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



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University of Colorado Boulder

OVERVIEW



First Empirical Study

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

been state that and the "In HALIFAX HERALD THE W. Inter Street Million & Sec. Chesa HALIFAX WRECKED More Than One Thousand Killed In This City, Many Thousands Are Injured And Homeless.

muny of them fatally, is the result of the over the city. The Halifax flerald emission yeatenday of French stram- is collecting information regarding the Most Barr, leated with mitro- the mining, and citizens who hav circerine and trinitrotuol. AL of Haliha north and west of the depot is a mana freins and many thousands of people ! e bongtone - "De Bebitan Bolid manger Imi, conter on from Belleri Lean, and bit with the Mart ner, which tamptlatein tein fter and wus bauftet to Pier Sa. 5 and exploited. Buildings over a great speck, bur purg more, where and hall-burnto and another press is much previat and then a wathet an over Campbell Bant. - Farm perif finterent finterer berfahlte untereicher führ Their & Response for Machillers works and the report housed on the east by the und ber Berth attact and wound The party of the lot o

MCRE than one thousand dead and THE wounded and homeless are in probably five thousand injured. The different institutions and homes victims of the disaster at their home are requested to telephone to The Reraid office. Hundreds of the hadles which were taken fame the roles recomisable and margins have here operad in Intent parts of the city. Colleges Contentioners taking foreard for research Watth Ballet L based Ground the day giving information for southangs of these whet have bud reliations and true While producely every harman in the side or depethese who are able to grow and femaletary attrice. dation are asked in antify since of the compatient. Military and same putters are housing poder a gentained by the crosses work.



First Empirical Study

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





- 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?



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- 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)



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

What is a disaster?

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

What do we often study?

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

SOCIOLOGICAL LESSONS WE HAVE LEARNED



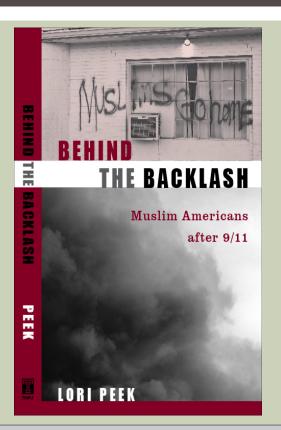
PEOPLE DO NOT DESCEND INTO CHAOS



PEOPLE <u>DO</u> ENGAGE IN ALTRUISTIC BEHAVIOR



DISASTERS MAY EXACERBATE OR OPEN UP SOCIAL FAULT LINES



"backlash violence, exclusion, invalidated collective grief"

THE REAL DISASTER IS ABOVE GROUND A Mine Fire & Social Conflict

J. Stephen Kroll-Smith Stephen Robert Couch

A NEW SPECIES OF TROUBLE

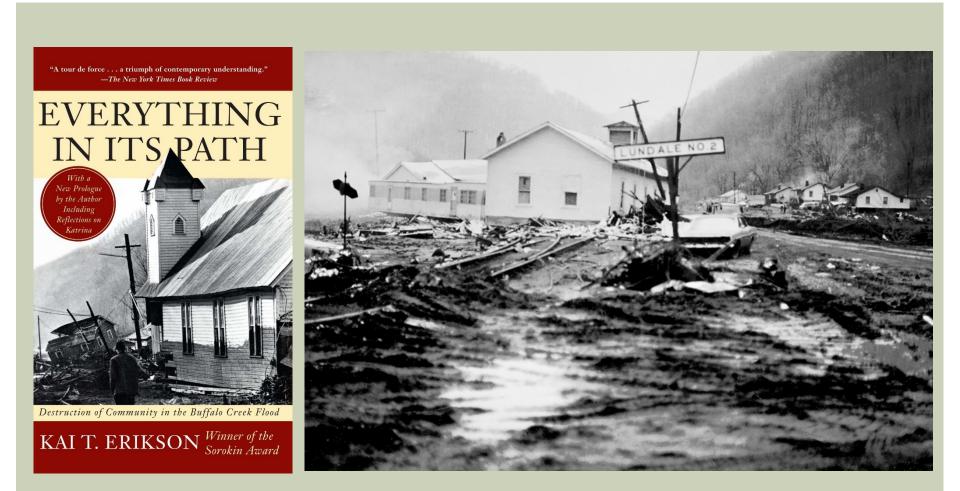
MODERN DISASTERS

Kai Erikson

"An incredibly powerful book.... Absolutely gripping in its narratives." – Jonathan Kozol

"corrosive community"

