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THE DISPOSABLE CLASS: ENSURING POVERTY CONSCIOUSNESS IN NATURAL DISASTER PREPAREDNESS

EMILY NASER-HALL

I. INTRODUCTION

Jackie, a woman of mixed race heritage and mother of four children, lost her home during Hurricane Katrina. After the storm, she and her children lived for months in a Federal Emergency Management Agency (FEMA) trailer outside her hometown of New Orleans. Jackie, her children and her boyfriend shared a small trailer registered in her boyfriend's name. When her boyfriend was caught smoking marijuana in violation of FEMA's zero tolerance policy, FEMA repossessed the trailer and permanently evicted Jackie's family. Jackie and her children were forced to move from trailer to trailer, unsettled and confined within a FEMA site that resembled a refugee camp. Left without a job or school for her children to attend, Jackie relied entirely on FEMA, which offered few services or benefits in its camps and so neglected its trailers that the Centers for Disease Control condemned the FEMA trailers as toxic. The whereabouts of Jackie and her four children since the closure of the FEMA trailer camps are unknown.¹

Jackie's story represents the experiences of countless other individuals who, because of their social vulnerabilities, disproportionately suffered the adverse effects of a natural disaster when the federal, state and local governments that were responsible

¹ For Jackie's full story and the stories of other victims of Hurricane Katrina, see Susan L. Waysdorf, "Returning to New Orleans: Reflections on the Post-Katrina Recovery, Disaster Relief, and the Struggle for Social Justice," 12 U.D.C. L.Rev. 3 (2009).

for protecting them failed to make plans for addressing their unique needs. Simple considerations such as transportation and communication are often essential in an effective emergency plan, and the inability to access such essentials can be a matter of life and death to vulnerable populations. The National Disaster Response Framework and its Emergency Support Functions contain language impressing upon state and local governments, who have the primary responsibility of planning for disasters, the need to specifically address vulnerable populations, but they lack clear and detailed guidance for achieving that goal.

This paper argues that the National Disaster Response Framework, its Emergency Support Functions, and other federal, state and local provisions that relate to emergency preparation must be amended to more specifically and clearly provide for the needs of vulnerable populations. It focuses on natural disaster preparedness because such disasters can often be anticipated and planned for to a greater extent than man-made disasters, which tend to occur without warning. It ultimately argues that poverty reduction strategies must be employed at all times, and not merely in times of emergency preparation, so the needs of vulnerable communities can be met in anticipation of a disaster.

Part II of this paper will outline the particular vulnerabilities that communities living in poverty can suffer during natural disasters. In particular, vulnerable populations run the risk of being the most affected victims of disasters due to their lack of access to transportation or means of communication through which to hear emergency warnings. This section will then discuss three case studies in which poverty considerations and the needs of vulnerable communities played a significant role: Hurricane Katrina in 2005, the Joplin tornado in 2010 and Hurricane Sandy in 2012. Part III will examine the National Disaster Recovery Framework, particularly its core principles, and the Emergency Support Functions to determine how the needs of vulnerable populations are considered in the federal govern-

ment's plans for preparing for and responding to disasters. Part IV of this paper will then provide recommendations for incorporating specific poverty-conscious measures into the National Disaster Recovery Framework and its Emergency Support Functions and in state and local government pre-disaster recovery planning. It will finally argue that poverty reduction must be an ongoing process as a disaster preparedness strategy so the needs of vulnerable populations are considered at all times and do not pose their own concerns during the planning stages of a disaster.

II. POVERTY'S ROLE IN NATURAL DISASTERS

A. *The Particular Vulnerabilities of Populations in Poverty During Natural Disasters*

As natural disasters become more prevalent and affect a broader geographical area within the United States, many federal, state, local and private actors are investing more resources in disaster preparedness initiatives. Disaster preparedness efforts are improving to respond to these new challenges, but for the most part, these efforts still fail to adequately address the specific needs of vulnerable populations. During natural disasters, vulnerable populations may include individuals with disabilities, pregnant women, children, the elderly, prisoners, members of ethnic minorities, people with language barriers and people living in poverty.² A review of thirty-seven national disaster preparedness initiatives worldwide reveals that "none of the plans suggested any systemic attempt to identify" vulnerable populations, and fewer than twenty-five of those plans included

² Sharona Hoffman, "Preparing for Disaster: Protecting the Most Vulnerable in Emergencies," 42 U.C. Davis L. Rev. 1491, 1493 (2009).

provisions specifically designed to address the needs of “one or more economically or socially disadvantaged groups.”³

Lack of consideration of vulnerable populations’ needs can result in high death tolls and deepening of poverty conditions in the post-disaster social landscape.⁴ While natural disasters have typically been viewed as equalizing “acts of God” that affect all strata of a community equally and without discrimination,⁵ recent studies on the specific effects of natural disasters on individuals living in poverty reveal that disasters are not in fact “status levelers” but rather increase the vulnerability of already-vulnerable populations.⁶ Sociologists demonstrate that one’s position within society determines one’s life experiences, relationships and opportunities; during a disaster, social status can be a matter of life or death.⁷

Individuals living in poverty suffer from particular vulnerability, defined as “a person’s or group’s capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard.”⁸

³ Lori Uscher-Pines *et al.*, “Planning for an Influenza Pandemic: Social Justice and Disadvantaged Groups,” 37 *Hastings Center Rep.* 32, 38 (2007); Hoffman, *supra* note 2, at 1493-94.

⁴ David Hall, “Katrina: Spiritual Medicine for Political Complacency and for Social Activists Who are Sleepwalking,” 23 *Harvard BlackLetter L.J.* 1, 2 n.4 (2007) (claiming that over 1,800 people died during Hurricane Katrina because they were unable to evacuate the city); Katherine Pratt, “Deficits and the Dividend Tax Cut: Tax Policy as the Handmaiden of Budget Policy,” 41 *Ga. L. Rev.* 503, 558-59 (2007) (asserting that over 75% of Katrina victims were over sixty years of age); Hoffman, *supra* note 2, at 1494.

⁵ Alice Fothergill and Lori A. Peek, “Poverty and Disasters in the United States: A Review of Recent Sociological Findings,” *Natural Hazards* 89, 89 (2004).

⁶ See generally Fothergill and Peek, *supra* note 5; Hoffman, *supra* note 2; Claude de Ville de Goyet and Andre Griekspoor, “Natural Disasters, the Best Friend of Poverty,” 14 *Geo. J. on Poverty L. & Pol’y.* 61 (2007); B.E. Aguirre, “Dialectics of Vulnerability and Resilience,” 14 *Geo. J. on Poverty L. & Pol’y.* 39 (2007).

⁷ Fothergill and Peek, *supra* note 5, at 90.

