

# SEVENTY YEARS, SEVERAL LESSONS: WHAT DISASTERS CAN TEACH US ABOUT SOCIETY



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# OVERVIEW



- History of social science disaster research
- Lessons learned
- Illustrative examples from research
- What's next?

# THE EMERGENCE OF DISASTER RESEARCH

## ■ First Empirical Study

- Samuel Henry Prince Dissertation\*, *Catastrophe and Social Change* (1920)





# THE EMERGENCE OF DISASTER RESEARCH

- First Empirical Study
  - Prince Dissertation (1920)
- Initial Field Research Teams (1949-1954)
  - University Based\*
  - Sociologists Predominated
  - Military Funding



# THE EMERGENCE OF DISASTER RESEARCH

- The military had very practical concerns about wartime situations...
- Disasters as a “natural experiment”
- What would happen to society?
  - Panic?
  - Demoralized civilians?
  - Civil unrest?
  - Social control?



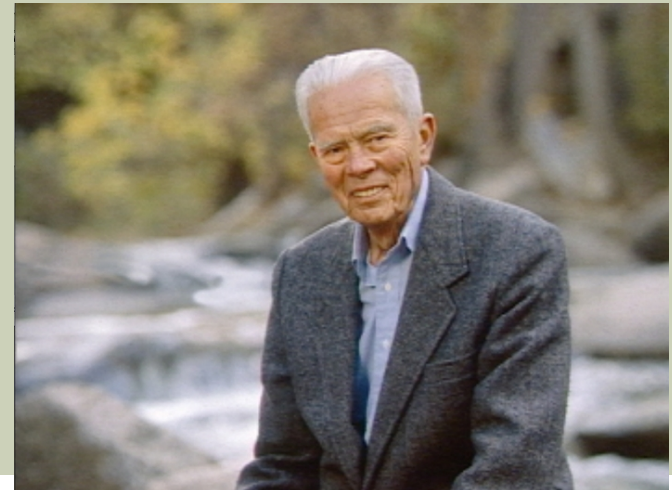
# THE EMERGENCE OF DISASTER RESEARCH

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# THE EMERGENCE OF DISASTER RESEARCH

- First Empirical Study (1920)
- Initial Field Research Teams (1949-1954)
- National Academy of Sciences Committee on Disaster Studies (1951-1962)
  - Disaster Research Center\* (1963)
- National Science Foundation – *Assessment of Research on Natural Hazards*
  - Natural Hazards Center\* (1976)



# THE EMERGENCE OF DISASTER RESEARCH

## ■ What is a disaster?

- “An event, concentrated in time and space, that causes significant disruption to society.” –Fritz, 1961
- “A disaster is a potentially traumatic event that is collectively experienced, has an acute onset, and is time-delimited; disasters may be attributed to natural, technological, or human causes.” –Norris et al., 2006



# DEFINITIONAL CONSEQUENCES

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## ■ What do we often study?

- Large-scale disasters
- Rapid-onset disasters
- Developed countries, large urban areas

