

Sheltering and Housing Recovery after Disasters: Dissecting the problems of policy implementation and possible solutions

Agyemang Frimpong, PhD

Assistant Professor – Public Administration

BJ-ML School of Public Affairs(R 311)

Texas Southern University

United States of America

Abstract

Meeting housing demands in normal times are difficult but it is even more challenging when resources are stretched thin in the aftermath of disasters and demands become greater. This exploratory research is aimed at finding the problems involved in the implementation of disaster housing programs in order to help improve upon delivery. Using the Critical Incident Technique (CIT), County Directors of Emergency Management Agencies in Ohio were asked to recall and retell their experiences with sheltering/housing in the aftermath of the last disaster that occurred in their county. The study found out that some of the barriers to successful implementation of shelters and housing programs in the aftermath of disasters were politics and bureaucracy; lack of adequate knowledge about laws governing recovery; lack of recovery plans for functional/special needs population; lack of back-up power to operate emergency operation centers; adoption of forward mapping approach instead of backward mapping approach to implementation and political interference in the hiring of personnel working for county EMAs leading to less qualified people being hired. Recommendation for success and directions for future research were also suggested.

Key Words: *Critical Incident Technique, vulnerabilities, anecdotes, backward mapping, forward mapping*

1.0 Introduction

This article discusses housing recovery after disasters and the problems that have afflicted the implementation of such programs. Eventually all recovery efforts are geared towards long term recovery of the devastated community. When a community experiences a disaster that wipes out or damages lots of houses, the process of recovery has always been very painful and slow. The process is sometimes embedded with bureaucracy/politics and the impacted victims sometimes become very angry when government response does not come in handy. The Center for Research into the Epidemiology of Disasters (CRED) defines a disaster as situation or event, which overwhelms local capacity, necessitating a request to national or international level of assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering (CRED 2006). Dyson(2005); Enarson and Morrow(1998) said that while no one in its path can expect to escape the wrath of natural disasters, and wealth is no answer, disasters especially afflict the vulnerable who happens to be the poor, women and children.

There are many definitions for recovery, but Mileti (1999) said that the recovery phase of disaster management kicks in when fire and police officials(first responders) have gone back to their stations and local public officials are dealing with debris removal, infrastructure, economic development and housing. It also includes temporary housing, food and clothing, debris clearance, psychological counseling, job assistance and loans to restart small businesses. Smith and Wenger (2006) also described the recovery phase as the process of restoring, rebuilding and reshaping the physical, social, economic, and natural environment through pre-event planning and post-disaster actions.

1.1 The Right to Shelter and Housing

Gould (2009) said that the right to housing does not spring whole from a disaster but is grounded in the well-established right to housing under international law. While the right to housing is among the most recognized of the economic, social, and cultural rights, this is not the same as saying that the right to housing has been realized. The basis for the right to housing under international law is propounded by the International Covenant on Economic, Social and Cultural Rights (ICESCR). Article 11 of the ICESCR asserts that “the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions”(p.5).

In 1985, the United Nations Economic and Social Council established the Committee on Economic, Social and Cultural Rights (CESCR) to help it fulfill its responsibilities under the Covenant (Gould 2009). CESCR stated that, “victims of natural disasters” and “people living in disaster prone areas” as among those disadvantaged groups that should be ensured “some degree of priority consideration in the housing sphere” (CESCR, 1985). These international law and conventions thus make the issue of housing for disaster victims an obligation of the government.

In addition, the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), predating the ICESCR by a year, identifies housing as one of the rights to be enjoyed without discrimination (Gould, 2009). These latter treaties are of particular importance in enforcing the right to housing against States that have not ratified the ICESCR but have ratified these other important conventions. Therefore when assessing recovery from domestic natural disasters, the United States ratification of ICERD provides a human rights regime that can be applied (Alexander, 1993). The Council of Europe also embraces housing rights, most clearly in the European Social Charter which obliges parties to ensure the “effective exercise of the right to housing” and to take measures” designed to (1) promote access to housing of an adequate standard (2) prevent and reduce homelessness and (3) make the price of housing accessible with the view to those without adequate resources (European Social Charter, 1996). Finally, while the African Charter on Human and Peoples’ Rights known as the Banjul Charter does not explicitly include housing as a right, the African Commission has inserted a right to shelter or housing into the Charter (OAU, 1985).

Thus, the issue of sheltering and housing is very important in all parts of the globe and particularly important to vulnerable victims and the socially disadvantaged in the aftermath of disasters (Bolin and Bolton, 1986; Oliver-Smith, 1999). According to Gould (2009) and Bolin (1985), advancing the right to housing in normal contexts has never been easy; protecting that right in the face of massive displacement and the pressing need for urgent response following a natural disaster has its own set of further challenges.

Prior to Hurricane Katrina, the United States experienced numerous state level emergencies and both major and minor disasters (Carley, 2009). State and federal governments, along with Department of Housing and Urban Development never experienced a catastrophic event the magnitude or size of Hurricane Katrina and the need for immediate housing to assist approximately 1 million displaced evacuees (Carley, 2009).

The Robert T. Stafford for Disasters Relief and Emergency Assistance Act, PL 100-707 is the governing document used to regulate and guide most of the federal government’s decisions concerning its authorized actions during emergencies or declared disaster. Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-707, signed into law November 23, 1988, amended the Disaster Relief Act of 1974, PL 93-288. This Act constitutes the statutory authority for most federal disaster response activities especially as they pertain to FEMA and its programs. In June 2007, the Robert T. Stafford Act was amended to revise and broaden the scope of existing disaster relief programs as a result of Hurricane Katrina, Rita, Wilma, and others (FEMA, 2009).