⁸ Fothergill and Peek, *supra* note 5, at 90; see also Aguirre, *supra* note 6, at 44 (claiming that low-income populations also lack disaster resilience, defined as “the ability to ‘bounce back’ and continue to function” as well as

Economically disadvantaged individuals generally lack resources and adequate support systems.⁹ Other subsets of individuals living in poverty, particularly undocumented individuals and individuals with language barriers, suffer their own disadvantages. For example, undocumented individuals fear approaching government actors to seek assistance due to their apprehension of being punished for immigration violations, while individuals with limited or nonexistent English language abilities simply do not understand government-issued warnings and advisories.¹⁰ Despite the specific scenarios of individuals living in poverty, their disaster vulnerability results from a number of factors, including a dearth of social and economic resources upon which other populations rely during disasters;¹¹ heightened levels of risk perception coupled with the feeling of little control over one's life or the world at large;¹² and limited ability to engage in recommended preparedness behavior.¹³

This limited ability to prepare for an oncoming natural disaster accounts for a good deal of the augmented adversity suffered by individuals living in poverty during disasters. Much of the responsibility for avoiding some of the negative effects of natural disasters lies at the individual level. Preparedness behavior involves the variety of actions that families, households, and communities take to get ready for an oncoming disaster, including devising disaster plans, stockpiling emergency supplies and

“the ability to take action in anticipation of demands and known vulnerabilities to forestall or minimize them”).

⁹ Hoffman, *supra* note 2, at 1505.

¹⁰ Hoffman, *supra* note 2, at 1506; Int'l. Human Rights Law Clinic, Univ. of Cal., Berkeley Sch. Of Law, “When Disaster Strikes: A Human Rights Analysis of the 2005 Gulf Coast Hurricanes” 25-26 (2006), available at http://humanrights.vcop.edu/Berkeley/disaster_strikes_version2.pdf; Dennis P. Andrulis *et al.*, “Preparing Racially and Ethnically Diverse Communities for Public Health Emergencies,” 26 Health Aff. 1269, 1272 (2007).

¹¹ Hoffman, *supra* note 2, at 1496.

¹² Fothergill and Peek, *supra* note 5, at 91.

¹³ *Id.* at 92.

educating each other about the looming event.¹⁴ As socioeconomic status increases, so does preparedness behavior.¹⁵ For example, economically disadvantaged populations lack access to common means of communication that preparedness actors use to issue warnings and advisories.¹⁶ Furthermore, individuals living in poverty lack the financial resources to stockpile the recommended emergency supplies or prepare evacuation or shelter plans, given their lack of access to transportation or structurally sound locations in which to take shelter.¹⁷

Unless the needs of vulnerable populations are particularly addressed during the planning and response to natural disasters, members of this community are likely to suffer disproportionate harm during disasters.¹⁸ An absence of awareness of sociological vulnerability can result in unknown risks to disaster preparers and responders. Dr. Benigno Aguirre, a sociology professor at the University of Delaware and core faculty member of the Disaster Research Center, states that “disasters are moments of rupture in the ‘normal’ or taken-for-granted operations of social organizations” that reveal society’s most precarious vulnerabilities.¹⁹ These moments of rupture both disproportionately affect those living in poverty and have the potential to increase the number of chronically poor individuals.²⁰ As former Secretary General of the International Federation of Red Cross and Red Crescent Societies Didier Cherpitel stated, “Disasters seek out the poor and ensure that they stay poor.”²¹ Three recent natural

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.* at 93.

¹⁷ See de Ville de Goyet and Griekspoor, *supra* note 6, at 67 (noting that some of the underprivileged who were appropriately warned to evacuate did not have the necessary resources to do so because a large segment of the New Orleans population lacked personal vehicles and the city was unprepared to provide alternative means of evacuation for this segment).

¹⁸ Hoffman, *supra* note 2, at 1495-96.

¹⁹ Aguirre, *supra* note 6, at 45.

²⁰ De Ville de Goyet and Griekspoor, *supra* note 6, at 90.

²¹ *Id.* at 91.

disasters highlight the importance of poverty concerns during disaster preparedness efforts: Hurricane Katrina in 2005, the Joplin tornadoes in 2011 and Hurricane Sandy in 2012.

B. The Hurricane Katrina Experience

The destruction caused in the southern states by Hurricane Katrina, both a large hurricane and a catastrophic flood, in August 2005, vastly exceeded the devastation caused by any other major disaster, including the Chicago Fire of 1871, the San Francisco Fire and Earthquake in 1906 and Hurricane Andrew in 1992.²² Hurricane Katrina damaged more property than any previous natural disaster and killed more people than any other natural disaster since Hurricane San Felipe in 1928.²³ In total, the damage caused by Hurricane Katrina and the subsequent New Orleans flood cost approximately \$96 billion.²⁴

The human toll of Hurricane Katrina reveals even more disturbing information. When the hurricane and flood subsided, over 1,600 people had died, approximately 80% of which lived in the New Orleans metropolitan area and a majority of which were poor, African American or elderly.²⁵ Many people drowned in floodwaters, perished of starvation or dehydration while stranded on their rooftops, or died from intolerable conditions and contaminated drinking water in nursing homes or the New Orleans Superdome.²⁶ An estimated 770,000 people were displaced as a result of the hurricane and flood, but emergency responders at the federal, state and local levels failed to pro-

²² Federal Emergency Management Agency, Cong. Research Serv., *The Federal Response to Hurricane Katrina: Lessons Learned* 5 (January 2006) [hereinafter *Katrina Lessons Learned*].

²³ *Id.* at 6.

²⁴ *Id.* at 7.

²⁵ Waysdorf, *supra* note 1, at 5; *Katrina Lessons Learned*, *supra* note 22, at 8.

²⁶ Waysdorf, *supra* note 1, at 5.

vide alternate housing for people whose homes the storm destroyed.²⁷

The Gulf Region, and New Orleans in particular, faced serious poverty problems before Hurricane Katrina. The city of New Orleans lacked the necessary resources to address its poverty epidemic and failed to devise plans to evacuate or communicate disaster messages to its population living in poverty in case disaster struck.²⁸

Despite issuance of hurricane warnings in subsequent days, federal, state and local disaster preparedness actors noticed that many people along the Gulf Coast remained unaware of the oncoming storm.²⁹ When Louisiana began evacuating their populations, the state undertook little planning to assist the over 100,000 New Orleans residents who did not own an automobile or individuals with special needs or disabilities who had no independent means of evacuation.³⁰ Many New Orleans residents still lacked the necessary transportation to evacuate themselves, and the city of New Orleans provided no assistance other than repeated warnings to evacuate.³¹

On August 27, 2005, Louisiana began operating shelters for people who were unable to evacuate. Among these shelters were four special needs shelters, which were “intended for individuals who have no other resources and who need assistance that cannot be guaranteed in a regular shelter.”³² Louisiana opened four exclusively special needs shelters and prepared the New Orleans Superdome to cater to some special needs individ-

²⁷ Katrina Lessons Learned, *supra* note 22, at 8.