# SOCIOLOGICAL LESSONS WE HAVE LEARNED



# PEOPLE DO NOT DESCEND INTO CHAOS



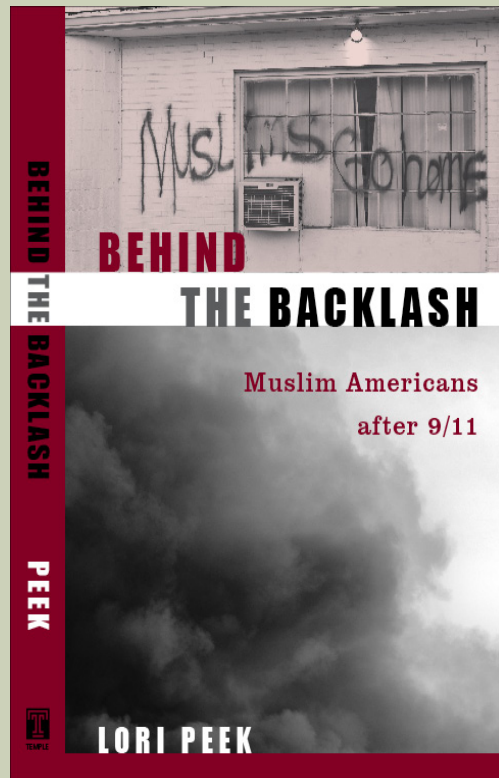


# PEOPLE DO ENGAGE IN ALTRUISTIC BEHAVIOR

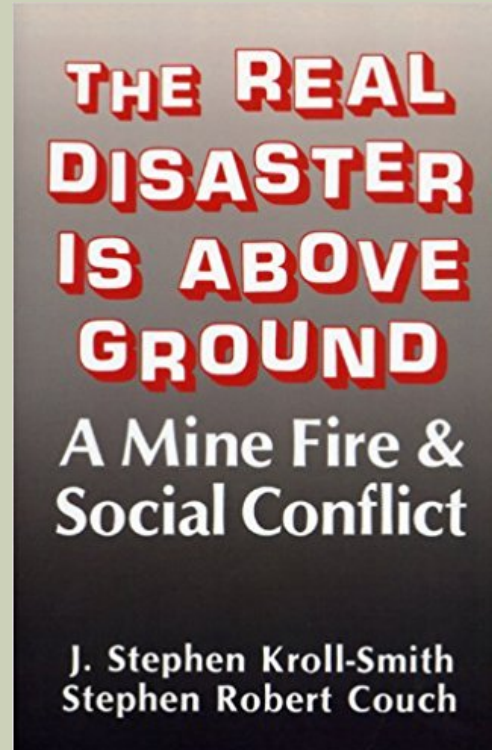




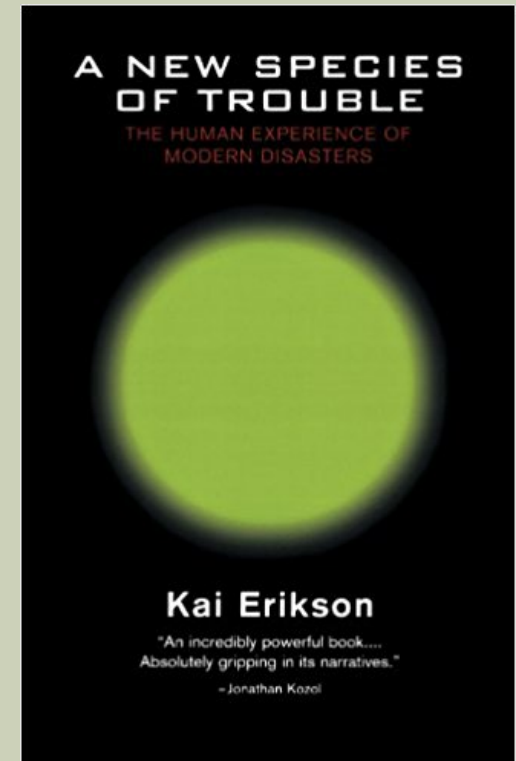
# DISASTERS MAY EXACERBATE OR OPEN UP SOCIAL FAULT LINES



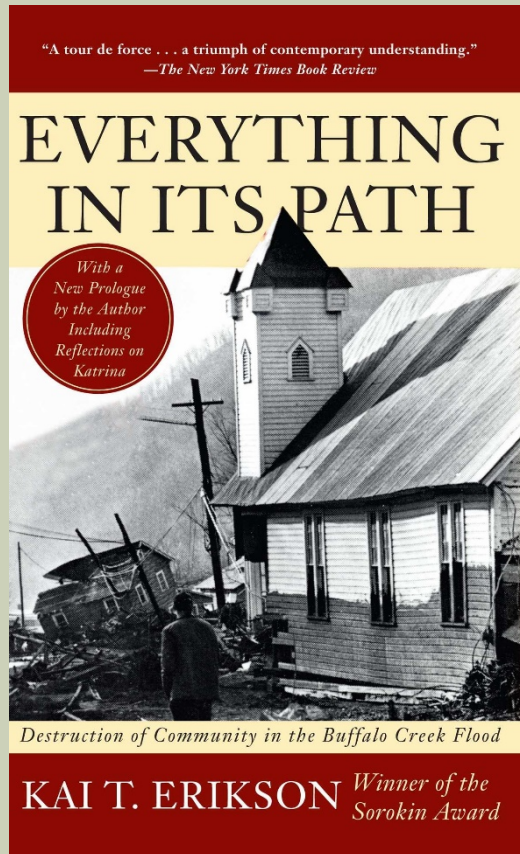
“backlash violence,  
exclusion, invalidated  
collective grief”



