interaction, 36*(3), 237-260.
- Glaser, B. G. (1978). *Theoretical sensitivity*. Mill Valley, CA: The Sociology Press.
- Gordon, R. L. (1975). *Interviewing: strategy, techniques, and tactics* (2nd ed.). Homewood, IL: The Dorsey Press.
- Gould, L. (2014). A conceptual model of the individual and household recovery process: Examining Hurricane Sandy. Thesis at North Dakota State University.
- Green, K.E., & Ireland, E. (1982). A case study of disaster-related emergent citizen groups: An examination of "vested interests" as a generating condition. (Preliminary paper #77). Disaster Research Center, University of Delaware, Newark, DE.
- Haas, J., & Drabek, T. (1970). Community disaster and system stress: A sociological perspective. In J. McGrath, (Ed.), *Social and psychological factors in stress* (pp. 264-286). New York: Holt, Rinehart and Winston, and Co.

- Holmes, K. (2014). 'It fitted in with our lifestyle': an investigation into episodic volunteering in the tourism sector. *Annals of Leisure Research*, 17(4), 443-459.
- Horton-Smith, D. (1994). Determinants of voluntary association participation and volunteering: A literature review. *Nonprofit and voluntary sector quarterly*, 23(3), 243-263.
- Hunt, S., Smith, K., Hamerton, H., & Sargisson, R. J. (2014). An incident control centre in action: Response to the Rena Oil Spill in New Zealand. *Journal of Contingencies and Crisis Management*, 22(1), 63-66.
- Hustinx, L., & Lammertyn, F. (2003). Collective and reflexive styles of volunteering: A sociological modernization perspective. *Voluntas*. 14(2), 167-187.
- Hyde, M. K., Dunn, J., Bax, C., & Chambers, S. K. (2016). Episodic volunteering and retention an integrated theoretical approach. *Nonprofit and Voluntary Sector Quarterly*, 45(1), 45-63.
- Irvine, L. (2006). Providing for pets during disasters, part II: Animal response volunteers in Gonzales, Louisiana. Natural Hazards Center Quick Response Report, 187.
- Kendra, J.M., & Wachtendorf, T. (2001) Rebel food... renegade supplies: Convergence after the World Trade Center attack. University of Delaware, Disaster Research Center, DRC Preliminary Paper No. 316.
- Killian, L. M. (2002). An introduction to methodological problems of field studies in disasters. In R. A. Stallings (Ed.), *Methods of Disaster Research* (pp. 49-93).
- Knabb, R. D., Brown, D. P., & Rhome, J. R. (2006). Tropical cyclone report: Hurricane Rita, 18-26 September 2005. *National Hurricane Center*.
- Krefting, L. (1990). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214-222.

- Kreps, G. (1978). The organization of disaster response: Some fundamental theoretical issues. In E. Quarantelli (Ed.), *Disasters: Theory and research* (pp. 65-78). London: Sage Publications.
- Kutsche, Paul (1998). *Field ethnography: a manual for doing cultural anthropology*. Upper Saddle River, NJ: Prentice Hall.
- Leonard, R., Onyx, J., & Maher, A. (2007). Constructing Short Episodic Volunteering Experiences: Matching grey nomads and the needs of small country towns. *Third Sector Review, 13*(2), 121.
- Lewis, J., & Ritchie, J. (2003). Generalising from qualitative research. In J. Ritchie, & J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 263-286). Thousand Oaks, CA: Sage Publications.
- Lincoln, Y. S., & Guba, E. A. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.
- Lowe, S., & Fothergill, A. (2003). A need to help: Emergent volunteer behavior after September 11th. *Risk Analysis, 24*(3), 293-314.
- Lueck, M., & Peek, L. (2012). Disaster social service volunteers: Evaluation of a training program. *Journal of Applied Social Science, 6*(2), 191-208.
- Macduff, N., Netting, F. E., & O'Connor, M. K. (2009). Multiple ways of coordinating volunteers with differing styles of service. *Journal of Community Practice, 17*(4), 400-423.
- Majchrzak, A., Jarvenpaa, S.L., & Hollingshead, A.B. (2007). Coordinating expertise among emergent groups responding to disasters. *Organization Science, 18*(1), 147-161.