²⁸ Irwin Redlener, David M. Abramson, and Richard Garfield, “Lessons from Katrina: What Went Wrong, What Was Learned, Who’s Most Vulnerable,” 13 *Cardozo J.L. & Gender* 783, 787 (2008).

²⁹ Katrina Lessons Learned, *supra* note 22, at 25.

³⁰ *Id.* at 26.

³¹ *Id.*

³² *Id.*

uals, but these special needs shelters could not attend to individuals who needed substantial medical care.³³

Individuals who could not leave the city searched desperately for shelters; the New Orleans Superdome, initially operating with the capacity to handle special needs populations, became “shelters of last resort,” attempting to but generally failing to provide basic resources to somewhere between 10,000 and 12,000 people, including 300 to 500 special needs evacuees.³⁴ FEMA was unable to meet the demands for resources from the Gulf Coast shelters, and shelter conditions became so precarious that the American Red Cross refused to deploy their staff to the Superdome for fear that they would be put in harms way due to inadequate safety precautions.³⁵ After Hurricane Katrina made landfall in New Orleans and the levees broke, the United States Department of Health and Human Services declared the Superdome “uninhabitable” due to the dire lack of resources and gross overcrowding.³⁶

Post-Katrina studies on the effects of the disaster on vulnerable populations reveal that better planning to account for the needs of such populations could have saved many of the affected people and that these effects could have easily been predicted given the pre-Katrina socioeconomic makeup of the Gulf Region.³⁷ A study of Hurricane Katrina’s impact reveals the existence of a “poverty penalty,” in which economically disadvantaged individuals often suffer the most during disasters.³⁸ The images of stranded, desperate and dying New Orleanians became so pervasive because they revealed the extent of the abject

³³ *Id.*

³⁴ *Id.* at 29.

³⁵ *Id.*

³⁶ *Id.* at 39.

³⁷ See generally Steve Bowman, Lawrence Kapp, and Amy Belasco, Congress. Research Serv., Hurricane Katrina: DOD Disaster Response 14 (Sep. 19, 2005); see generally Redlener, Abramson, and Garfield, *supra* note 28; see generally Katrina Lessons Learned, *supra* note 22.

³⁸ Redlener, Abramson, and Garfield, *supra* note 28, at 786.

poverty and de facto racial segregation that existed in the city before the storm struck.³⁹ Hurricane Katrina disproportionately affected African American and poor communities in New Orleans, ultimately leading to the conclusions that special attention must be made to plan for the disaster needs of poor communities and that poverty reduction is not only a social good but also a necessary strategy for avoiding another disaster that so unequally affects a class of people.⁴⁰

C. The Joplin Tornado Experience

On May 22, 2011, an ES-5 tornado struck the city of Joplin in southwest Missouri, with winds exceeding 200 miles per hour and the 3/4-mile-wide cyclone cutting a six-mile path of destruction through the center of the city.⁴¹ The tornado caused 161 fatalities and approximately 1,371 injuries, making it the deadliest tornado in the United States since 1947.⁴²

Census data revealed the prevalence of poverty in the Joplin area. The 2009-2011 American Community Survey Three-Year Estimates, conducted by the United States Census Bureau, reported that 19.6% of all people living in Joplin lived below the poverty line, over 4% higher than the national average and the average for the rest of the state of Missouri.⁴³ Approximately

³⁹ Waysdorf, *supra* note 1, at 23.

⁴⁰ *Id.*; Thomas Gabe, Gene Falk, Maggie McCarty, and Virginia W. Mason, Congress. Research Serv., Hurricane Katrina: Social-Demographic Characteristics of Impacted Areas 16 (Nov. 4, 2005) ("The hurricane's impact on New Orleans also took a disproportionate toll on African Americans. An estimated 310,000 black people were directly impacted by the storm largely due to flooding in Orleans Parish. Blacks are estimated to have accounted for 44% of storm victims").

⁴¹ Federal Emergency Management Agency, Congress. Research Serv., The Response to the 2011 Joplin, Missouri, Tornado: Lessons Learned Study 3 (Dec. 20, 2011) [hereinafter Joplin Lessons Learned].

⁴² *Id.*

⁴³ United States Census Bureau, Selected Economic Characteristics: 2009-2011 American Community Survey Three-Year Estimates, *available at* <http://>

17.8% of the population of Joplin suffers from a disability, as compared to 12% in the rest of the country.⁴⁴ While only 1,249 of Joplin's 51,491 residents are foreign-born, over half of those foreign-born residents are not U.S. citizens; no data was provided for the survey concerning the language abilities of Joplin residents.⁴⁵

Following the 2011 tornado, FEMA conducted a study to determine the strengths and weaknesses of the disaster response. Among the strengths of the response, FEMA identified the City of Joplin's use of social media and "other innovative mechanisms" to communicate emergency information to the public and the City's preparation in the National Level Exercise 2011 to prepare for such disasters.⁴⁶ The Joplin tornado preparation and response indicated that federal, state and local disaster responders learned to some extent from the lessons of Hurricane Katrina.

First, Joplin's use of social media represented a recognition of modern, alternate means of communication; the city stepped outside of the box to try to reach more people in advance of the tornado to warn them of impending danger. City officials used press conferences, press releases, news alerts, email, YouTube videos and postings on the city's website and Facebook page to alert Joplin residents of emergency information.⁴⁷ This mix of traditional and social media proved useful for providing re-

factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_3YR_DP03&prodType=table.

⁴⁴ United States Census Bureau, Selected Social Characteristics in the United States: 2009-2011 American Community Survey Three-Year Estimates, *available at* http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_3YR_DP02&prodType=table.

⁴⁵ *Id.*

⁴⁶ Joplin Lessons Learned, *supra* note 41, at 3; *see also* EMS World, Lessons Learned from the Joplin Tornado 1 (May 1, 2012), *available at* <http://www.emsworld.com/article/10645834/lessons-learned-from-the-joplin-tornado> (identifying the implementation of regular disaster drills as a necessary precursor to a successful disaster response).

⁴⁷ Joplin Tornado Lessons Learned, *supra* note 41, at 16-17.

sidents with Internet access with necessary information about sheltering, disaster recovery centers, applying for FEMA assistance and FEMA's Expedited Debris Removal program.⁴⁸ However, Facebook updates and "tweets" were unlikely to reach the 19.6% of Joplin residents living in poverty who lack access to the Internet.

