



Community and Economic Development in North Carolina and Beyond Blog: Vulnerability and Emergency Preparedness in Low-Income Communities

By CED Guest Author

Article: <https://ced.sog.unc.edu/vulnerability-and-emergency-preparedness-in-low-income-communities/>

This entry was posted on October 18, 2011 and is filed under Built Assets & Housing, Community Development, Human & Cultural Assets, Social & Civic Assets



John Cooper is a program director at MDC, a 44-year-old nonprofit based in Durham, N.C., that develops initiatives to improve educational and economic opportunity, and a research fellow at UNC-CH's Institute for the Environment.

North Carolina has a long history of natural disasters, but 2011 may go down as one of the most trying years yet for North Carolinians. The April tornadoes that swept through the Triangle region and the state's coastal counties left in their wake two dozen fatalities across the state. In August, hurricane Irene made landfall in North Carolina accompanied by high winds and followed by flooding, leading to widespread property damage and power outages for more than half a million people.

In the aftermath of disasters this year, more than 10,000 North Carolina residents have received household and individual disaster assistance, totaling more than \$30 million. In all, more than \$50 million in state and federal disaster assistance has been allocated to help aid recovery in North Carolina. These numbers, however, fail to convey the impact disasters have on rural communities and disadvantaged groups in both rural and urban areas in particular. Research shows that the most vulnerable residents in a community (e.g., low-wealth individuals, children, the elderly, people with disabilities, and non-English speaking individuals), often suffer disproportionately during disasters, as they tend to be concentrated in higher-risk areas and in housing that is less able to protect them from extreme forces. Additionally, they do not have access to the resources necessary to sufficiently prepare for, survive, or recover from a disaster. The impact of disasters on rural Bertie County this year is an example.

Bertie County experienced eight floods between 1999 and 2010 and has averaged one tornado roughly every three years since 1952. In the last two years alone, Bertie has received two federal disaster declarations and a federal emergency declaration. Of the two dozen fatalities in North Carolina related to the April 2011 tornadoes, eleven (11) were in rural Bertie County. This is not surprising, as residents in Bertie County are inherently more vulnerable to disasters. The poverty rate in Bertie County (24.3 percent) is above national (14.3 percent) and state (16.2 percent) averages, and the median household income for Bertie County is \$29,693, compared to \$43,754 for North Carolina and \$50,221 nationally. Bertie also has higher levels of childhood poverty (38.4 percent), people with disabilities (29.4 percent), and a significantly more folks over 65 (17.2 percent) than at state and national levels. Likewise, the average age of the victims from the April tornadoes was more than 65 years old—none were younger than 50, and at least one of the victims was disabled.



Given the history of disasters in counties like Bertie across North Carolina, and the high likelihood of future disasters, it is important for local emergency managers in these places to have accurate assessments of the risks facing their communities' most vulnerable citizens to disasters, and of gaps in local disaster plans. To this end, in 2005 researchers at the UNC Center for Sustainable Community Design and MDC began a partnership with FEMA to identify the barriers preventing disadvantaged communities from being aware of and prepared for disasters. Goals of the Emergency Preparedness Demonstration (EPD) included providing local emergency managers with tools to help them obtain more contextual information about gaps in local disaster plans and for engaging vulnerable populations in the process of creating or updating disaster plans.

The project was carried out in seven areas affected by Hurricane Isabel in 2003 (Virginia, West Virginia, Delaware, Maryland, North Carolina, Pennsylvania, and the District of Columbia) and expanded in 2007 to include areas in Texas and Alabama affected by hurricanes Katrina and Rita. To facilitate the work of each community, the project team developed a set of guidance documents that communities and emergency managers anywhere can use, including a compendium of promising practices for community preparedness and a Social Vulnerability Assessment, with a step-by-step process for documenting a community's physical and social vulnerability to disasters. The team also developed a Plan Assessment to help emergency managers, urban planners, and others who work with disadvantaged populations improve local government disaster plans. Both assessment tools include detailed instructions, examples, and worksheets for compiling and organizing data collected.

For more information about the EPD and access to the EPD planning and assessment tools, visit <http://www.mdcinc.org/programs/fema.aspx>

Note on Demographic Data: The poverty and median income rates for Bertie County are from the 2009 U. S. Census Bureau, Small Area Income & Poverty Estimates. The childhood poverty rate, ages 18 and under, was taken from the 2005-2009 American Community Survey five-year estimate. The percentage of people with disabilities, 21 to 64 years, was taken from the 2000 Census and the percentage of persons above the age of 65 was taken from the 2010 Census.