- McClintock, N. (2004). Understanding Canadian volunteers: Using the National Survey of Giving, Volunteering and Participating to build your volunteer program. Toronto, ON: Canadian Centre for Philanthropy.
- McLennan, J., & Birch, A. R. (2009). Age and motivations to become an Australian volunteer firefighter. *International Journal of Mass Emergencies and Disasters*, 27(1), 53-65.
- Merrill, M. (2006). Global trends and the challenges for volunteering. *The International Journal of Volunteer Administration*. 24(1), 9–14.
- Michel, L. M. (2007). Personal responsibility and volunteering after a natural disaster: The case of Hurricane Katrina. *Sociological Spectrum*, 27(6), 633-652.
- Mileti, D. (Ed.) (1999). *Disasters by design: A reassessment of natural hazards in the United States*. Washington, DC: John Henry Press.
- Musick, M. A., & Wilson, J. (2008). *The volunteers: A social profile*. Bloomington, IN: Indiana University Press.
- National Research Council of the National Academies. (2006). *Facing hazards and disasters: Understanding human dimensions*. Washington, DC: National Academies Press.
- National Service. (2017). *Disaster Services*. Retrieved from <https://www.nationalservice.gov/focus-areas/disaster-services>
- Nelan, M., & Grineski, S. E. (2013). Responding to Haiti's Earthquake: International volunteers' health behaviors and community relationships. *International Journal of Mass Emergencies and Disasters*, 31(2), 293-314.
- Smith, A., Lott, N., Houston, T., Shein, K., Crouch, J., & Enloe, J. (2016). U.S. billion-dollar weather & climate disasters 1980-2016. Retrieved from <https://www.ncdc.noaa.gov/billions/events.pdf>

- Ocak, T., Duran, A., Özdeş, T., Hocagil, C., & Küçükbayrak, A. (2013). Problems encountered by volunteers assisting the relief efforts in Van, Turkey and the surrounding earthquake area. *Journal of Academic Emergency Medicine*, 12(2), 66-70.
- Phillips, B. (2015). *Disaster recovery* (2nd ed.). New York, NY: Taylor & Francis.
- . (2002). Qualitative methods and disaster research. In R. A. Stallings (Ed.), *Methods of Disaster Research* (pp. 194-211).
- . (1986). The media in disaster threat situations: Some possible relationships between mass media reporting and voluntarism. *International Journal of Mass Emergencies and Disasters*, 4(3), 7-26.
- Plummer, C. A., Ai, A. L., Lemieux, C. M., Richardson, R., Dey, S., Taylor, P., & Hyun-Jun, K. (2008). Volunteerism among social work students during Hurricanes Katrina and Rita: A report from the disaster area. *Journal of Social Service Research*, 34(3), 55-71.
- Quarantelli, E. L. (1986). Research findings on organizational behavior in disaster and their applicability in developing countries (Preliminary paper #107). Newark, DE: Disaster Research Center, University of Delaware.
- Rigg, J., Law, L., Tan-Mullins, M., & Grundy-Warr, C. (2005) The Indian Ocean Tsunami: Socioeconomic impacts in Thailand. *The Geographical Journal* 171(4), 374–9.
- Rochester, C., A. Paine, E., & Howlett, S. (2010). *Volunteering and society in the 21st century*. London: Palgrave Macmillan.
- Rotolo, T., & Berg, J. A. (2011). In times of need: An examination of emergency preparedness and disaster relief service volunteers. *Nonprofit & Voluntary Sector Quarterly*, 40(4), 740-750.

- Rubin, C. B. (Ed.). (2012). *Emergency management: The American experience 1900-2010*. CRC Press.
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). London: Sage Publications.
- Sargisson, R. J., Hunt, S., Hanlen, P., Smith, K., & Hamerton, H. (2012). Volunteering: A community response to the Rena Oil Spill in New Zealand. *Journal of Contingencies & Crisis Management*, 20(4), 208-218.
- Satija, N., Collier, K., & Shaw, A. (2016). Boomtown, flood town. *The Texas Tribune*. Retrieved from <https://www.texastribune.org/boomtown-floodtown/>
- Scanlon, J. (1999). Emergent groups in established frameworks: Ottawa Carleton's response to the 1998 ice disaster. *Journal of Contingencies and Crisis Management*, 7(1), 30-37.
- Simons, J., Gaher, R., Jacobs, G., Meyer, D., & Johnson-Jimenez, E. (2005). Associations between alcohol use and PTSD symptoms among American Red Cross disaster relief workers responding to the 9/11/2001 attacks. *American Journal of Drug & Alcohol Abuse*, 31(2), 285-304.
- Sloand, E., Ho, G., Klimmek, R., Pho, A., & Kub, J. (2012). Nursing children after a disaster: A qualitative study of nurse volunteers and children after the Haiti earthquake. *Journal for Specialists in Pediatric Nursing*, 17(3), 242-253.
- Smith, G., & Wenger, D. (2006). Sustainable disaster recovery: Operationalizing an existing agenda. In H. Rodriguez, E. L. Quarantelli, & R. Dynes (Eds.), *Handbook of disaster research* (pp. 234-257). New York, NY: Springer Verlag.
- St John, C., & Fuchs, J. (2002). The heartland responds to terror: Volunteering after the bombing of the Murrah Federal Building. *Social Science Quarterly*, 83(2), 397-415.