Furthermore, Joplin was the first locality to implement Presidential Policy Directive 8: National Preparedness (PPD-8), which recommends an "all-of-Nation" approach to leverage all available capabilities in planning for disasters, and FEMA's Whole Community approach, which seeks to "move beyond traditional, government-centric disaster management models" and mobilize entire communities in preparation for disasters.⁴⁹ Signed on March 30, 2011, PPD-8 calls on federal departments and agencies to collaborate with whole communities to develop a national preparedness goal and a national preparedness system to describe the means to achieving the goal.⁵⁰ Similarly, FEMA's Whole Community approach seeks to involve individuals and families, including people with "access and functional needs," businesses, community organizations and all other sectors of society to prepare for disasters.⁵¹ The Whole Community approach emphasizes the necessity of non-traditional resources and their application in innovative ways "to save lives and sustain communities after catastrophic disasters."⁵²

The Joplin tornado preparation and response, taking place almost six years after the Hurricane Katrina preparation and re-

⁴⁸ *Id.* at 16.

⁴⁹ *Id.* at 10; Federal Emergency Management Agency, Learn About Presidential Policy Directive 8 (Oct. 26, 2012), *available at* <http://www.fema.gov/preparedness-1/learn-about-presidential-policy-directive-8> [hereinafter Learn About PPD-8]; Federal Emergency Management Agency, Whole Community (Nov. 28, 2012), *available at* <http://www.fema.gov/preparedness-1/whole-community> [hereinafter Whole Community].

⁵⁰ Learn About PPD-8, *supra* note 49.

⁵¹ Whole Community, *supra* note 49.

⁵² Joplin Tornado Lessons Learned, *supra* note 41, at 10.

sponse, showed some progress in improving disaster preparation to address the needs of vulnerable populations. The Joplin response indicates that a Whole Community approach can mobilize the population of an affected area to help each other. In short, disaster preparation responded to the lessons from Katrina, but it still lacked total poverty consciousness.

D. The Hurricane Sandy Experience

In late October 2012, Hurricane Sandy impacted a wide swath of the northeastern United States.⁵³ Hurricane Sandy caused approximately 130 deaths in the Northeast and caused an as-yet incalculable amount of damage.⁵⁴ What is known about the economic impact of Hurricane Sandy reveals immense costs; on December 8, 2012, President Obama asked Congress to approve a \$60.4 billion emergency aid package to assist in recovery efforts from Hurricane Sandy.⁵⁵

Due to the recency of Hurricane Sandy and the ongoing nature of its response, the effectiveness of preparation and response to the storm cannot be fully assessed in terms of its attention to vulnerable populations. The death toll remains significantly smaller than that of Hurricane Katrina, but it is estimated that in the immediate aftermath of Sandy, a few thousand small businesses in New York City have ceased operations since the storm and that approximately 10,000 jobs have been lost.⁵⁶ One year later, an estimated 26,000 New Jersey natives

⁵³ Federal Emergency Management Agency, Hurricane Sandy (Dec. 7, 2012), *available at* <http://www.fema.gov/hurricane-sandy> [hereinafter FEMA Hurricane Sandy].

⁵⁴ Amy Gardner and Ed O'Keefe, The Washington Post, "White House Makes Request for Hurricane Sandy Federal Aid," (Dec. 8, 2012), *available at* http://www.washingtonpost.com/politics/white-house-makes-request-for-hurricane-sandy-federal-aid/2012/12/07/8ef2902e-40be-11e2-bca3-aadc9b7e29c5_story.html.

⁵⁵ *Id.*

⁵⁶ Patrick McGeehan, The New York Times, "Lower Manhattan Residents and Businesses Still Grapple with Recovery," (Dec. 9, 2012), *available at*

have been unable to return to their homes; approximately \$4.6 billion in property values have been lost on over 40,000 homes; and reconstruction following the storm has cost \$65 billion, the nation's second costliest natural disaster recovery after Hurricane Katrina, whose recovery cost \$125 billion.⁵⁷

Despite the lack of assessment concerning the effectiveness of Hurricane Sandy preparation and response, some assumptions can be made concerning the growth in federal, state and local attention given to vulnerable populations. For example, FEMA stretched beyond its previous attempts to disseminate information to potentially affected communities, striving to reach as many people as possible. FEMA blogs and social media sites such as Facebook and Twitter published pre-hurricane articles on staying safe and helping disaster survivors.⁵⁸ Also, FEMA published all of its Hurricane Sandy information in fourteen languages.⁵⁹ A Red Cross Hurricane app and the FEMA app allowed individuals with smartphones to access emergency warnings and disaster information from any location, and an automated system allowed cell phone users to search for shelter information via text message.⁶⁰ FEMA deployed personnel and community relation's teams to go door-to-door in the hardest hit areas to inform disaster survivors about available resources and services and to gather situational awareness.⁶¹

Furthermore, the United States Census Bureau began the 2012 hurricane season with an increase in online resources for

<http://www.nytimes.com/2012/12/10/nyregion/lower-manhattan-continues-to-grapple-with-recovery.html?pagewanted=all>

⁵⁷ "Hurricane Sandy Anniversary: No Relief for Some Victims," The Weather Channel, *available at* <http://www.weather.com/news/hurricane-sandy-victims-rebuilding-insurance-20131013> (last visited on October 15, 2013).

⁵⁸ FEMA Hurricane Sandy, *supra* note 53.

⁵⁹ *Id.* FEMA published this information in English, Chinese, French, German, Haitian Creole, Hebrew, Italian, Korean, Polish, Portuguese, Russian, Spanish, Tagalog, and Yiddish.

⁶⁰ *Id.*

⁶¹ *Id.*

emergency planners on how to use census information to better prepare for disasters.⁶² Such resources include demographic and housing characteristics; charts and thematic map overlays with population and worker origin information; local-level information on populations that may be vulnerable in emergencies, such as people with disabilities, without transportation or who live in mobile homes; and historical reports concerning the nation's coastline county census data to project current census information.⁶³ The Census Bureau's program on using census data to prepare for emergencies allows emergency planners at all levels to use information about potentially vulnerable populations in order to address the specific needs of those populations and plan for those needs in advance of a disaster.

Finally, although they received some comedic backlash, Mayor Michael Bloomberg's frequent pre-hurricane press conferences included new language features intended to increase the scope of viewers who would understand his emergency message. On October 29, 2012, Mayor Bloomberg held a press conference to inform New York City residents about the oncoming dangers of Hurricane Sandy.⁶⁴ After announcing his message in English, Mayor Bloomberg repeated his warnings in Spanish.⁶⁵ The Mayor also used his official sign language interpreter, Lydia Callis, to deliver the news to the hearing impaired.⁶⁶ While the reviews of Mayor Bloomberg's Spanish and Lydia Callis's over-the-top facial expressions remain mixed,⁶⁷ the local govern-

⁶² See generally United States Census Bureau, Census Data and Emergency Preparedness: Hurricane Sandy (Nov. 5, 2012), *available at* <http://www.census.gov/newsroom/emergencies/> [hereinafter Census Data and Emergency Preparedness].