Comerio (1998) thoughtful pre-Katrina analysis of U.S disaster policies concludes that they often create more problems than they solve in catastrophic urban disasters. She attributed this failure to the fact that these policies are based on the thirty or so “garden variety” disasters that occur annually in the U.S. (p 12-13). She contends that public assistance should be redirected away from homeowners with limited damage, which constitute the largest U.S assistance programs, and toward restoration of public infrastructure. Recognizing that rental housing is an important community resource, she also argued for the creation of special relief for displaced renters. According to Gould (2009), currently, State action in disaster planning and recovery fails to prevent disparate discrimination when it comes to housing restoration for those affected by disasters. He added that “a disproportionate burden is felt by the poor and other marginalized sectors of the community, a burden which he claims often leads to sustained human rights violations, especially when prior vulnerabilities such as gender, race, or income levels, and natural disasters intersect” (Gould, 2009, p.202).

1.2 Problem Statement

Despite the adoption of policies that helps victims of disaster to recover, the problem of disaster housing has been one of the most difficult areas of disaster management in the United States. The recovery phase of emergency management has to do with the provision of immediate support during the early recovery period necessary to return vital life support systems to minimum operation levels, and continuing to provide support until the community returns to normal (Petak, 1985).

Philips (1983) also saw recovery as a social process in which the local government manager creates crucial partnerships to guide the affected community toward multifaceted restoration of basic services. Housing which forms the largest stock of physical facilities in every community is a source of widespread and often intense complaints (Davis, 1978).

According to Quarantelli (1995), some public expression of discontent over the housing provided is a nearly universal feature of major disasters in the United States. There has been a consistent institutional and political lag in identifying and mitigating increasingly difficult housing situations in the aftermath of disasters. Public administration has generally been limited to a crisis-reactive management approach, whereas the seriousness of the situation deserves a more proactive stance, in all the four(4) phases of disaster management. After the September 11 attacks, the government proposed the National Response Plan (NRP) which comprised of the Essential Support Functions (ESFs) (NRP Resource Center, 2008). It describes the roles, responsibilities, response actions, response organizations and planning requirements that are needed when incidents of national significance occur. This was later followed by the National Response Framework(NRF) with Essential Support Functions(ESF) Annexes which grouped federal resources and capabilities into functional areas that are most frequently needed in a national response example transportation, mass care, firefighting, sheltering and housing (NRF Resource Center, 2008).

From an organizational perspective, there seems to be lengthy delays (especially in providing permanent housing), inconsistencies in application of standards and requirements, sudden and unannounced changes in policies and, at times poor administration of programs (Mileti, 1999; Quarantelli, 1995 and CBO, 2007). According to a General Accounting Office Report for 2008, there seem to be so many competing disaster housing programs with sometimes confusing criteria for qualification by victims. In fact, Pressman and Wildavsky (1973) concluded that so many plans in Washington do not get implemented because of unnecessary competition for attention and funding. This holds true for both state and local governments.

Disasters often become focusing events that attracts national attention as soon as they happen but fades away with time (Birkland, 2006, 1997 and 1996). In the wake of a disaster, local and state governments and charitable organizations take immediate steps to shelter families and individuals whose housing has been made uninhabitable by the event. Sections 403 and 408 of the Stafford Act of 1988(PL 100-707) empower the President of the United States to assist disaster victims in federally declared disasters. A General Accounting Report of 2009 concluded that even though legal provisions were made within the Stafford Act to provide emergency sheltering and housing to vulnerable victims and waive administrative conditions, politics and bureaucracy have hindered its timely implementation. Although research exists pertaining to disaster housing, very little research has been done examining the problems of implementing disaster housing programs. Natural disasters can happen at any time and place. They do not selectively strike particular communities or group of people, however, some places are more vulnerable and certain segments of the population are predisposed to disasters, for example the poor tend to live at the lower levels of flood zones (Squires and Hartman, 2006; Fothergill, Darlington and Maestas, 1999).

Disasters are now considered as one of the biggest obstacles to sustainable development and social security of nations. The world is experiencing intensity of disasters both natural and man-made with devastating impacts. Whenever a disaster strikes, individuals and communities are affected, by seriously disrupting normal functions. The notion of a disaster has undergone a dramatic transformation of meaning. According to Drabek (1991), in the past, many, if not most, cultures around the world viewed disasters as acts of God. The injury, death, destruction and disruption associated with catastrophic events were often regarded to be punishments that fulfilled the divine, and sometimes unknown, purposes of a supernatural being (Steinberg, 2000). The problem with this conceptualization was that it ignored the natural processes of an ever changing environment (Rubin, 1981 & Quarantelli, 1986). However, according to Perry and Quarantelli (2005) and as the scientific understanding of the earth's physical systems expanded, disasters became synonymous with disaster agents themselves. Housing has been a major source of widespread and often intense complaints (Quarantelli, 1982).

2.0 Disaster Management Policy in the United States

Thomas A. Birkland (2006), asserted that disaster policy in the United States is very much event driven. Disasters become focusing events and gain all the national and international attention but later fizzle out of the national mood when new events happen.

Donald F. Kettl(2007) also posited that certain disasters and catastrophes not only stress the nation's disaster management system but force massive reforms that produce a "new normal" in the national psyche and in the domain of disaster policy and homeland security. James F. Miskel (2008), claimed that FEMA whether independent or within Department of Homeland Security is fairly good at managing "routine" disasters. Miskel (2008) also concluded that no federal agency is invested with sufficient authority to adequately or proficiently cope with a catastrophe.

