

# Measuring Community Resilience to Disaster

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## ABSTRACT

Although geographic studies of disaster vulnerability and resilience have been central to the formulation of federal emergency management policy, recent community resilience research has diverged significantly from the core foci of the discipline: the importance of place, of scale, and the complexity of human-environment interactions. Three disconcerting trends in the literature can be observed. First, there has been a heavy reliance on the tools of linear systems science to characterize and measure the human dimensions of resilience - dimensions which are increasingly examined in terms of their nonlinearity, dynamism and complexity in other scientific disciplines. Second, most of the variables typically used as proxies for community resilience are not actually indicative of community-scale processes, but rather describe individual-scale behavioral and household-scale socioeconomic characteristics. Third, the current practice of aggregating resilience indicators to large, heterogeneous geographic areas in order to communicate community-level resilience can actually mask and mischaracterize the local, place-specific variability of those indicators. This thesis presents a rethinking of geography's conceptual model of population disaster resilience and the methods used to measure it at the community level. Drawing on diverse theoretical linkages on the subject from across the social and natural sciences, and on the current perspectives and information requirements of local emergency managers, a more holistic and meaningful approach to measuring community resilience is proposed.