“corrosive community”



# LOSS OF COMMUNALITY AS DAMAGING AS LOSS OF *PHYSICAL* COMMUNITY





# SPONTANEOUS CONVERGENCE WILL OCCUR AFTER A DISASTER...



# AND ORGANIZATIONS WILL ADAPT AND RESPOND

**Structures**

**Old**

**New**

**Old**

**Established**  
(fire, police)

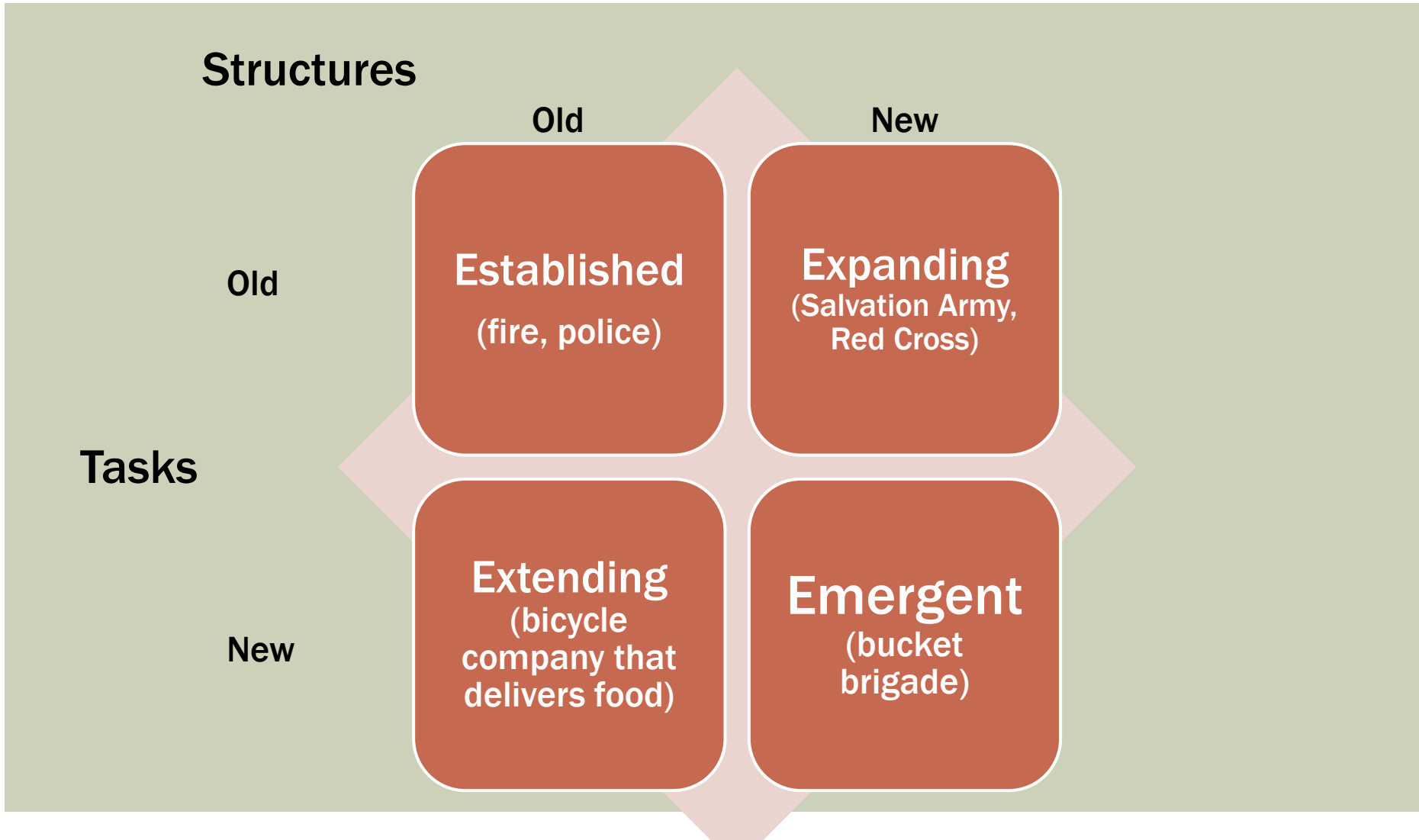
**Expanding**  
(Salvation Army,  
Red Cross)