Since the 1970s, there have been four (4) basic recovery models (Comerio, 1998). These are: (1) The complete redevelopment of a devastated area by a national a government (2)the infusion of outside aid targeted to low income housing, provided by either governments or charities;(3) a limited intervention approach, which assumes that private insurance will cover some losses, property prices will adjust to the new circumstance, and government will provide supplemental assistance for the poor and (4) a complete reliance on market forces to adjust and adapt after a disaster (Comerio, 1998, p121). According to Comerio (1998), in the past thirty years, the redevelopment model has only been used in the most dire of circumstances such as when earthquake completely destroyed the city of Tangshan in China in 1976. It has also been used in virtually destroyed cities of Spitak and Leninakan in former Soviet Armenia in 1988. The targeted infusion of outside capital has been most commonly used when a devastating disaster has occurred in a major city or impacted a large region in a developing country. The limited intervention model has been the basis of United States disaster policy (Comerio, 1998).

Recovery is post disaster activities designed to restore basic services, including repairing lifelines such as power and water, it includes temporary housing, food and clothing, debris clearance, psychological counseling, job assistance, and loans to restart small businesses (Quarantelli, 1982 & Waugh, 2000). Many of the problems which shows up in sheltering and housing stem less from the individual evacuees involved than from the organization trying to help them (Quarantelli, 1995). It is very common for planning and operational agencies and their personnel to perceive the evacuees as being the problem and the source of difficulties in the situation. However, strong case can be made that it is such matters as lack of pre-impact housing inventories; failure to recognize pre-impact conflicts and differences in community power; inadequate use of surviving community resources; erratic organizational mobilization and poor inter-organizational coordination which make a strong case for and providing sheltering and housing(Comerio, 1998). Thus blaming disaster victims for that which they are not responsible is not peculiar to this disaster related issue, but as elsewhere, unless this focus is set aside and a more realistic approach taken, no improvement can occur in preparing for and providing any kind of disaster sheltering and housing.

2.1 Post-Disaster Housing

When disaster strikes, victims are most likely to move in to join extended family members or friends (Rubin, 1985). Federal assistance following a declared major disaster or emergency is built upon a working relationship between the federal government and the state. Such assistance presupposes a leadership role by local and state officials or at a minimum their input, in determining the best approach to meet the needs of their citizens. In reconciling the needs and preferences of federal, state and local actors, FEMA has developed approaches to housing based on several practical and theoretical considerations (Sylves and Waugh Jr, 1996). Such considerations include the agency's ability, working in concert with state and local governments, to house families safely, with proper forms of support. This should be done in the shortest of time frames, and in proximity to their original residences and places of employment. The proper forms of support can include, as needed and appropriate, food assistance, transportation help, and access to employment, security arrangements and other aid that helps displaced residents begin to resume their lives while awaiting the repair of their homes (Handmer and Dovers, 2007).

In cases where no presidential declaration has been made, responsibility for housing those in need falls upon the state and the local community (Handmer and Dovers, 2007). This form of emergency shelter is often provided by the chapters of the American Red Cross and other charitable providers or by the local governments themselves as well as designated organizations under the Essential Support Functions (National Response Framework, 2007). In fact, housing assistance is not assumed by the presidential declaration. In some instances, the declaration may only be for Public Assistance, which covers the repair and replacement of damaged infrastructure, rather than Individual Assistance, which includes federal temporary housing assistance (Stafford Act 1988, PI 100-707).

In the intervening period when disaster victims are registering to receive assistance from FEMA, they may be moved from an emergency shelter to an improved temporary shelter facility while awaiting more permanent housing help.

While cooperation with state and local partners is a fundamental part of FEMA's approach to post-disaster housing, the ultimate decisions on the courses pursued rest with FEMA. It should be noted that Federal help is intended to supplement, not to supplant state efforts (May and Williams, 1986). States can be victims themselves of the disaster incident and a catastrophe can limit their capacity to respond or participate in the early stages of the recovery effort (GAO, 2007). In those cases, federal assistance must be rapid and comprehensive since the initial local and state response cannot be assumed. The state also has a responsibility to assist in the management of programs that provide help to families and individuals and to provide resources for the non-federal portion of the cost of that help. A fundamental response principle is that all incidents should be managed at the lowest jurisdictional level possible, and this holds true for disaster housing assistance as well (Sylves, 2008). Local governments and community-based organizations have a wealth of expertise and experience and can help shape disaster housing assistance to meet the unique needs of their community (Waugh and Tierney, 2007). When disaster housing demands exceed the local resources and capabilities, states and regional organizations provide additional support. Sheltering and provision of temporary housing will require cooperative efforts among multiple state agencies to develop mutually supportive plans (Mileti, 1999).

Beyond the impact of a disaster on a state is the fact that while all states are equal in rights, they are not necessarily equal in their capacity to respond (May, 1985). According to Waugh (2000), "the size of the state, the tax-base and other resources, the level of professionalization within the state government, the form of government (i.e. strong or weak executive), state-local politics, and the orientation of officials and the public to proactive government programs are factors that influence the organization and functions of the state emergency management system and its ultimate effectiveness" (p.34).

In some cases, the federal government may be better positioned than states to lead post-disaster housing efforts. FEMA through its historical disaster operations experience, the regional offices' relationships with the states, and its assessment of state capacity and readiness through the grants administration process is well positioned to know, in advance, the level of assistance it can expect from any given state and shape its housing help accordingly based on that assessment.