- Steerman & Cole (2009). Recruitment and retention of red cross disaster volunteers. *Australasian Journal of Disaster and Trauma Studies*, 1.
- Steffen, S. L., & Fothergill, A. (2009). 9/11 Volunteerism: A pathway to personal healing and community engagement. *Social Science Journal*, 46(1), 29-46.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Sylves, R. (2008). *Disaster policy & politics*. Washington, DC: CQ Press.
- Taylor, S., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource* (3rd ed.). New York, NY: John Wiley & Sons, Inc.
- Taylor, J. B., Zurcher, L. A., & Key, W. H. (1970). *Tornado: A community responds to disaster*. Seattle, WA: University of Washington Press.
- Texas Association of Counties. (2014). *Texas counties: Median household income*. Retrieved from <http://www.txcip.org/tac/census/morecountyinfo.php?MORE=1013>
- Texas Department of State Health Services. (2015). *Texas health data: Center for Health Statistics*. Retrieved from <http://healthdata.dshs.texas.gov/Population>
- Tierney, K. J. (2007). From the margins to the mainstream? Disaster research at the crossroads. *Sociology*, 33(1), 503.
- Tierney, K., Lindell, M., & Perry, R. (2001). *Facing the unexpected: Disaster preparedness and response in the United States*. Washington, DC: John Henry Press.
- Vigo, G. N. (1996). Emergent behavior in the immediate response to two disasters: The 1985 Mexico City Earthquake and the 1994 Northridge Earthquake in Los Angeles. (Doctoral dissertation) Texas A&M University, Texas, USA.

- Vijayakumar, L., & Kumar, M. S. (2008). Trained volunteer-delivered mental health support to those bereaved by Asian Tsunami an evaluation. *International Journal of Social Psychiatry*, 54(4), 293-302.
- Waikayi, L., Fearon, C., Morris, L., & McLaughlin, H. (2012). Volunteer management: An exploratory case study within the British Red Cross. *Management Decision*, 50(3), 349-367.
- Ward, K. D. (2013). Does service beget service? Examining the impact of participation in AmeriCorps National Civilian Community Corps on disaster relief activity later in life. *Risk, Hazards & Crisis in Public Policy*, 4(2), 110-127.
- Wauty, E., de Ville de Goyet, D., & Chaze, S. (1977). Social integration among disaster relief volunteers: A survey. *Mass Emergencies*, 2(2), 105–109.
- Wilson, J. (2000). Volunteering. *Annual Review of Sociology*, 26(1), 215-240.
- Yan, H., & Lavandera, E. (2016). Houston flooding: 7 dead, 1,200 rescued – and more rain to come. *CNN*. Retrieved from <http://www.cnn.com/2016/04/19/us/houston-texas-flooding/>