**Tasks**

**New**

**Extending**  
(bicycle  
company that  
delivers food)

**Emergent**  
(bucket  
brigade)





# HAZARDS ARE NATURAL; DISASTERS ARE NOT



## Natural Hazard

*Knowledge of Potential Catastrophic and Chronic Physical Events*

- Past Recurrence Intervals
- Future Probability
- Speed of Onset
- Magnitude
- Duration
- Spatial Extent

***Risk  
of  
Disaster***

## Vulnerable System

*Exposure, Sensitivity and Resilience of:*

- Population
- Economy
- Land Use and Development
- Infrastructure and Critical Facilities
- Cultural Assets
- Natural Resources

*Ability, Resources and/or Willingness to:*

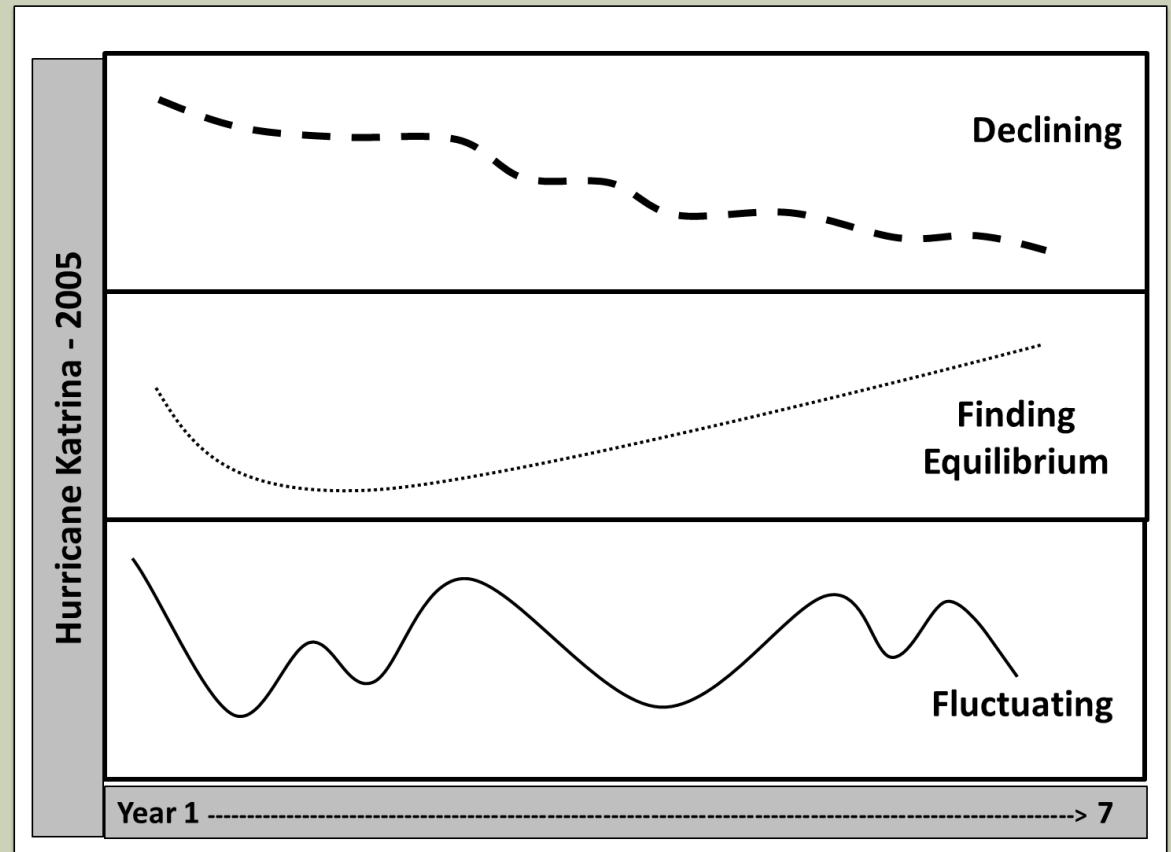
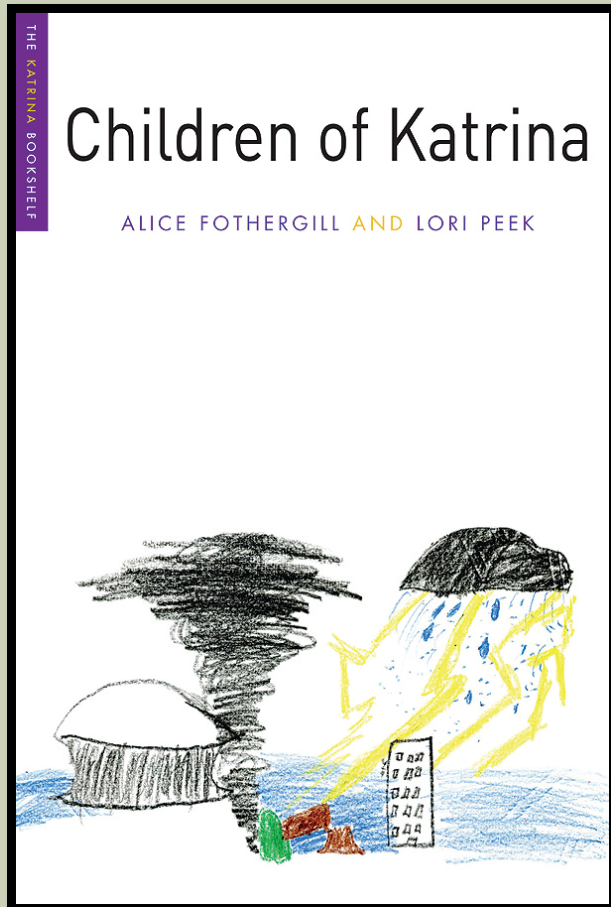
- Mitigate
- Prepare
- Respond
- Recover



