

Resident of a Mobile Home Ten Times More likely to Perish in a Tornado than Resident of Conventional Home

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The tragic tornado outbreak left devastation, death and injuries across 6 states in 3 days. Once again, we are reminded of how vulnerable we are to nature's most powerful storm. The climax of the event occurred on Saturday as the storm produced 62 of the estimated 240 tornadoes of the outbreak in North Carolina leaving more than 20 dead. Major events like this one cause us to grieve and feel the anguish that comes from tragedy. But it also provides lessons that may help us prepare for future events with the hope that we can minimize the tragic impacts of tornadoes.

A final accounting of the fatalities is not ready, as of this writing, but it is a good bet that many if not most of the fatalities occurred in mobile homes. A resident of a mobile home is 10 times more likely to perish in a tornado than a resident of a permanent home. Indeed, in North Carolina, between 1996 and 2007, 87% of all tornado fatalities occurred in mobile homes. As tragic as that statistic appears, it is not the case that a mobile home has to be a death sentence when facing a tornado. Perhaps the best illustration of that fact lies in another southern state, Florida and another tragic tornado outbreak, the Ground Hog day tornadoes of February 2, 2007. Florida had recently increased the wind load provisions for mobile homes and although 21 souls perished from these tornadoes, not one was in a mobile home constructed to the newer wind load standards. One should not believe that living in a mobile home built to Florida's standards is a guarantee that you are safe. But compared to mobile homes that are not built to that standard, it is more likely that you may survive.

Another vulnerability illustrated by this outbreak was the fact that they hit North Carolina on a Saturday. Weekend tornadoes suffer 22% more fatalities than a similar tornado occurring on a weekday. Also the month and time-of-day played somewhat of a role, although neither April, nor a late afternoon tornado, are the most deadly. The time of day with the lowest casualties is early afternoon while July is the month for the lowest casualties. The most dangerous month is actually February, although not thought of as a "typical" tornado month. By far, the most dangerous time of day is overnight where fatalities are 2 ½ times higher than early afternoon. Fatalities in April are almost twice as high as fatalities in July, and fatalities from late afternoon tornadoes are about 40% higher than a similar tornado several hours earlier.

This outbreak is measuring up to be one of the worst in recent history. Tornadoes are dangerous and unpredictable events. They can make a peaceful community look like a war zone with all the heartache that accompanies any disaster. But the human condition is essentially one of resilience and resolve. North Carolina will rebuild and recover.

Source: Economic and Societal Impacts of Tornadoes, Kevin M. Simmons and Daniel Sutter, AMS Books and University of Chicago Press.