⁶³ *Id.*

⁶⁴ Joe Coscarelli, New York Magazine, "Hurricane Sandy's Breakout Star: Mayor Bloomberg's Sign Language Interpreter," (Oct. 29, 2012), *available at* <http://nymag.com/daily/intel/2012/10/bloomberg-sign-language-interpreter-lydia-calas.html>.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

ment's attempts to reach as many New York City residents as possible, including those with limited or nonexistent English language abilities and the hearing impaired, represent a recognition that emergency preparedness must strive to assist all members of society, particularly vulnerable populations.

III. POVERTY CONSCIOUSNESS IN THE NATIONAL DISASTER RECOVERY FRAMEWORK

A. The National Disaster Recovery Framework Core Principles

The National Disaster Recovery Framework (NDRF) outlines the concepts and principles that guide effective Federal assistance to state and local governments in their preparation and response to disasters.⁶⁸ The NDRF links the functions and capabilities of federal, state, local, and tribal governments and community organizations that play vital roles in disaster preparation and recovery.⁶⁹ Over six-hundred stakeholders from federal, state, local and tribal groups, as well as public and private sector organizations, contributed to the development of the NDRF.⁷⁰

As the leading operational framework on national disaster preparation and response, the NDRF reflects nine core principles as significant themes and recommendations around which disaster preparation and response efforts across the country are to be centered.⁷¹ When utilized, these principles "maximize the opportunity for achieving recovery success."⁷² These principles

⁶⁸ Federal Emergency Management Agency, National Disaster Response Framework 3 (Sep. 2011) [hereinafter NDRF].

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.* at 9. The core principles are Individual and Family Empowerment; Leadership and Local Primacy; Pre-Disaster Recovery Planning; Partnerships and Inclusiveness; Public Information; Unity of Effort; Timeliness and Flexibility; Resilience and Sustainability; and Psychological and Emotional Recovery.

⁷² *Id.*

highlight the necessity of incorporating all sectors vulnerable to a potential disaster and reflect FEMA's Whole Community approach.

For example, the first recovery core principle is Individual and Family Empowerment. In its definition of this principle, the NDRF states:

All community members must have equal opportunity to participate in community recovery efforts in a meaningful way. Care must be taken to assure that actions, both intentional and unintentional, do not exclude groups based on race, color, national origin (including limited English proficiency), religion, sex, or disability. Care must be taken to identify and eradicate social and institutional barriers that hinder or preclude individuals with disabilities and others in the community historically subjected to unequal treatment from full and equal enjoyment of the programs, goods, services, activities, facilities, privileges, advantages, and accommodations provided.⁷³

The NRDF's creators and stakeholders explicitly ensured that a clear, unequivocal message was included, not only as an important factor, but as a core principle in disaster preparation and recovery success: the needs of vulnerable populations must be taken into account, and no one must be left behind in planning for and responding to a disaster. The NDRF further reinforces this premise through its explanations of its other core principles.⁷⁴

⁷³ *Id.*

⁷⁴ *Id.* at 10. For example, under the principle of Partnerships and Inclusiveness, the NDRF states that "partnerships and inclusiveness are vital for ensuring that all voices are heard from all parties involved in disaster recovery. . . . Inclusiveness in the recovery process includes individuals with disabilities and other access and functional needs. . . . Sensitivity and respect for social and cultural diversity must be maintained at all times." Furthermore, the explanation of the Public Information core principle includes the notion

Throughout the NDRF, the necessity of including members of vulnerable populations in the planning process and considering their particular needs when planning for a disaster becomes clear.⁷⁵ However, much of the NDRF's language is mere aspirational goals given that the federal government is intended to play a supporting role, and the NDRF serves as guidance for the state and local governments that hold the primary responsibility for devising and implementing their own disaster preparedness plans. The Emergency Support Functions, on the other hand, include more specific instruction for the federal agencies that assist state and local governments.

B. The Emergency Support Functions

The Emergency Support Function Annex to the NDRF provides the structure for coordinating federal interagency support for all federal responses to disasters in the United States.⁷⁶ The Emergency Support Functions (ESFs) are “mechanisms for grouping functions most frequently used to provide Federal

that “clear, consistent, and culturally appropriate” communication programs are necessary to “incorporate a process that is inclusive and ensures accessibility to all, including those with disabilities, persons who are deaf or blind and those with limited English proficiency.”

⁷⁵ See generally *id.* at 13 (“[A successful disaster recovery] rebuilds by integrating the functional needs of all residents and reducing its vulnerability to all hazards facing it”); see also *id.* at 15 (“Public information is accessible to keep everyone informed throughout the recovery process. This includes providing appropriate aids and services, such as captioning, large print, Braille, interpretation and translated materials, to ensure effective communication with individuals with disabilities and to facilitate access to information for individuals with limited English proficiency”); see also *id.* at 64 (identifying as a key principle of pre-disaster recovery planning the need to “ensure community participation of historically underserved populations including diverse racial and ethnic communities, individuals with disabilities and others with access and functional needs, children, seniors, and individuals with limited English proficiency”).

⁷⁶ Federal Emergency Management Agency, National Disaster Recovery Framework, Emergency Support Function Annexes: Introduction (Jan. 2008) at i [hereinafter ESF Annexes Introduction].

support to States and Federal-to-Federal support.”⁷⁷ ESFs and other available resources are assigned to emergency preparedness and response actors according to the actors’ capabilities, taskings and requirements in order to improve their response to the incident.⁷⁸ Fifteen ESFs run the gambit of all of the necessary components to an effective disaster response and include specific tasks within those groupings to describe how actors within that grouping are to carry out their functions after a disaster.⁷⁹ When analyzing how the ESFs relate to necessary poverty considerations in the advance planning for disasters, three ESFs are particularly significant: Transportation, Communications, and Public Safety and Security.

ESF #1 concerning Transportation addresses transportation issues both before and after a disaster, ranging from ensuring transportation safety and movement restrictions to restoration and recovery of transportation infrastructure.⁸⁰ Transportation is often a debilitating factor in personal disaster preparedness for individuals living in poverty, many of whom lack independent means of transportation and live in communities where few, if any, of their neighbors have their own personal transportation that they could share with other members of the community in the case of a disaster. Economically disadvantaged individuals do not have the financial resources to arrange for alternative transportation, such as renting cars or purchasing airplane tickets to drive or fly to safety. In order to evacuate an endangered city at all, these vulnerable populations must have their transportation arranged for them in the form of a public

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.* at i-ii. The fifteen ESFs are Transportation; Communications; Public Works and Engineering; Firefighting; Emergency Management; Mass Care, Emergency Assistance, Housing, and Human Services; Logistics Management and Resource Support; Public Health and Medical Services; Search and Rescue; Oil and Hazardous Materials Response; Agriculture and Natural Resources; Energy; Public Safety and Security; Long-Term Community Recovery; and External Affairs.

⁸⁰ *Id.* at i.

provision of transportation to take the poor, the elderly and the disabled out of the threatened area.