# THE MOST VULNERABLE ALMOST ALWAYS SUFFER DISPROPORTIONATE LOSSES



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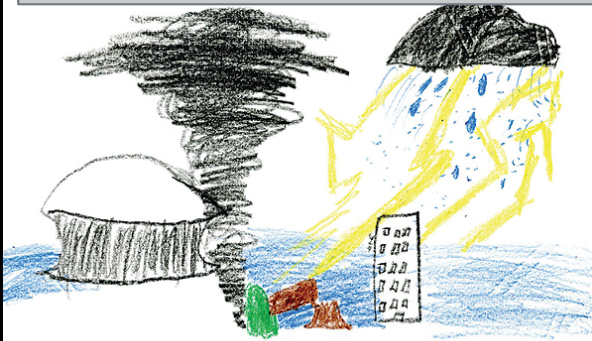
# THE MOST VULNERABLE ALMOST ALWAYS SUFFER DISPROPORTIONATE LOSSES

THE KATRINA BOOKSHELF

## Children of Katrina

ALICE FOTHERGILL AND LORI PEEK

vulnerability is rooted in our social structures and institutions, and that means that we can reduce harm and suffering



05

Declining

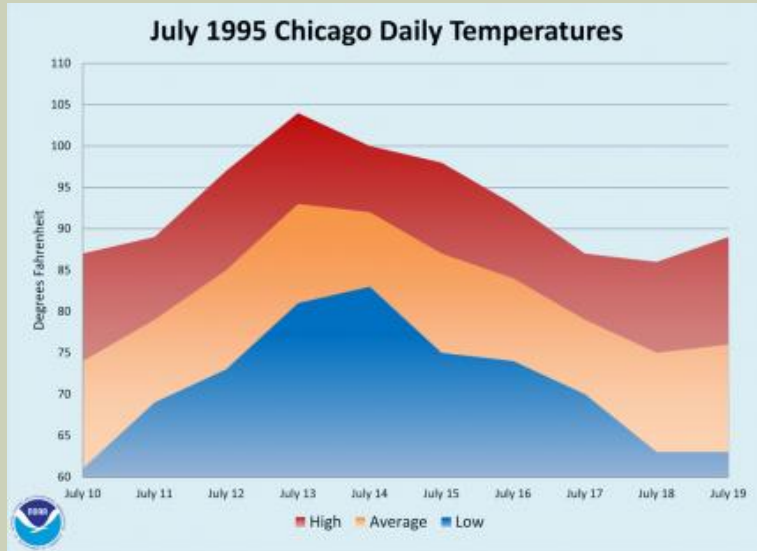
Finding  
Equilibrium

Fluctuating

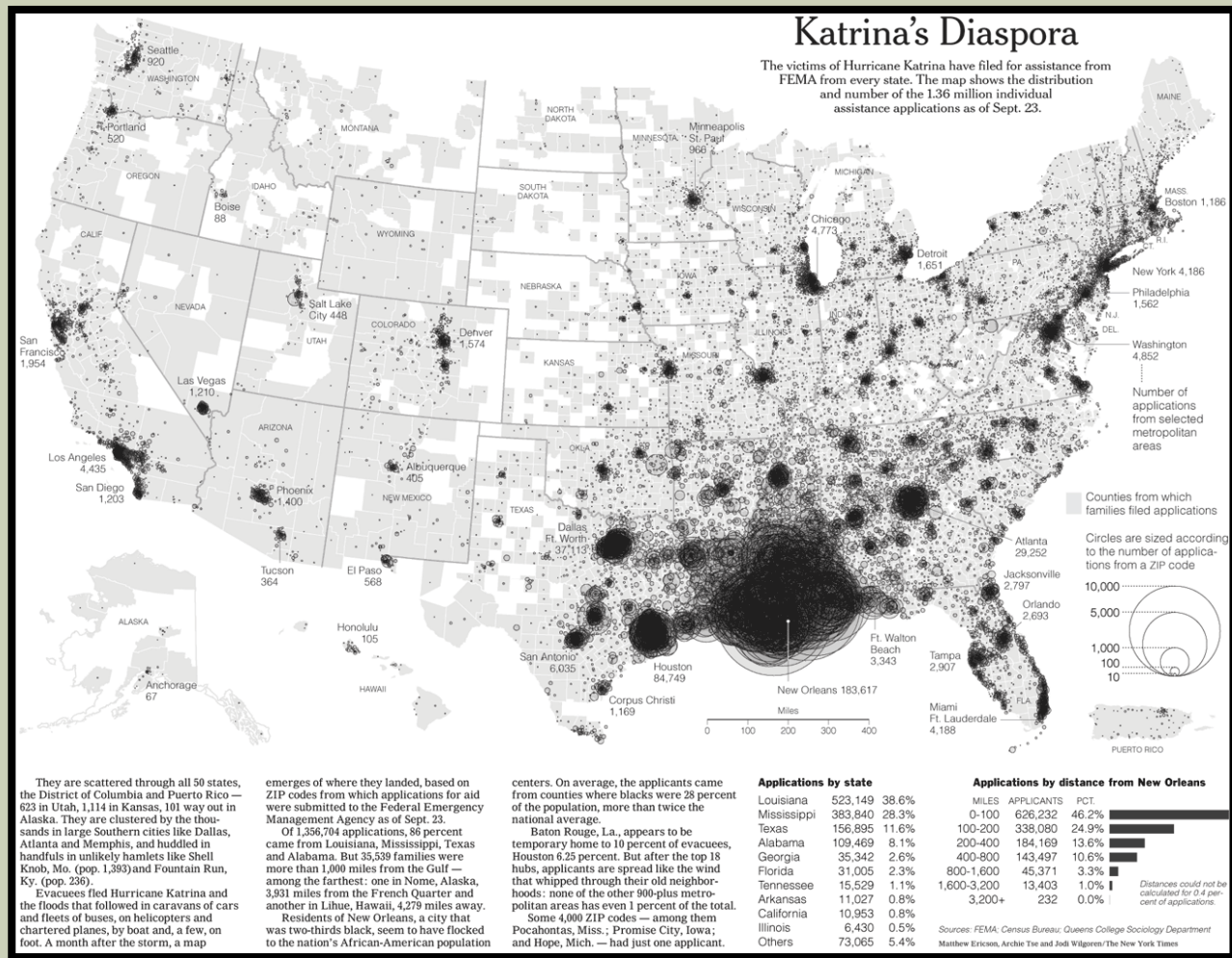
Hurricane

Year 1 -----> 7

