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Disaster Recovery Planning & Management Research Project Descriptions

<u>Index</u>

Keith B and David DN., "<u>Dynamic Feedback Theory of Community Recovery from Shock Events:</u> <u>Testing the Role of Social Capital</u>".

Dynamic Feedback Theory of Community Recovery from Shock Events: Testing the Role of Social Capital David N. Ford and Bruce Keith

The purpose of this study is to develop a preliminary dynamic feedback-based theory and simulation model of community recovery that examines the importance of social capital in rebuilding after a shock event. Shock events such as hurricanes, earthquakes, and armed conflict regularly devastate communities. Following initial humanitarian response efforts, communities must plan and manage an effective and efficient recovery effort that supports development. This requires an understanding and exploitation of the dynamic interactions among the community's physical and social infrastructures, post-shock event conditions, and residents. Despite the plethora of aids for recovery strategy development processes, few aids to developing recovery strategy content exist to address issues such as how and when to allocate limited resources. Sociologists and aid organizations acknowledge the critical role of time in recovery but offer no strategic dynamic causal theories. In addition, recovery efforts typically focus on built physical infrastructure, but Aldrich (2012) and others propose an important role for social capital in recovery. The current study develops a preliminary dynamic feedback-based community recovery theory and simulation model that reflects Aldrich's hypothesis and uses it to test that hypothesis. Results suggest that both dynamic interactions and social infrastructure are important for recovery efforts. Plans to use the work to develop a tool for community assessment and recovery planning and management are described.

Keith B and David DN., "Dynamic Feedback Theory of Community Recovery from Shock Events: Testing the Role of Social Capital.

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