



Interdisciplinary data collection for empirical community-level recovery modelling

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Abstract

The Center of Excellence for Risk-Based Community Resilience Planning (CoE) has begun to provide analyses on damage, functionality loss, recovery, etc. at the community level for a suite of possible hazard events via the Interdependent Networked Community Resilience Modelling Environment (IN-CORE). These analyses are instrumental to leveraging state of the art science in community decision-making; however, for this work to be as actionable as possible, the outputs must be validated for a range of implementation contexts and communities. The work presented here describes a longitudinal study of a series of communities impacted to varying degrees by a tornado outbreak in December of 2021 and the way in which this longitudinal data will be used to validate models in IN-CORE. This longitudinal study is still underway as it serves to capture recovery data for three years following the event.

Keywords: Interdisciplinary disaster research; resilience modelling; natural hazards; field study; social vulnerability