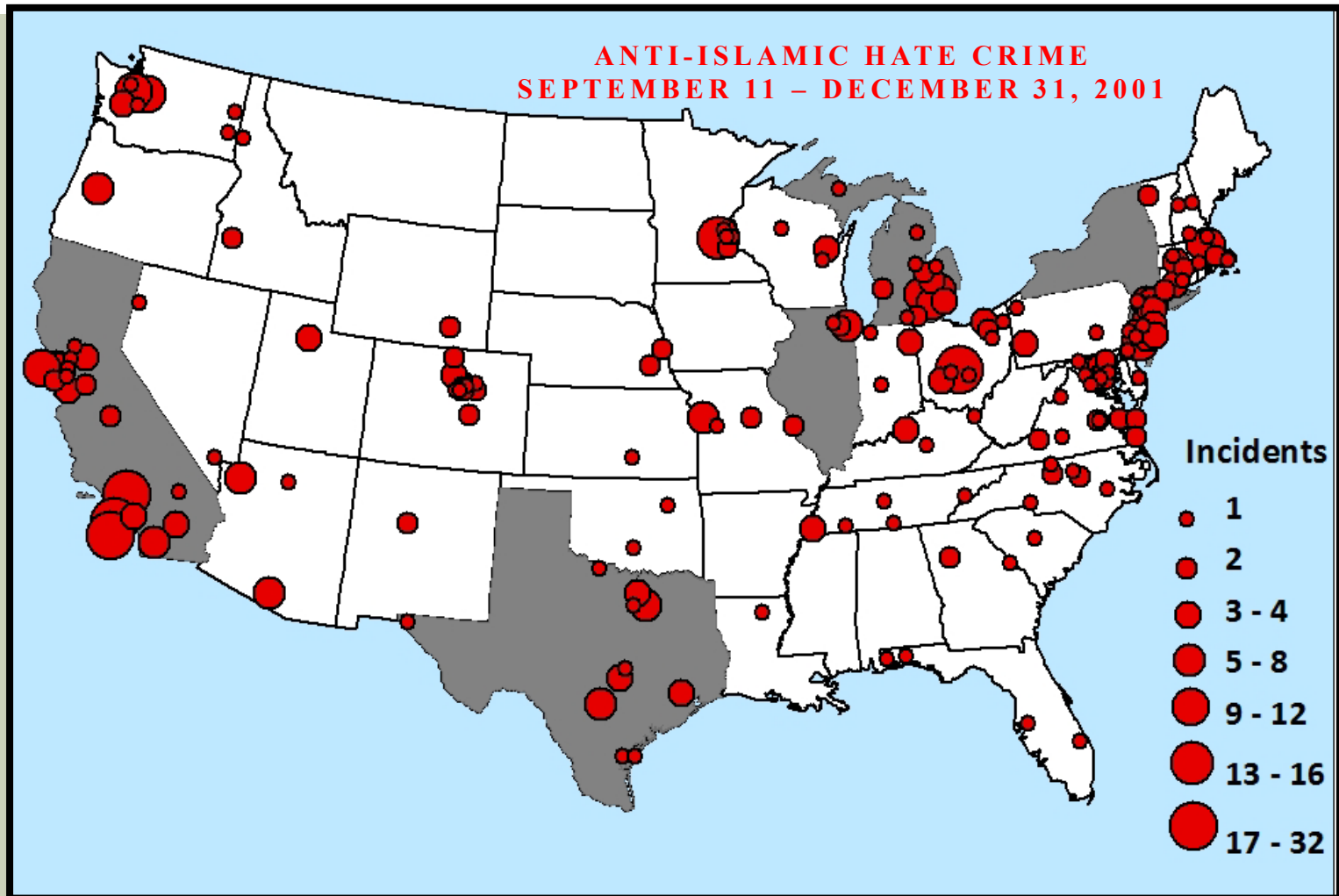
# THE TIES THAT BIND US DURING NON-DISASTER TIMES CAN SAVE US DURING DISASTERS



# THE EFFECTS OF DISASTER MAY NOT BE “CONCENTRATED IN TIME AND SPACE”



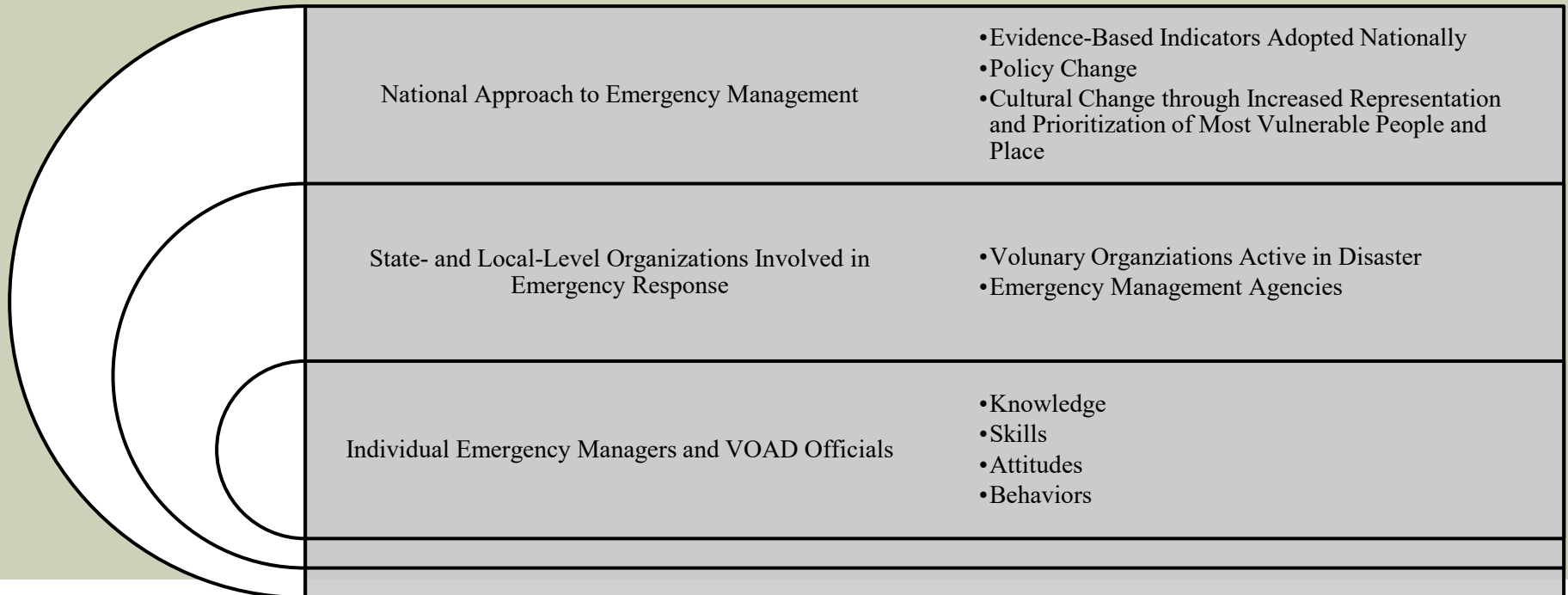
# THE EFFECTS OF DISASTER MAY NOT BE “CONCENTRATED IN TIME AND SPACE”





# WHAT'S NEXT?

- Climate Change + Population Growth + Rising Inequality + Unsustainable Development = Recipe for More Catastrophic Events
- Need for Systems Thinking, Synergistic Solutions
- Micro, Meso, and Macro Level Change





# Thank you!

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