In a federal response, the Federal Department of Transportation assumes the ESF Coordinator/Primary Agency role, with 13 other federal agencies playing a supporting role.⁸¹ While the Department of Transportation is well placed to assist state and local governments in addressing the logistical concerns of evacuation, such as evacuation safety and contraflow designations, it does not necessarily possess the necessary demographic awareness and capabilities to tailor its transportation plans in a disaster preparation situation to the needs of vulnerable populations in the affected area.

ESF #2 concerning Communications also comes into play when considering how disaster preparation considers the needs of vulnerable populations. In a disaster, the federal Department of Homeland Security National Communications System assumes the ESF Coordinator/Primary Agency role and FEMA plays the role of Primary Agency, with seven other agencies supporting the coordinating and primary agencies.⁸² The National Communications System expresses the mission of assisting various federal actors in “the coordination of the planning for and provision of national security and emergency preparedness communications for the Federal government under all circumstances, including crisis or emergency, attack and recovery and reconstitution.”⁸³ Given this mission, the NCS is certainly at the forefront of domestic disaster preparedness in the event of a natural disaster and could most effectively coordinate federal, state and local efforts to communicate emergency information to affected populations. Whether the NCS is well situated

⁸¹ *Id.* at vi-vii.

⁸² *Id.* at vi-vii.

⁸³ Department of Homeland Security National Communications System, “Welcome to the National Communications System: Our Mission,” (Oct. 16, 2012), *available at* <http://www.ncs.gov> [hereinafter NCS Mission].

to specifically address the communication needs of vulnerable populations in an emergency, however, is unclear.

Communication to the general public in preparation for a disaster can be determinative in the number of lives saved and amount of damage averted; information is power when preparing for a disaster. Vulnerable populations suffer from particular disadvantages in the area of communication. Although disaster responders have demonstrated growth and ingenuity in their attempted means of communicating emergency information in the years between Hurricane Katrina, the Joplin tornadoes and Hurricane Sandy, little information is available about how federal, state and local disaster preparers have communicated that information to vulnerable populations specifically. Press conferences, radio transmissions, blogs, Facebook posts or tweets may rarely reach people living in poverty who do not have access to televisions, radios, smartphones or the Internet.

Finally, ESF #13 concerning Public Safety and Security plays an important role in protecting vulnerable populations during disaster preparation. Roles and responsibilities under this ESF include facility and resource security; security planning; public safety; and support to access, traffic and crowd control.⁸⁴ In an emergency situation, the Department of Justice becomes the ESF Coordinator/Primary Agency, with 14 other federal agencies acting as supporting agencies.⁸⁵

During an emergency, the security of affected populations is of utmost importance. The possibility of an impending disaster can promote fear and desperation among affected populations, and this desperation can result in a breakdown of public safety. The Department of Justice (DOJ) possesses the necessary capabilities and resources to both prevent this breakdown and remedy the social situation after a breakdown occurs. However, the DOJ and its law enforcement personnel may lack sensitivity to

⁸⁴ ESF Annexes Introduction, *supra* note 75, at ii.

⁸⁵ *Id.* at vi-vii.

the reasons why vulnerable populations suffer security breakdowns before a disaster: desperation and confusion. In the absence of methods of communication to receive emergency messages and means of transportation to evacuate a threatened area, vulnerable populations can be prone to confusion bordering on panic about the situation, unaware of what is going on and what to do about it. A strict DOJ law enforcement reaction to the fraying fabrics of social order in vulnerable populations may not quell this confusion.

The ESRs of the NDRF provide valuable insight into the coordination, roles and responsibilities of the many federal actors that participate in disaster preparation and response. However, despite the potential efficiency of a disaster preparation organized under the ESRs, a preparedness effort that operates within the limits of the ESRs as outlined in their Annex to the NDRF would lack some important considerations for tailoring that preparation to the needs of vulnerable populations. In particular, the ESRs of Transportation, Communication and Public Safety and Security must specifically include some additional considerations to ensure that vulnerable populations do not fall victim to the oncoming natural disaster.

IV. INCORPORATING POVERTY CONSCIOUSNESS INTO NATURAL DISASTER PREPAREDNESS

A. Recommendations for Improving Poverty Awareness in the National Disaster Recovery Framework and Federal, State, and Local Emergency Planning

The NDRF includes extensive language requiring that the needs of vulnerable populations be considered when federal agencies assist state, local and tribal governments in the event of a disaster. It indicates that vulnerable populations should be actively involved in community planning in advance of a disaster; this notion is reinforced by FEMA's Whole Community approach. However, the NDRF's language concerning the needs

of vulnerable populations is aspirational rather than instructional, and while the ESFs include more specific guidance on the roles of federal agencies during disasters, they still lack achievable plans to meet the needs of vulnerable populations. The NDRF and other federal emergency management documents must include more explicit provisions outlining how federal agencies that assist state and local governments in disasters can meet the needs of vulnerable populations.

Certain federal and state laws mandate that the needs of these communities be considered, lest those actors risk a lawsuit on behalf of members of vulnerable populations who suffered disproportionately during a disaster. For example, the Americans with Disabilities Act and the Rehabilitation Act prohibit disability-based discrimination, and disabled individuals who disproportionately suffer during disasters due to the government's failure to devise an emergency plan that meets their needs may have a cause of action under these statutes.⁸⁶ Furthermore, Title VI of the Civil Rights Act of 1964 broadly prohibits discrimination on the basis of race, color, or national origin, including discrimination that results not only from intention but also, to some extent, from actions with a disparate impact on protected groups.⁸⁷ Finally, federal emergency statutes, orders, and guidance include provisions intended to protect vulnerable populations, and the NDRF, as the strategic and logistical arms of the federal emergency statutes, must include specific plans for protecting those populations in order to ensure that it remains in compliance with their statutory obligations.⁸⁸ Some states

⁸⁶ 42 U.S.C. §§ 12101-213 (2000); 29 U.S.C. § 794 (2006); *see also* Hoffman, *supra* note 2, at 1522-1526.

⁸⁷ 42 U.S.C. § 2000d (2000); *see, e.g.* 45 C.F.R. § 80.3(b)(2) (2008) (stating that recipients may not use "criteria or methods of administration which have the effect of subjecting individuals to discrimination"); *see also* Hoffman, *supra* note 2, at 1526-27.

⁸⁸ *See, e.g.*, Pandemic and All-Hazards Preparedness Act of 2006, Pub. L. No. 109-417, 120 Stat. 2831 (including at 42 U.S.C. § 300hh-16 a provision that requires the provision of special services to "at-risk individuals"); Robert T. Stafford Disaster Relief and Emergency Assistance Act 42 U.S.C. §§ 5121-

include similar antidiscrimination and special assistance provisions.⁸⁹

Nevertheless, despite the vast expanse of federal and state constitutional provisions, statutes and emergency plans, a comprehensive protection scheme for vulnerable populations still does not exist. The federal and state provisions represent a patchwork approach to addressing the needs of vulnerable populations, and given the extent of disproportionate suffering that vulnerable populations can experience during a disaster, a more all-encompassing approach is needed. Multiple steps are necessary for ensuring the protection of vulnerable populations, including enhanced accountability and more detailed planning guidance from the federal government.