APPENDIX A: PRESIDENTIAL DISASTER DECLARATION MAPS

FEMA-4223-DR, Texas Disaster Declaration as of 08/05/2015

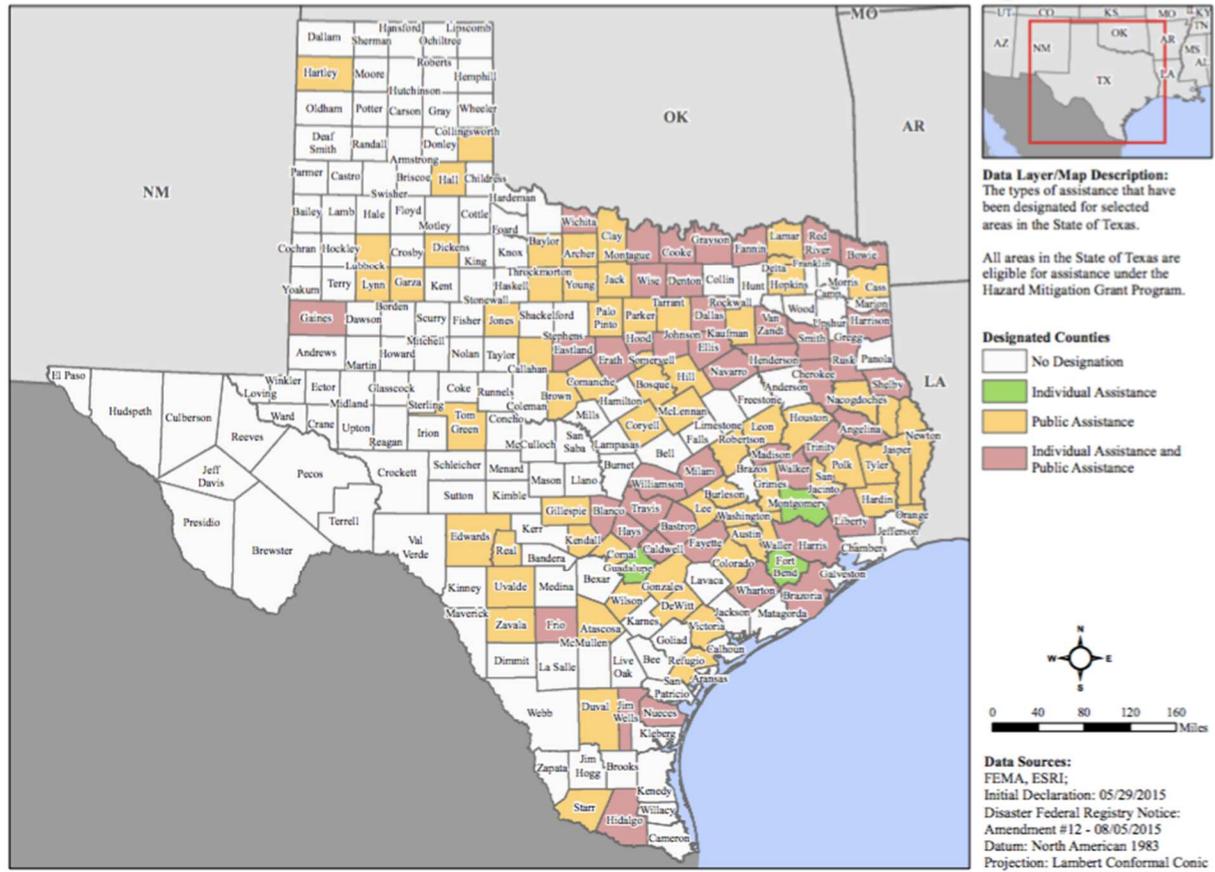


Figure A1. Texas Disaster Declaration as of 08/05/2015 (Federal Emergency Management Agency, 2015b)