2.1.1 Research Questions

The research questions for this exploratory case study were shaped by the best practices promoted by FEMA, the provisions within Sections 402, 403, 406 and 408 of the Stafford Act 1988, provisions within the Post-Katrina Emergency Management Reform Act 2006(PL 109-295) and the National Disaster Housing Strategy 2009. In order to explore the issue of sheltering and housing for impacted victims, this main research question were asked: What are the shared experiences of directors of county emergency management agencies' in terms of finding sheltering/housing opportunities for impacted victims after disasters? In order to answer the main research question, the study employed the critical incident technique.

3.0 Methodology

The strategy of enquiry for this exploratory case study research would be the critical incident technique (CIT). Creswell (2003) said that Case Study research involves the study of an issue explored through one or more cases within a bounded system (i.e, a setting or context). The American Institutes for Research (1998) defines CIT as a "set of procedures for systematically identifying behaviors that contribute to the success or failure of individuals or organizations in specific situations". Davis (2006) said that CIT provides an organization with a starting point to advance its development through a learning experience.

This technique was first introduced by Flanagan (1954) who had initially developed it in the 1950s for use within the military as part of an aviation psychology program to explore why pilots could not learn to fly. Since that time because of its versatility, the technique has been used widely and adapted for use in other sectors. Flanagan (1954) defined CIT as a way of identifying the significant factor(s) that contributed to either the success or failure of a particular human event. He also described the technique as consisting of a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems.

According to FitzGerald, Seale, Kerins and McElvaney (2008), the critical incident technique is a well established qualitative research tool used in many areas of the health sciences, including nursing, medicine, dentistry and their respective educational systems. It is a flexible set of principles that can be modified and adapted to meet the specific situation at hand. By gathering factual reports made by observers, researchers can build a picture of the situation under study. FitzGerald et al (2008) also said that CIT maximizes the positive and minimizes the negative attributes of anecdotes, effectively turning anecdotes into data. Douglas, McClelland, Davies and Sudbury (2009) said that CIT has been used in several sectors including industrial/organizational psychology, banking, nursing, dentistry and aviation. Kemppainen (2000) also described the method as flexible, qualitative research technique used to solve practical problems.

There are some benefits outlined in the literature regarding the use of CIT. Johnston (1995) said that it is a useful method when exploring an unknown phenomenon where it would not be possible to design a relevant questionnaire. They said that it could be used to generate an accurate and in-depth record of events and also for assessing perceptions of customers from different cultures. Burns, Williams and Maxham (2000) also said that CIT is easy to administer and allows a researcher to look more in-depth into a phenomenon. According to Douglas, McClelland, Davies and Sudbury (2009), CIT enables participants to provide details of their experiences as they perceive them, rather than them being asked specifically only on selected areas identified by others. According to Davis (2006), a “critical incident” is an observable form of action or form of expression, which is complete enough in itself to allow inferences to be drawn (p.16). When using CIT the respondent is required to relate in narrative form a positive or negative experience (Davis, 2006).

The literature also has some drawbacks with the use of CIT method. Johnston (1995) in his research into the banking sector found out that it was difficult to process and analyze anecdotal material. Bazeley (2007) said that there are computer programs such as Nvivo that may be used to make this process easier. According to Davis (2006), there may also be an impact on reliability and validity if respondents’ interpretations are misunderstood. There is also the issue of recall bias and memory lapses. Byrne (2001) and Cole (2005) also said that there may be a low response rate because of the time it may take to retell all the details of an incident. Frickler and Schonlau (2002) discussed the advantages and disadvantages of internet based research surveys to include low cost, ease of accessibility, non-interference with respondents’ schedule of work but not knowing who is responding to the survey.

3.1 Data Collection Procedures

The CIT questionnaire simply asked respondents to recall and retell a story about something they have experienced within the specific area of operation. Edvardson and Roos (2001) suggested that the narratives can be collected in a number of ways including focus groups, one-to-one interviews or in large group settings, by direct participatory observation and by telephone. There are different approaches that have been suggested within the literature. They include the ten-step approach (Johnson, 1995) or the detailed five-phase checklist provided by Byrne (2001). The five phases include problem definition, study design, data collection, data analysis and interpretation and reporting.

The study designed structured questionnaires for the County Directors of Emergency Management Agencies (OEMA) which are the managing agencies for disasters in the state. The questionnaire asked respondents to remember an experience they have encountered, either positive or negative, and retell it as a narrative.

The data collection procedures followed the guidelines for web-based research by Berry (2005) and Cole (2005). The following approach was followed when conducting this online survey:

- The survey instrument was pre-tested online at Summit County
- Clear instructions were provided to help users maneuver through the survey(back and next arrow keys)
- The online survey was published on a secure website
- Personalized e-mails were sent to notify the target population
- During the follow ups, the link to the survey was included in the e-mails.

3.1.1 Discussion of the Study Variables

The online and mail surveys consisted of four sections. The first section utilized the critical incident technique and asked county directors of emergency management agencies to recall and retell their experiences on the last disaster the county experienced that called for sheltering/housing for impacted victims.

This section was important because it helped the researcher to answer the main research question: “What are the shared experiences of directors of county emergency management agencies’ in terms of finding sheltering/housing opportunities for impacted victims after disasters?” To explore this main research question, seven sub-research questions were asked that sought to gain knowledge into the disaster housing expertise and experience in the various counties.

3.1.2 Description of the Survey Participants

As with any survey research project, it is very important to make certain that the research will yield suitable response rates that will enhance the validity of the study. In this particular study, the researcher used the list of county directors of emergency management agencies in the State of Ohio as the survey population. They numbered 88 and all of them were recruited to take part in the survey by virtue of their position. The e-mail addresses of these county directors were drawn from the master list found at the web site of the Ohio Department of Public Safety. This is a self-selected sample as participation was voluntary.