First, it is important to note that existing laws do not consistently designate officials who will be responsible for preparing emergency plans for vulnerable populations and who can be held publicly accountable for failure to protect vulnerable popu-

5207 (2000) (establishing a broad nondiscrimination mandate to protect vulnerable populations); Post-Katrina Emergency Management Reform Act of 2006, 6 U.S.C. § 321b(a) (2006) (creating the position of Disability Coordinator within FEMA to assist in disaster planning for individuals with disabilities); Exec. Order No. 13,347, 69 Fed. Reg. 44,573 (July 22, 2004), *available at* http://edocket.access.gpo.gov/cfr_2005/janqtr/pdf/3CFR13347.pdf (outlining President Bush's "Individuals with Disabilities in Emergency Preparedness" order, which promotes consideration of the safety and security of disabled individuals during disasters); U.S. Dep't. of Justice, *An ADA Guide for Local Governments: Making Community Emergency Preparedness and Response Programs Accessible to People with Disabilities*, *available at* <http://www.usdoj.gov/crt/ada/emergencyprepguide.htm> (July 2004) (urging government entities to include individuals with disabilities in planning efforts and suggesting the establishment of a voluntary and confidential registry of people with disabilities so local disaster responders can provide assistance to those in need). *See also* NDRF, *supra* note 67, at 71-76 for a discussion of the statutory and executive order obligations involved in applying the NDRF.

⁸⁹ Health Resources and Servs. Admin., Dep't. of Health & Human Servs., *Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP)—Legal and Regulatory Issues 24* (2006), *available at* [ftp://ftp/hrsa.gov/bioterror/May_06\)Legal\)Report.pdf](ftp://ftp/hrsa.gov/bioterror/May_06)Legal)Report.pdf). For a list of state laws, *see id.* at 79-89 app. B; *see also* Hoffman, *supra* note 2, at 1535-1538.

lations.⁹⁰ Federal and state emergency statutes, the NDRF and the ESFs must include specific designation of officials with specific responsibility for the planning and implementation of special programs and considerations for vulnerable populations in the case of national disasters. Federal laws must be amended to require the appointment of directors of vulnerable populations who ensure that the NDRF and the ESFs include more specific language concerning how vulnerable populations are to be protected and engage in oversight of state emergency planning to guarantee that states and localities are accounting for the needs of these populations in their own emergency plans. State emergency statutes must mirror these federal amendments to require the appointment of state-level officials who would provide for the needs of vulnerable populations in emergency plans. Both federal and state laws that require the appointment of an official to oversee the needs of vulnerable populations must also include accountability measures such as public reprimands and punishments for officials who shirk their duties.

Second, the NDRF, the ESFs, and state and local emergency plans must include more specific and detailed planning guidance to ensure that plans to protect the needs of vulnerable populations are clear, unequivocal and beyond obfuscation. As described *infra*, the NDRF serves more as a guideline than an actual rule concerning how federal agencies should assist state and local governments in emergencies. However, this guidance's general recommendations that state and local emergency plans should address the needs of vulnerable populations are insufficient; more specific language in the NDRF and more stringent rules in federal statutes are needed. In particular, more specific and mandatory rules must be devised to address the primary barriers to the safety of vulnerable populations during emergencies, including access to transportation and modes of communication.

⁹⁰ Hoffman, *supra* note 2, at 1539.

The NDRF includes as a key principle of pre-disaster recovery planning the need to “ensure community participation of historically underserved populations.”⁹¹ In order to guarantee that this principle is met in each and every state, the federal government should amend the NDRF to include an additional chapter that outlines a list of required components for all state and local emergency plans. States would be allowed to devise the specific provisions within their emergency plans, but all of their plans must meet certain enumerated federal requirements. FEMA would then be given the ability to conduct oversight of these state and local plans to ensure that the plans meet the requirements and that, in execution, those plans actually do protect vulnerable populations.

For example, state and local plans should require that a certain percentage of disaster funding be allocated to programs that specifically serve vulnerable populations; the UN Under-Secretary General for Humanitarian Affairs, Jan Egeland, suggested 10% of the total disaster budget as the guideline, and this could be a starting point.⁹² In addition, all state emergency response plans should be required to contain explicit anti-discrimination mandates following the Stafford Act’s precedent.⁹³ Furthermore, states should be required to create databases and voluntary registries to store information about individuals in vulnerable populations who are likely to be isolated during an emergency due to lack of transportation and modes of communication.⁹⁴ This database would include individuals living in low-income neighborhoods, homeless individuals, individuals with disabilities and individuals with limited English proficiency. Such a registry would allow emergency responders to, first, know how many individuals may need their assistance and where to find those individuals and, second, locate those people

⁹¹ NDRF, *supra* note 67, at 64.

⁹² De Ville de Goyet and Griekspoor, *supra* note 6, at 92.

⁹³ Hoffman, *supra* note 2, at 1544.

⁹⁴ *Id.*

with special needs who require additional assistance for purposes of evacuation or delivery of information and supplies.⁹⁵ Such information must, of course, remain confidential and accessible only to emergency responders in the event of an emergency. The purpose of the registry must be made explicitly clear to the individuals who are asked to share information; in particular, trust must be established with immigrant populations to assure those populations that the information they share will not be used for deportation purposes.

The amendment of existing federal and state emergency statutes and the adaptation of the NDRF to serve as a workable, comprehensive federal disaster response plan can help ensure that federal, state and local emergency responders include in their disaster plans special provisions to meet the needs of vulnerable populations.⁹⁶ Furthermore, adhering to the inclusiveness provisions of the NDRF and FEMA's Whole Community approach in good faith would ensure that vulnerable populations have the opportunity to share their concerns and limitations with emergency planners and participate in the development of emergency plans.⁹⁷ However, meeting the needs of vulnerable populations should not be contained solely to a disaster. Poverty reduction must become a disaster preparedness strategy in and of itself.

B. Poverty Reduction as a Disaster Preparedness Strategy

The needs of vulnerable populations extend beyond the disaster setting, and what occurs in or affects those communities outside of an emergency situation drastically affects how those communities can respond to disasters. Therefore, rather than considering the needs of these communities solely during the immediate planning stages before a known disaster strikes, gov-

⁹⁵ See generally *id.* at 1544.

⁹⁶ See Redlener, Abramson, and Garfield, *supra* note 28, at 787-788.

