

# Managing Climate Change Impacts Through Social Resilience: Building an Empirical Model

RUTGERS

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# **Preliminary Model Building**

- Exploratory Analysis of two different data sets
  - AP-NORC Post-Sandy Survey (Summer 2013)
  - Eagleton Institute of Politics/Internews Post-Sandy Survey (Summer 2014)
- Visualization of the Model
- Operationalization:
  - Definition of Social Resilience
  - Index Building
  - Variables
  - Calibration of Hypotheses
- •Based on Field Research in NJ and NYC after Sandy:
  - Surveys
  - Interviews
  - Focus Groups
  - Observation/Participant Observation

### **Research Questions**

RQ1: What factors predict strong reliance on local sources of assistance after disaster?

RQ2: Which organizational factors predict community recovery within a specified period after the storm?

RQ3: What role does Information and Technology (ICT) use play in community recovery?

RQ4: Does socio-economic status impact the organizing processes of community recovery?

### Social Resilience: What is it?

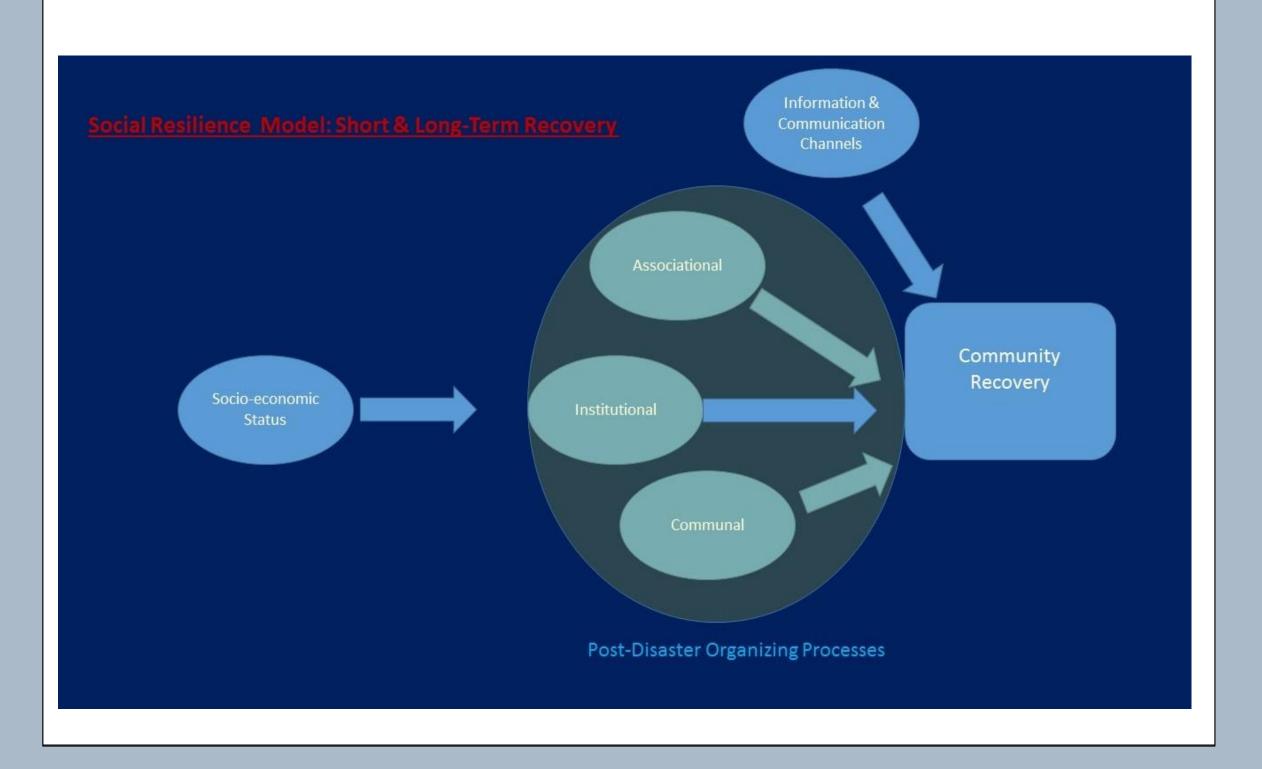
Social resilience is a collaborative process that occurs at community and organizational levels, and is reliant upon social ties, communication channels, information flows, and the attributes of a community and its citizens.

# Social Resilience Operates at Three Levels

- Social resilience relies on relational ties between the public, private, and plural sector (Doerfel & Harris 2016; Harris & Doerfel 2016).
- Social resilience requires connective logics (Bennett 2013) that link all organizations active in a disaster-struck community (Harris & Doerfel 2016).
- Three levels are necessary:
- 1) <u>Institutional:</u> Public Agencies, Nonprofits, Utility Companies
- 2) <u>Associational:</u> Private and Plural Sector Organizations
- 3) <u>Communal:</u> Individuals (friends, family), neighborhood, grassroots organizing

Information & Communication Technologies:
Platforms, Channels, Information (ICTs)
Socio-economic Status (SES)

## Social Resilience Model



## **Preliminary Hypotheses**

H1: Communal and associational activities are primary components of social resilience.