In all, 24 county directors of emergency management agencies in the State of Ohio declined to participate in the study after receiving the pre-notification mail. The online survey yielded 64 responses out of the 88 participants which was equivalent to about 72 percent. In order to ensure great participation by county directors, the researcher promised participants copies of summary findings of the project. County directors who did not want to participate in the survey had the option of deleting the e-mail and sending a request to the researcher not to receive any further reminders. The researcher composed the first e-mail invitation message that contained the link of the survey questionnaires with concise instructions on how to proceed with the survey, and information on how to contact the researcher if they had any questions or concerns with the questionnaire.

Following online survey protocol in Berry (2005), the first follow up e-mail with the survey link was sent to county directors on day 7 with a plea for those who have not filled their surveys to do so. The second follow up e-mail with the link to the survey were sent on day 15 of the survey administration in order to increase the response rate. Follow-up e-mails had a statement that asked county directors that have filled out the survey to disregard the mail and a plea to those who have still not filled out to do so. In between these e-mails, the researcher also called all the 88 county directors of emergency management agencies to encourage them to fill out the online survey. After the online survey administration was closed, the researcher sent out mail surveys to the remaining county directors who have not yet responded in a push to increase response rates. The researcher also did a focused interview for five county directors’ emergency management agencies to add richness to the data generated from both the online and mail surveys.

4.0 Summary of Findings

The study yielded a participation rate of 72% as 64 county directors participated. County directors of EMA that declined to participate in the study were 21. Some of them declined because they thought sheltering and housing after disasters for impacted victims was a very sensitive issue that was still emerging. Flooding came out as the most dominant disaster that has displaced people from their homes and needed shelter or housing. It was also observed that 69% of respondents were the directors in charge during the last disaster that occurred in the county. When asked whether they were satisfied with the way their counties implemented its emergency management plan in providing for sheltering and housing, 71% of respondents answered ‘yes’. However, 36% felt there were still some major challenges that needed to be met.

Current practices in sheltering focused on meeting the needs of individuals. Sheltering options could range from individuals managing their own needs by temporarily staying with friends and family to establishing emergency shelters for those who are unable to meet their own sheltering needs. In many instances, many people who are forced from their homes find temporary accommodations without assistance. They had emergency plans well before a disaster occurs and stay in motels, hotels, or with friends and family. This is one of the reasons why the non utilization of shelters is so high in some counties in Ohio. County directors also said that major or catastrophic disasters require more intensive sheltering support. When the demand for shelters exceed capacity or traditional shelters are not available, planners and emergency managers may need to use unconventional sheltering options, such as , tents, vacant buildings, military barracks, dormitories, prefabricated structures designed for congregate settings.

The research also found out that in major or catastrophic disasters, not only will the number of people requiring shelter support be large, but extensive damage to structures and the infrastructure will likely limit sheltering options and result in substantially longer shelter operational periods. The findings in this study agree with the literature that participation rate for shelters have always been very low as victims first seek shelter with friends and family and only use county shelters as their last resort.

There were mixed responses when county directors were asked whether they have plans for special needs population. Eighteen percent of respondents said they have such plans, while another 18% did not have such plans. Functional needs shelters or units serve individuals with functional needs who require additional support. These individuals, who are normally able to live independently, may face challenges in a general population shelter. At the same time they do require the level of care provided in a medical support shelter. Functional needs shelters have additional personnel and equipment and provide space to accommodate caregivers and equipment. These shelters can meet the needs of the fragile elderly adults, women in their later stages of pregnancy and individuals with impaired cognitive ability.

Sixty four percent of County directors complained that there is administrative difficulty in getting FEMA to reimburse States for rescuing, caring for, sheltering and providing for the essential needs to individuals with household pets, as well as the household pets themselves. In addition to the Stafford Act, as amended by the Post-Katrina Emergency Management Reform Act and the Pets Evacuation and Transportation Standards Act, FEMA is required to develop standards for local and State emergency preparedness operational plans to take into account the needs of individuals with household pets prior to, during, and following a major disaster or emergency.

Another major finding of the research was in the area of quantity of staff and quality of personnel working for the County EMA. It was observed that 15% of county directors had high school diplomas, while the numbers of directors with graduate or professional degrees were at 9%. During the one on one interviews with the county directors, the dominant theme that came out were the inadequacy and quality of personnel working for the EMA. Fifty nine percent of the directors complained about personnel not being hired on merit but based on political patronage. Such attitudes they said deprives the EMA of quality personnel and talents in the field.

The laws and policies governing disaster management in this country are so many that most county directors are not even aware of most of them. When asked about how familiar they were with the provisions of Post-Katrina Emergency Management Reform Act 2006 and other relevant sections of Stafford Act, 40% of county directors said they were not familiar with such a law. This law was passed in 2006 after the abysmal response to and recovery from the aftermath of Hurricane Katrina. Five (5) years down the road after Katrina, most county directors are still not familiar with the provisions of this law. Politics and bureaucracy in emergency management operations was another major finding from the research. Seventy five (75) percent of county directors who responded said they were worried about the interference of political leaders in emergency management operations. They said that some of these political leaders have no formal basic training in emergency management and therefore does not see things from their perspective.