⁹⁷ See NDRF, *supra* note 67, at 64.

ernments must focus on reducing poverty at all times so poverty concerns are not as prevalent during a disaster. As FEMA stated in its Lessons Learned Summary after Hurricane Katrina, “national preparedness involves a continuous cycle of activity to develop the elements. . . necessary to maximize the capability to” respond to a disaster “in order to minimize the impact on lives.”⁹⁸

A starting point for reducing poverty in times of non-emergency, to better meet the needs of vulnerable populations during an emergency, is the establishment of community/government partnerships and the building of social networks. The NDRF recommends the development of pre-disaster partnerships that ensure engagement of all potential resources and issues, as well as the encouragement of full engagement of the public and recovery stakeholders.⁹⁹ More governmental outreach to vulnerable populations is necessary to develop such partnerships; through open interaction and dialogue with vulnerable populations, governments can gain a greater understanding of those populations’ needs.

Some of the needs of vulnerable populations must be addressed before a disaster is imminent because they cannot be fixed after a disaster strikes. For example, housing in low-income neighborhoods tends to suffer extensive damage during disasters due to structural inefficiencies and poor maintenance. State governments should take initiative to improve low-income housing and bring them up to safety standards while maintaining those neighborhoods as areas for low-income individuals. The U.S. Department of Housing and Urban Development’s (HUD) HOPE VI Program, formed as a result of the recommendations of the National Commission on Severely Distressed Public Housing, is tasked with improving three key areas of public housing: physical improvements, management improvements,

⁹⁸ Katrina Lessons Learned, *supra* note 22, at 66.

⁹⁹ NDRF, *supra* note 67, at 65.

and social and community services to address resident needs.¹⁰⁰ As the federal department tasked with revitalizing and transforming public housing programs and specifically addressing the residential needs of vulnerable populations, HUD could be a valuable resource to state governments as they strive to improve low-income housing and their safety standards.¹⁰¹ Such an initiative would ensure that low-income individuals would have access to housing that is both affordable and structurally sound in the case of a natural disaster.¹⁰²

Furthermore, transportation concerns of vulnerable populations are difficult to address when a disaster is looming and all members of a community, vulnerable or not, are vying for means of evacuation. Public transportation that does not access vulnerable populations in times of non-emergency will not magically access them during an emergency. Therefore, governments must work to extend public transportation to vulnerable populations; creative solutions such as a publicly accessible car rental service exclusively for low-income people could assist such individuals not only during evacuation but also during non-emergency situations such as traveling to job interviews or medical appointments.

In addition, the communication concerns of vulnerable populations can be addressed as a poverty reduction strategy. While communicating with vulnerable populations during a disaster may be difficult due to their challenges accessing to means of communication such as televisions, radios and the Internet, educating vulnerable populations about emergency plans and evacuation strategies through community outreach programs can

¹⁰⁰ HOPE VI, U.S. Department of Housing and Urban Development, *available at* http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/hope6 (last visited on October 15, 2013).

¹⁰¹ About HOPE VI, U.S. Department of Housing and Urban Development, *available at* http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/hope6/about (last visited on October 15, 2013).

¹⁰² See Fothergill and Peek, *supra* note 5, at 104.

instruct vulnerable populations about what they can expect during a disaster and help them plan in advance. Simple knowledge of how a state or city plans to handle a disaster can reduce panic, fear and confusion among vulnerable populations that may not otherwise have access to information about the city's activities during an emergency.¹⁰³

A final poverty reduction strategy to prepare for an emergency is the development of social networks within the vulnerable communities themselves. An individual's first resource during a disaster is himself, and his second is his community. After emergency planners engage in educational programs to teach vulnerable individuals about disaster preparedness, they must promote the formation of community groups and neighborhood organizations. Such community organizations must then be included in emergency planning as important stakeholders who represent and lobby for the needs of vulnerable populations.¹⁰⁴ As Aguirre argues: "The activation of civil society through purposeful networks is part of a needed rethinking about how to bring about more effective ways to minimize the vulnerability and enhance the resilience of social organizations to disasters."¹⁰⁵

As Hurricane Katrina taught, cities cannot become highly concentrated areas of poverty if they hope to survive a disaster without losing a great percentage of its vulnerable populations.¹⁰⁶ Pre-existing poverty concerns will exacerbate the levels of destruction in disasters across the nation, and only through classification of these poverty concerns as a threat to effective disaster preparedness can such considerations be adequately incorporated into emergency plans.¹⁰⁷ Many poverty reduction

¹⁰³ See generally *id.* at 104-105.

¹⁰⁴ See Aguirre, *supra* note 6, at 48-51, for the types of social networks that participate in the "resilience and mitigation project" of preparing for a disaster.

¹⁰⁵ *Id.* at 50.

¹⁰⁶ See Waysdorf, *supra* note 1, at 23.

¹⁰⁷ *Id.* at 31.

strategies can be addressed in advance of a disaster, but emergency planners must dedicate themselves to connecting with vulnerable populations to determine their needs and fold them into disaster planning as full stakeholders.

V. CONCLUSION

During natural disasters, vulnerable populations remain particularly at risk. Such populations lack access to transportation to evacuate endangered areas and cannot reach common modes of communication to hear emergency messages, weather warnings and evacuation orders. Vulnerable populations do not have the financial resources to adequately prepare or stockpile necessary resources for a disaster. The lessons of Hurricane Katrina, the Joplin tornado and Hurricane Sandy reveal that federal and state disaster plans and strategies have evolved through experience to create innovative ways of incorporating more people and communities into the disaster preparation process, but these plans and strategies, however, are far from fully protective of vulnerable populations.

The National Disaster Response Framework and its Emergency Support Functions include clear language to indicate that vulnerable populations must be included and their needs met during disaster planning and response. However, they lack specific instruction for meeting the needs of vulnerable populations. The NDRF should be amended to include more specific provisions for protecting vulnerable populations and allow FEMA to assume an oversight role to ensure that those kinds of provisions are included in all state and local disaster plans.

A patchwork of federal, state and local constitutional provisions, statutes, executive orders and agency guidelines indicate that governments at all levels recognize the importance of specifically addressing the needs of vulnerable populations during a disaster. But this patchwork becomes complicated. A more comprehensive plan is needed. Such a plan may include in-

creased accountability for meeting the needs of vulnerable populations and more specific instruction for emergency planners.

However, perhaps the greatest method for ensuring that the needs of vulnerable communities are met during a disaster is the creation of a poverty reduction strategy that meets these needs outside of the context of an emergency. Through reaching out to vulnerable communities, emergency planners at the federal, state or local level can incorporate individuals in those communities in the planning process as full stakeholders. The major barriers to disaster resiliency can be remedied before, and not during, a disaster. Members of vulnerable communities can become less vulnerable through active participation in a process where emergency planners listen to their concerns, create programs to meet their needs and empower them to resist the adversities of disaster with the assistance of their own communities.