FEMA-4245-DR, Texas Disaster Declaration as of 1/29/2016

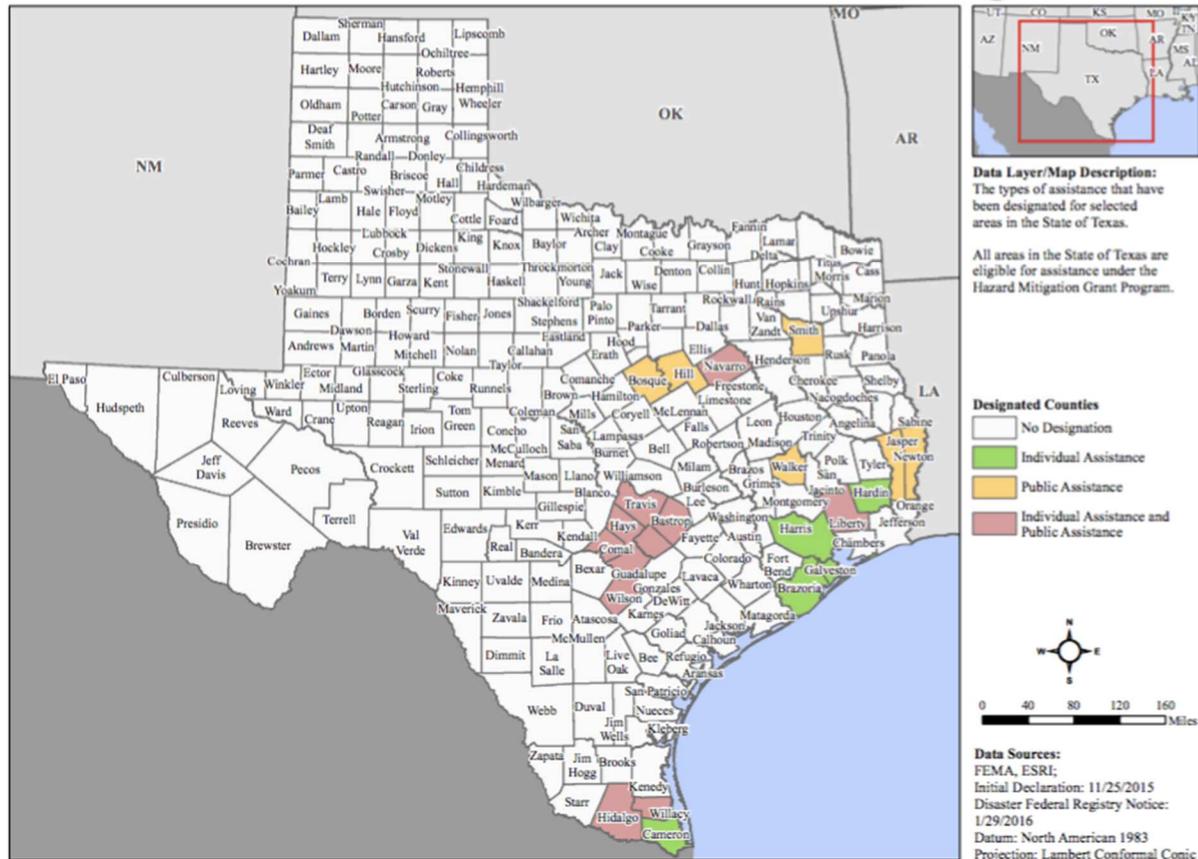


Figure A2. Texas Disaster Declaration as of 01/29/2016 (Federal Emergency Management Agency, 2015d)

FEMA-4269-DR, Texas Disaster Declaration as of 06/30/2016

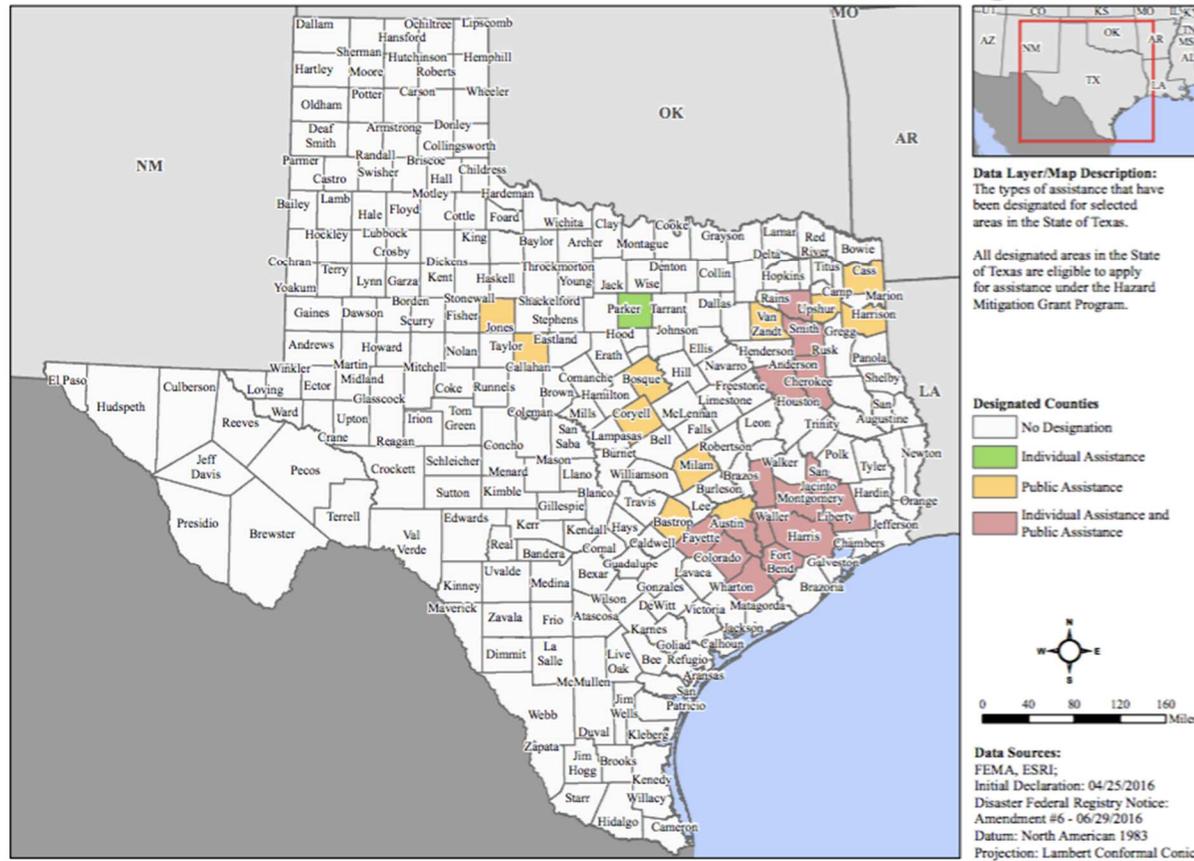


Figure A3. Texas Disaster Declaration as of 06/30/2016 (Federal Emergency Management Agency, 2016b)