Another finding was that backward mapping form of implementation was not seen very much as the favored approach to policy implementation in most of the counties. According to Richard Elmore (1980), implementation research is long on description and short on prescription. Forward mapping is the strategy that comes most readily to mind when one thinks about how a policymaker might try to affect the implementation process. It usually begins at the top of the process, with clear statement of intent, and proceeds through a sequence of increasingly more specific steps to define what is expected of implementers at every level. At the bottom of the process, one states again with as much precision as possible what a satisfactory outcome would be, measured in terms of the original statement of intent. Backward mapping begins at the last possible stage of the implementation process, the point where administrative actions intersect private choices. It also begins with a statement of specific behavior at the lowest level of the implementation process that generates the need for policy. The politicians would always want to use the forward mapping approach so that they could keep control of what goes on in every department.

4.1 Conclusion and Policy Implications

While this study is centered on counties in the State of Ohio, it has important potential implications regarding the implementation of shelter and housing programs for impacted victims in the whole of the country.

All disasters are local and therefore recovery efforts must begin locally. However, this study has a policy implication for state political leaders as to how they deal with county directors of emergency management agencies. Recovery will remain problematic for the foreseeable future because it is very messy, difficult to do, and requires long-term attention and resources. There are so many variables at the community level, and so many competing demands and requirements to an extent that each community needs to determine its own vision and needs. Many jurisdictions, especially the smaller ones will need assistance with all aspects of their emergency management operations. Recovery process takes many years and often decades. Practitioners need to know that the agencies involved at all levels of government, need to be ready for that lengthy stay. Researchers also need to know that and act accordingly, i.e., longitudinal studies may be needed, not one-time case studies.

This study aimed to contribute further understanding surrounding the implementation of shelter and housing programs for impacted victims in the aftermath of disasters. The main responsibilities for recovery remain with local and state governments (Torry, 1978). Rethinking policies and practices at every level of government would be an important first step toward addressing the neglect of community recovery in recent years. After the Katrina debacle, it was logical to assume that both public opinion and government policies will be increasingly alert to the problems of people displaced by disasters. As such, political leaders as well as technocrats have vested interest in mitigating the effects of disaster related displacement. However, which strategies are most appropriate is debatable because of the ambiguous nature of what might constitute prudent and proper precautionary measures, especially in the realm of sheltering and housing policy (Tucker, 2006).

Scholars have long noted that states vary widely in terms of the disaster-related policies they adopt, due in part to political and economic factors and disaster experience (Birkland 1996, 1997, 2006; May 1988). Moreover, policy responses to disasters tend to be highly politicized by the urgency of the moment which improves the odds that new policies may be inadequate, dysfunctional, or tainted by hidden consequences (Schneider, 1992). According to Levine; Esnard and Sapat(2007), preliminary research indicates that some states have been proactive in providing incentives for strengthening existing structures and encouraging adoption of other mitigation measures, while others have been slow to do so. Although, this was case study and as such findings not generalizable to other places because of the uniqueness of every state within the Union, it offered some insights into the problem of implementation of disaster housing policies in the United States.

4.2 Limitations of the Study

There were some limitations to this study. First, this is an exploratory study making it very difficult to obtain data and resources on this topic. Second, the study focuses on heads of county emergency management agencies in the state of Ohio and as such, the findings may not be generalizable to other counties in other states. In using the critical incident technique, it could also be difficult for people to recall and retell incidents long after they have happened.

4.3 Recommendations

Counties in the State of Ohio in the pursuit of more complete information about the potential displacement and its aftermath would benefit from the deployment of backward mapping approach to policy implementation. The analytic solution offered by forward mapping stresses factors that tend to centralize control and that are easily manipulated by policymakers: funding formulas; formal organizational structures; authority relationships among administrative units; regulations; and administrative controls in terms of budget and planning. On the other hand the solution offered by backward mapping stresses the dispersal of control and concentrates on factors that can only be indirectly influenced by policymakers: knowledge and problem-solving ability of lower-level administrators; incentive structures that operate on the subjects of policy and the strategic use of funds to affect discretionary choices. Much of the actual discretion used in public administration is used at the very bottom of the hierarchy, where public servants touch the public. Although discretion under backward mapping approach to implementation is to be carefully bounded, contained and controlled, it has proven to be the more successful of the two approaches. To fully understand the political, intergovernmental, economic, and social factors surrounding short and long-term displacement, case studies of individual states and regions should be conducted. This mode of inquiry would allow exploration of factors not captured in quantitative indices. Additional data for the case study can be drawn from survey questionnaires and focus groups involving disaster victims themselves, as well as regulations, statutes and white papers.

Overall, research on disaster related housing and sheltering is still developing. The complex interactions among vulnerability, social relationships, and housing require holistic approaches rather than myopic piecemeal efforts. From the study, many of the factors that can lead to displacement are poorly understood, in part because of our lack of experience with events that cause displacement. For far too long, we as a country have regarded major disasters as singular, one-time, localized events. Until the scale, complexity, and all dimensions of these concerns are investigated, adequate policy responses cannot be developed, much less implemented.

This study also showed that too much local politics and bureaucracy have not helped in emergency management in general and recovery efforts in particular. Local political leaders must be made to have basic training in emergency management so that they would understand how to support the efforts of the county directors. Politicians should also know that influencing the hiring of employees to work for the emergency management department would do more harm than good. The policy implications of this study are that political patronage in all its form should be stopped at all cost. The study also showed that about fifteen (15) percent of county directors who responded have high school diplomas. The implications of this study is that while there is no direct correlation between higher education and experience on the job, it is recommended that county directors with high school diplomas should be incentivized to get more formal education and continuous professional development with the Emergency Management Institute to sharpen their skills and knowledge of the basic laws governing disaster management in the state. Another recommendation is that county management agencies must have emergency management plans that cater for special needs population and pets. Although the law exists for such plans to be in place, it is recommended that they are enforced strictly to the letter.