**H2:** Associational activities are the primary drivers of community recovery and adaptation.

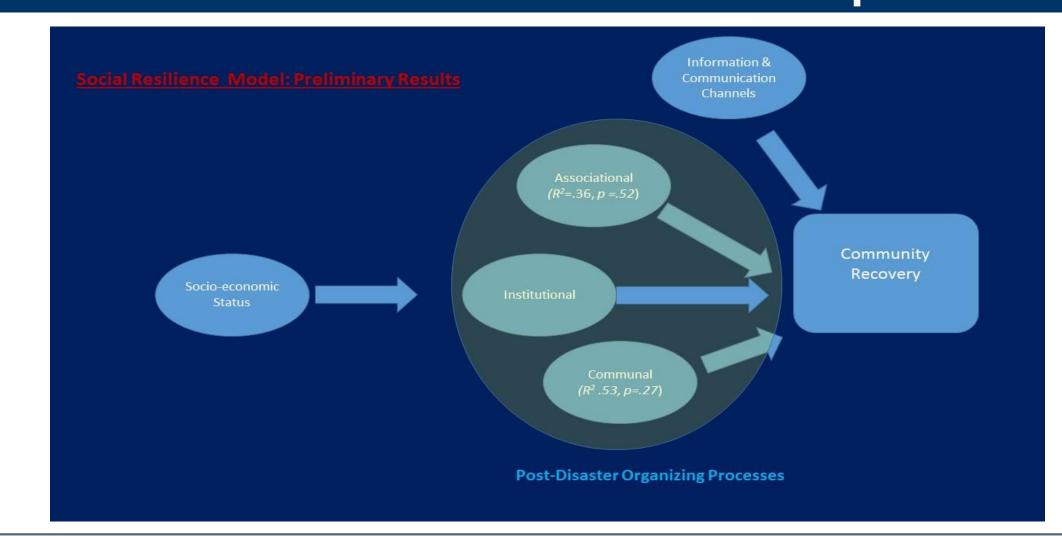
**H3:** SES negatively impacts the efficacy of local assistance activities.

**H4:** Community recovery and adaptation are dependent upon social resilience.

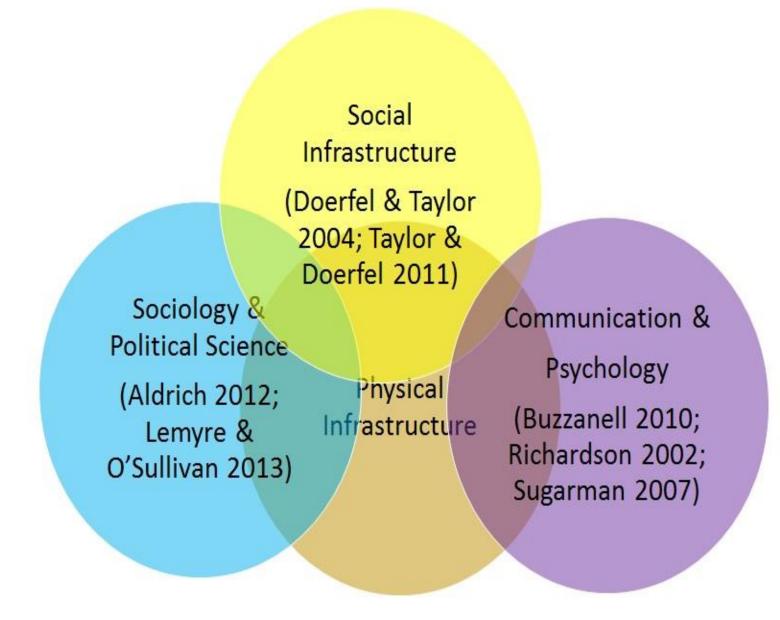
## **Summary of Preliminary Results**

- Cluster Analysis, Multiple Regression
- No Support for hypotheses H1 and H2; H3 & H4 not tested
- Possible Issues with Org-level data:
  - Clarification of Institutional-level variable is needed
  - Small org-level samples
  - Possible survey fatigue

# **Associational & Communal Impacts**



#### **Theories of Social Resilience**



#### Variables

<u>Institutional (IV)</u> = Support/assistance from government agencies and national nonprofits

<u>Associational (IV)</u> = Activities of FBOs, local busineses, local organizations & associations

**Communal (IV)** = Friends & Family, Neighborhood, sharing of resources and information

<u>ICT = (IV)</u> = Social Media, Technology, Face to Face (Doerfel & Haseki 2013; Doerfel, Chewnig & Lai 2010)

**SES (IV)** = age, income, education, race, ethnicity

Community Recovery (DV) = Extent/Level of Recovery

AP-NORC n = 2,025, EIP n = 749

## **Next Steps/Future Research**

- Revise hypotheses & test revised hypotheses
- Analyze and publish on methodological issues on collecting organizational level data after disaster
- Development of revised/modified survey and interview questions for dissertation research
- Generate additional data through qualitative network analysis
- Development of a predictive model of community recovery using social resilience factors