FEMA-4272-DR, Texas Disaster Declaration as of 08/01/2016

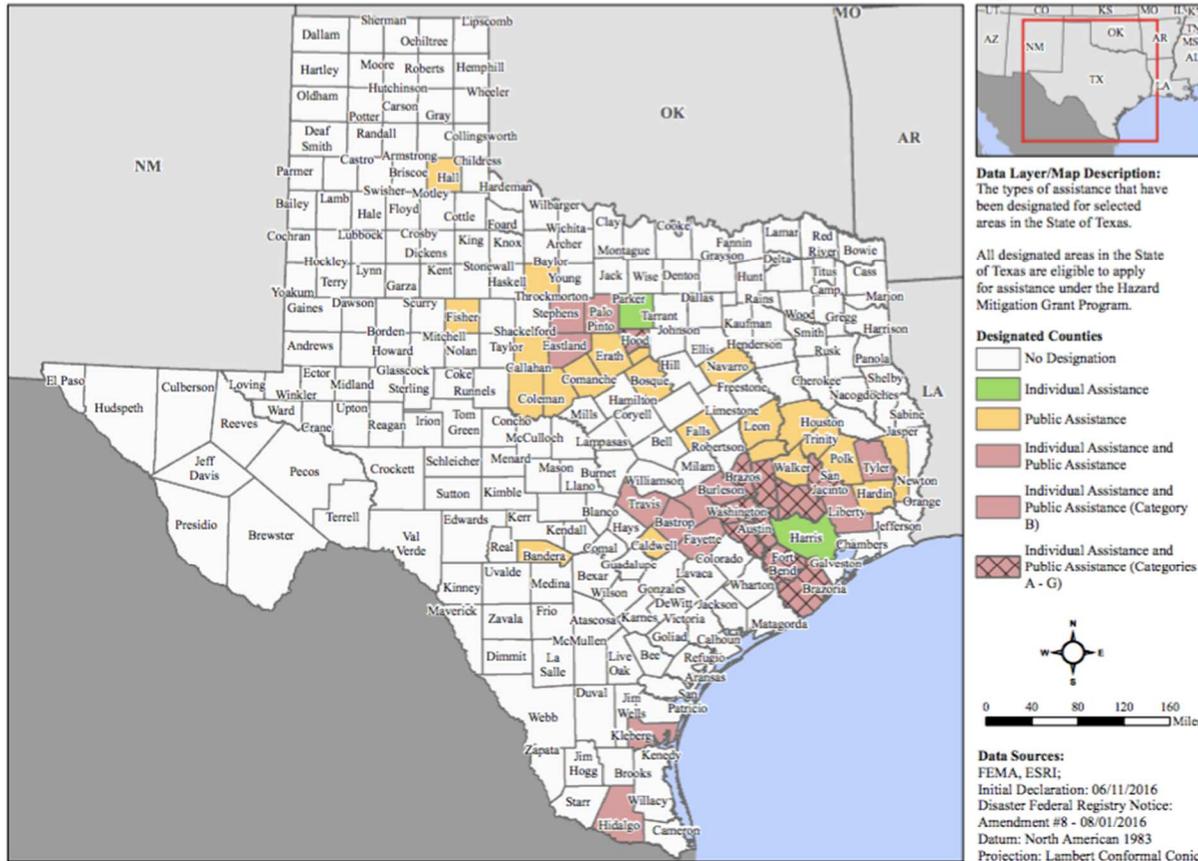


Figure A4. Texas Disaster Declaration as of 08/01/2016 (Federal Emergency Management Agency, 2016c)

APPENDIX B: INDIVIDUAL VOLUNTEER INTERVIEW GUIDE

Introductory script: Before we begin, I wanted to make sure that you are comfortable with a few things related to this project. Are you comfortable with the fact that you have been selected for participation in this research due to your role as a volunteer; that your participation in this project is voluntary; that you can let me know if you want to stop participating anytime; that while your confidentiality is not guaranteed, we will not use your name in the final write-up of the data collected for this research; and, that our conversation is going to be digitally recorded? Do you have any questions before we begin?

Interview Guide:

1. How did you come to be a volunteer during this disaster?
2. What have you been doing since you've been here?
3. How has your work gone? Challenges? Successes?
4. How do you think the overall response/ or recovery is going?
5. What is your goal? What do you expect the outcome of your time here volunteering to be?
6. Would it be okay if I contacted you if I find I have any follow-up questions related to the information you've provided me today?
 - o *If yes, then* "Could you write down your contact information?"