It is also recommended that there is the delivery of consistent, accurate, accessible, and timely shelter information during disasters. The absence of a real-time comprehensive understanding of shelter operations during a disaster can hinder decision making, result in inefficiencies and inhibit delivery of adequate services to meet the immediate needs of disaster victims. While shelter registry information is not always seen as critical, it is essential in forecasting the supplies and support services that may be needed. Moreover, it could provide important shelter status information to local incident command and emergency management agencies. Counties must be made to have back-up power generators in alternative locations so that Emergency Operation Centers and Incident Command would have source of power for their operations in the aftermath of disasters. There should also be the promotion of communication kits to be used by families during a disaster. These kits could include notification that citizens are on their own for the first 72 hours. There should also be promotion of the reverse 911 system to ensure effective communication during disasters. Communication could also be enhanced by using crank radios. Counties should address implementation challenges for special needs (gender, handicapped, non-English speaking population).

4.4 Future Research Directions

Several ideas for future research could add depth to this study. Future research may include the following:

- An important recommendation for future research is to create a longitudinal study from this study examining what county directors have done overtime regarding the removal of implementation barriers to sheltering and housing.
- There could also be a future research involving the impacted victims themselves to ascertain what they think could be do to improve disaster sheltering and housing in the state.
- There could also be the study into the core competencies of county directors in order to know their skill set and knowledge level in disaster recovery.
- Future studies could be conducted into the creation of tax incentives for hazard mitigation in housing and this would require insurers to offer discounts to policyholders who have undertaken significant mitigation. Any substantial reduction of recovery costs will require a substantial reduction of existing risks. Saving post-disaster repair costs for individuals as well as for governments will require a serious commitment to mitigation through incentives to reduce losses.
- A researcher may look into studying the implementation of a comprehensive national shelter information system that uses existing systems and provides accurate and timely information on shelters across the country. While this information is typically available within a community, it is sometimes not available at the State, regional, or Federal level. The system would need to be interoperable, use existing State and local shelter information systems, and enable communication and sharing of data among all stakeholders.

- Future research could also be conducted into letting the market place sort out the winners and losers after the disaster, focusing government and charitable aid only on the emergency period.
- Future studies could also concentrate on looking at creative knowledge since it is usually more important than formal education.

References

- Alexander, D. (1993). Natural Disasters. New York, Chapman and Hall.
- Bazeley, P. (2007). Qualitative Data Analysis with NVivo, Sage, London.
- Berry, R. (2005). Web-based survey research: Lessons from the University of Akron Study. International Journal of Public Administration, Vol. 28, 1&2, 57-72.
- Birkland, T.A. (1996). Natural disasters as focusing events: Policy communities and political response. International Journal of Mass Emergencies and Disasters 14: 221-243.
- (1997). After disaster: Agenda setting, public policy, and focusing events. Washington, DC: Georgetown University Press.
- (2006). Lessons of disaster: Policy change after catastrophic events. Washington, DC: Georgetown University Press.
- Bolin, R. (1985). Disasters and long-term recovery policy: A focus on housing and families. Policy Studies Review 4 (4): 709-715.
- Bolin, R. (1986). Disaster Impact and Recovery: A comparison of Black and White Victims. International Journal of Mass Emergencies and Disasters 4(1):35-50
- Bolin, R. and P.A. Bolton. (1986). Race, Religion and Ethnicity in Disaster Recovery. Institute of Behavioral Science, University of Colorado, Boulder.
- (2007). Shelter, Housing and Recovery: A comparison of U.S. Disasters. Disasters Vol. 15, 1 Pages 24-34.
- Burns, A.C.; Williams, L.A. and Maxham, J.J. III. (2000). Narrative text biases attending to Critical Incident Techniques. Qualitative Market Research: An International Journal, Vol.3, No. 4 pp. 178-186.
- Byrne, M. (2001). Critical incident technique as a qualitative research method. AORN Journal, Vol.74 No. 4, October, pp.53-56.
- Carley, W.K. (2009). Journal of Homeland Security and Emergency Management, Volume 6, Issue 1
- Cole, S.T. (2005). Comparing mail and Web-based survey distribution methods: Results of surveys to leisure travel retailers. Journal of Travel Research, 43, 441-452.
- Comerio, M.C. (1997). Housing issues after Disasters. Journal of Contingencies and Crisis Management, September 1997, 5(3), 166-178
- (1998). Disaster hits home: New policy for urban housing recovery. Berkeley: University of California Press.
- Creswell, J.W. (2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 2nd Ed.: Sage Publications Inc.
- Davis, I. (1978). Shelter after Disaster. Oxford Polytechnic Press, Oxford
- Davis, P.J. (2006). Critical incident technique: a learning intervention for organizational problem solving. Development and learning in Organizations, Vol.13, p.16.
- Department of Homeland Security. (2004). National Response Plan (Washington, D.C: DHS, 2004), 14-1, available at dhs.gov/NRP, accessed September 24, 2009)
- Douglas, J.A; McClelland, R; Davies, J and Sudbury, L. (2009). Using critical incident technique (CIT) to capture the voice of the student. The TQM Journal, Vol.21, No.9. Emerald Group Publishing.
- Drabek, T and Hoetmer, G. (1991). Emergency Management: Principles and Practices for local Government. Washington, DC. International City Management Association.
- Dyson, M.E. (2005). Come Hell or High Water: Hurricane Katrina and the color of disaster. Basic Cavitas, New York.
- Edvardsson, B. and Roos, I. (2001). Critical incident techniques: towards a framework for analyzing the criticality of critical incidents. International Journal of Service Industry Management, Vol. 12 No.3, pp. 251-268.
- Enarson, E and Morrow, B.H.(1998). The Gendered Terrain of Disaster: Through Women's Eyes. Westport, Connecticut.
- Federal Emergency Management Agency (2009). National Housing Strategy
- FitzGerald, K; Seale, N.S; Kerins, C.A and McElavaney, R. (2008). The Critical Incident Technique: A Useful Tool for Conducting Qualitative Research. Journal of Dental Education, Vol. 72, Number 3
- Flanagan, J.C.(1954). The critical incident technique. Psychological Bulletin, Vol. 51 No. 4, pp. 327-358.
- Fothergill, A; Darlington, J.A and Maestas, E. (1999). Race, Ethnicity and Disasters in the United States: A Review of the Literature. Disasters 23, No. 2, 156-173.