For Interviewer Only:	INFORMATION WILL BE KEPT LOCKED
Date:	Time:
Location:	
Participant Name:	Participant Code:
Participant E-mail:	Participant Phone Number:

APPENDIX C: INDIVIDUAL VOLUNTEER INFORMATION SHEET

“Behaviors of Response and Recovery Volunteers” INFORMATION SHEET

Research Study.

You are being invited to participate in a research project entitled “Behaviors of Response and Recovery Volunteers”. This study is being conducted by Samantha Montano, from North Dakota State University, Department of Emergency Management.

Purpose of Study.

The purpose of this research is to explore the behavior of volunteers during response and recovery.

Basis for Participant Selection.

You are being invited to participate in this research project because you have been identified as either a response or recovery volunteer.

Explanation of Procedures:

Should you choose to participate, we will arrange a time of your choice to conduct an in person interview. A digital recorder will be used to capture our conversation to assure that I accurately use the information you provide.

Potential Risks and Discomforts.

There should be no potential discomfort or physical, social, psychological, legal, or economic risk to you due to your participation in this study.

Potential Benefits.

There is little disaster literature on the behavior of volunteers during response and recovery. This research intends to start building this body of literature. Your participation in this project will increase the information available to educate students and faculty in emergency management higher education programs as well as policy makers, nonprofit organizations, and future volunteers.

Assurance of Confidentiality.

While we cannot guarantee your confidentiality, there are a couple of related points you should be aware of: 1) what is shared by a participant in an interview will not be shared with any other interview participants; 2) in the final research write-up your name will not be attached to any quotations used; 3) The interviews will be digitally recorded. Digitally recorded interviews will be uploaded on to the interviewer’s personal computer. The sound file will then be transcribed and codes assigned for identifying personal and geographical characteristics. I will be the only person in possession of the paper listing the codes and their link to participant information. Once the recordings, transcriptions and codes are no longer relevant to my research they will be destroyed; 4) in the interview transcriptions, field notes, and the final product, codes rather than identifying characteristics (personal or geographic) will be used. Your name will not be used in any reports. Aliases will be substituted instead (i.e. Jane Smith from State A).

Voluntary Participation and Withdrawal from the Study.

Your participation is voluntary and you may quit at any time. Your decision whether or not to participate will not affect your present or future relationship with North Dakota State University or any other benefits to which you are otherwise entitled. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time.

Offer to Answer Questions.

You should feel free to ask questions now or at any time. If you have any questions, you can contact me, Samantha Montano, at (207) 838-0708 or samantha.montano@ndsu.edu or Dr. Jessica Jensen, at (701) 231-5886 or ja.jensen@ndsu.edu. If you have any questions about the rights of human research participants, or wish to report a research-related problem, contact the NDSU Institutional Research Board (IRB) Office at (855) 800-6717 or by email at ndsu.irb@ndsu.edu.

APPENDIX D: INFORMANT INTERVIEW GUIDE

Introductory script: Before we begin, I wanted to make sure that you are comfortable with a few things related to this project. Are you comfortable with the fact that you have been selected for participation in this research; that your participation in this project is voluntary; that you can let me know if you want to stop participating anytime; that while your confidentiality is not guaranteed, we will not use your name in the final write-up of the data collected for this research; and, that our conversation is going to be digitally recorded? Do you have any questions before we begin?

Interview Guide:

1. Tell me about your involvement with this disaster.
2. Tell me about your involvement with volunteers during this disaster.
3. How has your work gone? Challenges? Successes?
4. How do you think the overall response/ or recovery is going?
5. What is your goal? What do you expect the outcome of your time working here to be?
6. Would it be okay if I contacted you if I find I have any follow-up questions related to the information you've provided me today?
 - o *If yes, then* "Could you write down your contact information?"

For Interviewer Only:	INFORMATION WILL BE KEPT LOCKED
Date:	Time:
Location:	
Participant Name:	Participant Code:
Participant E-mail:	Participant Phone Number:

APPENDIX E: INFORMANT INFORMATION SHEET

“Behaviors of Response and Recovery Volunteers” INFORMATION SHEET

Research Study.

You are being invited to participate in a research project entitled “Behaviors of Response and Recovery Volunteers”. This study is being conducted by Samantha Montano, from North Dakota State University, Department of Emergency Management.

Purpose of Study.

The purpose of this research is to explore the behavior of volunteers during response and recovery.

Basis for Participant Selection.

You are being invited to participate in this research project because you have been identified as an individual in a position that may provide insight to the research topic.

Explanation of Procedures:

Should you choose to participate, we will arrange a time of your choice to conduct an in person interview. A digital recorder will be used to capture our conversation to assure that I accurately use the information you provide.

Potential Risks and Discomforts.

There should be no potential discomfort or physical, social, psychological, legal, or economic risk to you due to your participation in this study.