- Fricker, R.D. & Schonlau, M. (2002). Advantages and disadvantages of Internet research surveys: Evidence from the literature. Field Methods, 14, 347-367.
- Gould, C.W. (2009). Harvard Human Rights Journal. Vol. 22
- Handmer, J and Dovers, S. (2007). The Handbook of disaster and emergency policies and institutions. Earthscan, USA.
- Johnston, R.(1995). The determinants of service quality: satisfiers and Dissatisfiers. International Journal of Service Industry Management, 6(5), 53-71.
- Kemppainen, J.K. (2000). The critical incident technique and nursing care quality research. Journal of Advanced Nursing, Vol. 32 No. 2, pp.55-62
- Kettl, D.F. (2007). System under stress: Homeland Security and American Politics, 2nd Edition, CQ Press
- Levine, J.N; Esnard, A.M and Sapat, A. (2007). Population displacement and housing dilemmas due to catastrophic disasters. Journal of Planning Literature, Vol. 22, No.
- May, P.J and Williams, W. (1986). Disaster Policy Implementation: Managing Programs under shared governance. University of Washington, Seattle-Washington.
- May, P. J. (1985). Recovering from catastrophes: Federal disaster relief policy and politics. Greenwood Press, Westport-Connecticut.
- _____. (1988). Disaster recovery and reconstruction. In Louise Comfort(Ed). Managing Disaster: Strategies and Policy Perspectives. Durham, NC: Duke University Press.
- Mileti, D.S. (1999). Disasters by Design: A Reassessment of Natural Hazards in the United States, Joseph Henry Press, Washington, D.C
- Miskel, J.F. (2008). Disaster response and Homeland Security: What works, what doesn't? Standard University Press.
- Oliver-Smith, A. (1999). Post-disaster housing reconstruction and social inequality: challenge to policy and practice. Disasters, vol. 14, 1989, pp. 7-19.
- Perry, R.W and Quarantelli, E.L.(2005). What is a Disaster? New Answers to Old Questions. Philadelphia: Xlibris.
- Petak, W.J. (1985). Emergency Management: A Challenge for Public Administration. Public Administration Review, Vol. 45(Jan., 1985), pp.3-7
- Philips, B.D. (1993). Cultural Diversity in Disasters: Sheltering, Housing and Long –Term Recovery. International Journal of Mass Emergencies and Disasters 11, No.1 99-110.
- Pressman, J.L and Wildavsky, A. (1973). Implementation: How great expectations in Washington are dashed in Oakland. University of California Press, Berkeley-Los Angeles.
- Quarantelli, E.L. (1982). General and particular observations on shelter and housing in American disasters. Disasters 6:277-281
- _____. (1986). Research findings on organizational behavior in disasters and their applicability in developing countries. Preliminary Paper 107. Newark, DE: Disaster Research Center, University of Delaware.
- _____. (1995). Patterns of sheltering and housing in U.S. disasters. Disaster Prevention and Management, 4 (3):43-53.
- Rubin, C. (1981). Long Term Recovery from natural disasters: A comparative analysis of six local experiences. Washington, DC: Academy for Contemporary Problems.
- _____. 1985. The Community Recovery Process in the United States after a major natural disaster. International Journal of Mass Emergencies and Disasters 3: 10-28.
- Schneider, S.K. (1992). Governmental response to disasters: The conflict between bureaucratic procedures and emergent norms. Public Administration Review, Vol. 52, No.2 (Mar-April 1992).
- Smith, G and Wenger, D. (2006). Sustainable disaster Recovery: Operationalizing and existing framework. In H. Rodriguez, E. Quarantelli and R. Dynes (Eds). Handbook of Disaster Research (pp. 234-257). New York: Springer).
- Steinberg, T. (2000). Acts of God: The Unnatural History of Disasters in America. New York: Oxford University Press.
- Squires, G and Hartman, C. (2006). There is no such thing as a natural disaster. Race, Class and Katrina. Routledge.
- Sylves, R.T.(2008). Disaster Policy and Politics: Emergency Management and Homeland Security. C.Q Press, Washington-DC.
- Sylves, R.T and Waugh, W.L Jr.(1996). Disaster management in the U.S. and Canada: The Politics, Policymaking, Administration and Analysis of Emergency Management. Springfield, IL: Charles C Thomas
- Torry, W. (1978). Bureaucracy, community and natural disasters. Human Organization 37:302-308.
- Tucker, E. (2006). Working disasters: The politics of recognition and response. Baywood Publishing Company, Amityville, New York.
- Waugh Jr, W.L. (2000). Living with Hazards, Dealing with Disasters: An introduction to Emergency Management. M.E. Sharpe, New York.
- Waugh Jr, W.L and Tierney, K. (2007). Emergency Management: Principles and Practice for Local Government (2nd Ed): ICMA Press.