Potential Benefits.

There is little disaster literature on the behavior of volunteers during response and recovery. This research intends to start building this body of literature. Your participation in this project will increase the information available to educate students and faculty in emergency management higher education programs as well as policy makers, nonprofit organizations, and future volunteers.

Assurance of Confidentiality.

While we cannot guarantee your confidentiality, there are a couple of related points you should be aware of: 1) what is shared by a participant in an interview will not be shared with any other interview participants; 2) in the final research write-up your name will not be attached to any quotations used; 3) The interviews will be digitally recorded. Digitally recorded interviews will be uploaded on to the interviewer’s personal computer. The sound file will then be transcribed and codes assigned for identifying personal and geographical characteristics. I will be the only person in possession of the paper listing the codes and their link to participant information. Once the recordings, transcriptions and codes are no longer relevant to my research they will be destroyed; 4) in the interview transcriptions, field notes, and the final product, codes rather than identifying characteristics (personal or geographic) will be used. Your name will not be used in any reports. Aliases will be substituted instead (i.e. Jane Smith from State A).

Voluntary Participation and Withdrawal from the Study.

Your participation is voluntary and you may quit at any time. Your decision whether or not to participate will not affect your present or future relationship with North Dakota State University or any other benefits to which you are otherwise entitled. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time.

Offer to Answer Questions.

You should feel free to ask questions now or at any time. If you have any questions, you can contact me, Samantha Montano, at (207) 838-0708 or samantha.montano@ndsu.edu or Dr. Jessica Jensen, at (701) 231-5886 or ja.jensen@ndsu.edu. If you have any questions about the rights of human research participants, or wish to report a research-related problem, contact the NDSU Institutional Research Board (IRB) Office at (855) 800-6717 or by email at ndsu.irb@ndsu.edu.

APPENDIX F: IRB APPROVAL



February 2, 2015

Dr. Jessica Jensen
Emergency Management

Re: IRB Certification of Exempt Human Subjects Research:
Protocol #HS15161, "Behaviors of Response and Recovery Volunteers"

Co-investigator(s) and research team: Samantha Montano

Certification Date: 2/2/15 Expiration Date: 2/1/18
Study site(s): TBD
Sponsor: n/a

The above referenced human subjects research project has been certified as exempt (category # 2) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, Protection of Human Subjects). This determination is based on the original protocol submission (received 1/28/15).

Please also note the following:

- If you wish to continue the research after the expiration, submit a request for recertification several weeks prior to the expiration.
- The study must be conducted as described in the approved protocol. Changes to this protocol must be approved prior to initiating, unless the changes are necessary to eliminate an immediate hazard to subjects.
- Notify the IRB promptly of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Report any significant new findings that may affect the risks and benefits to the participants and the IRB.

Research records may be subject to a random or directed audit at any time to verify compliance with IRB standard operating procedures.

Thank you for your cooperation with NDSU IRB procedures. Best wishes for a successful study.
Sincerely,

Kristy Shirley
IRB Compliance Administrator
NDSU IRB Office
1735 Research Park Drive, Fargo, ND 58102
701.231.8995

Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult www.ndsu.edu/irb. This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.

INSTITUTIONAL REVIEW BOARD
NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | ndsu.edu/irb
Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo ND 58102

NDSU is an EO/AAE university.

APPENDIX G: POSSIBLE FACTORS EXPLAINING VOLUNTEER ENGAGEMENT

Factor		East Texas Response	East Texas Recovery	Disaster Literature
Individual Factors				
Demographics	Sex/ Gender			X
	Age			X
	Race			X
	Religion			X
	Income			X
	Education			X
Pre-Disaster	Altruism	X		X
	Skills	X		
	Latent Knowledge	X		X
	Previous Disaster Experience	X		X
Group Membership	Integration	X		X
	Who individuals volunteer with (i.e., individually, with school, employees, churches, voluntary organization)	X	X	X
Motivation to Volunteer	X	X	X	
Goodness-of-Fit with Volunteer Site		X		
Goodness-of-Fit with Voluntary Organization			X	
Logistics	Availability	X	X	
	Mobility	X		X
	Accommodations	X		
Organizational Factors				
Goodness-of-Fit with Community			X	
Organizational Capacity	Personnel		X	
	Funding		X	
	Base of Operations		X	
Integration of the organization			X	

Logistical Support Provided to Volunteers		X	
Community-Wide Factors			
Impacts & Needs	Perception of unmet needs	X	
	Perceived lack of government response		X
	Perceived size of disaster	X	X
Media	Immediacy of need	X	X
	Awareness of event/ need	X	X
Physical Conditions	Awareness of volunteer opportunities		X
	Weather Conditions		X