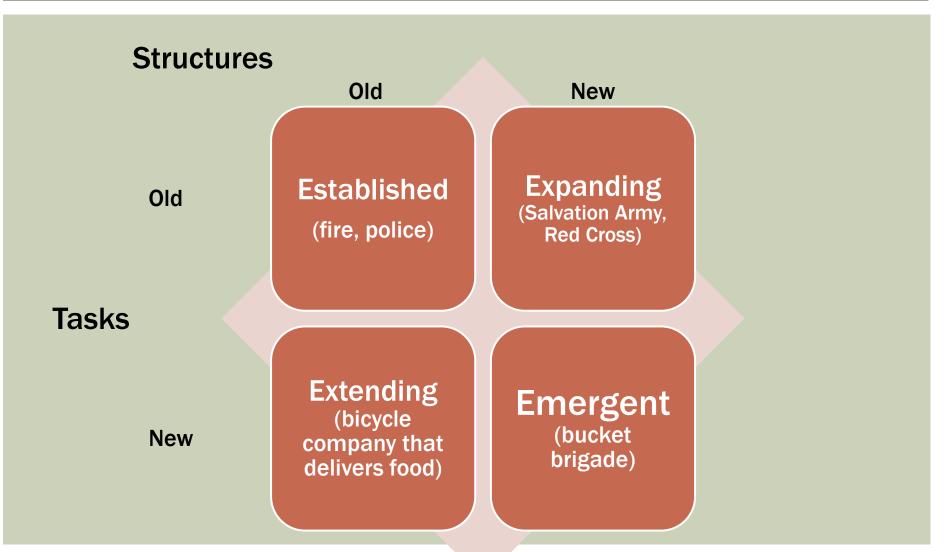
LOSS OF COMMUNALITY AS DAMAGING AS LOSS OF PHYSICAL COMMUNITY



SPONTANEOUS CONVERGENCE WILL OCCUR AFTER A DISASTER...



AND ORGANIZATIONS WILL ADAPT AND RESPOND



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

Vulnerable System

Exposure, Sensitivity and Resilience of:

- Population
- Economy

Risk

of

Disaster

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

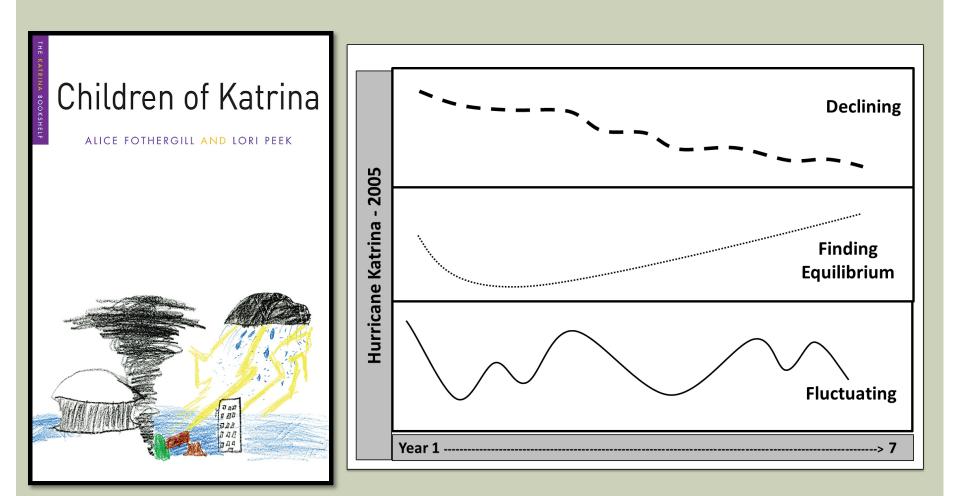
Ability, Resources and/or Willingness to:

- Mitigate
- Prepare
- Respond
- Recover

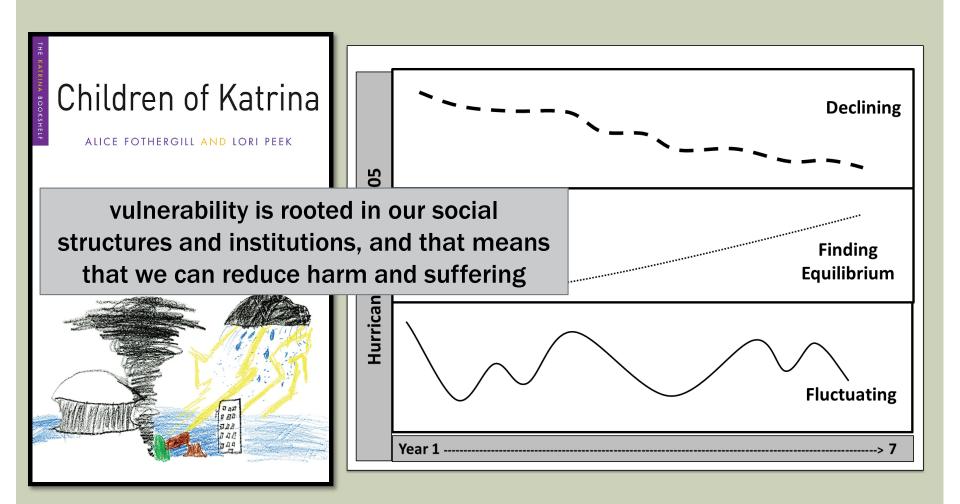
THE MOST VULNERABLE ALMOST ALWAYS SUFFER DISPROPORTIONATE LOSSES



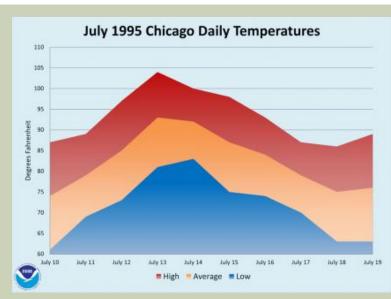
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THE TIES THAT BIND US DURING NON-DISASTER TIMES CAN SAVE US DURING DISASTERS





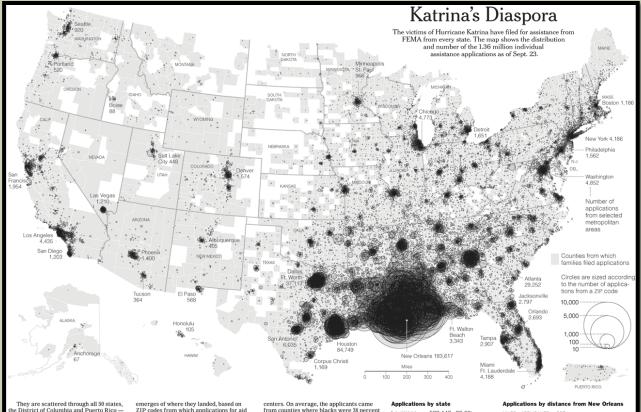


ERIG KLINENBERG

A SOCIAL AUTOPSY OF

SASTER IN CHICAGO

THE EFFECTS OF DISASTER MAY NOT BE "CONCENTRATED IN TIME AND SPACE"



the District of Zulambias and Peterto Rico-233 in Utah 7. Johansas, Joh way out in Alaska. They are clustered by the thoushaka. They are clustered by the thou-Atlanta and Memphis, and huddled in handfuls in unlikely hamlets like Shell Knob, Mo. (pop. 1,333) and Fountain Run, Ky. (pop. 236). Evacuese fled Hurricane Katrina and

the floods that followed in caravans of cars and fleets of buses, on helicopters and chartered planes, by boat and, a few, on foot. A month after the storm, a map emerges of where they landed, based on ZIP codes from which applications for aid were submitted to the Federal Emergency Management Agency as of Sept. 23. Of 1,356,704 applications, 86 percent

can from Lossi, or upinatania, to percent cam from Lossiana, Mississippi, Texas and Alabama. Bui 35,398 families were more than 1,000 miles from the Gulf among the farthest: one in Nome, Alaska, 3,331 miles from the French Quarter and another in Lihue, Hawaii, 4,279 miles away. Residents of New Orleans, a city that was two-thirds black, seem to have flocked to the nation? Africana American promation from counties where blacks were 28 percent of the population, more than twice the national average.

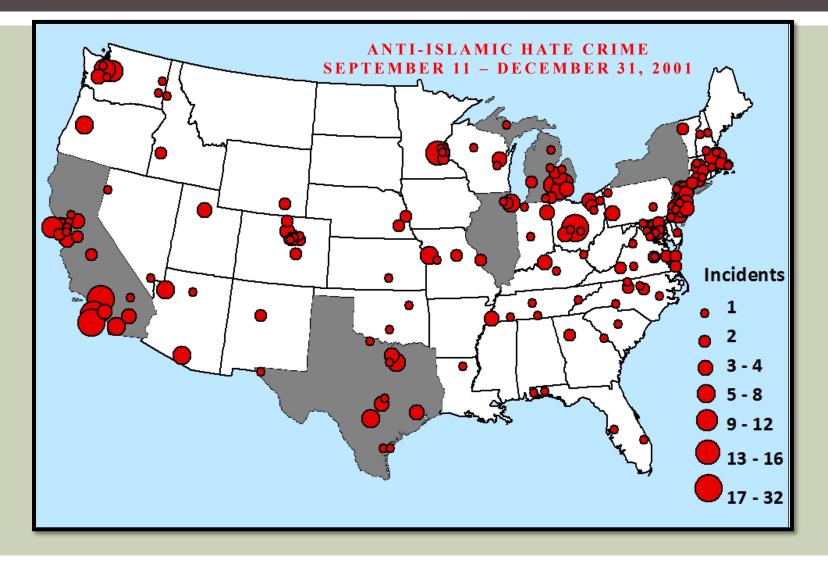
Baton Rouge, La., appears to be temporary home to 10 percent of evacuese, Houston 6.25 percent. But after the top 18 hubs, applicants are spread like the wind that whipped through their of a dengibborhoods: none of the other 900-plus metropolitan areas has even 1 percent of the total. Some 4.000 ZIP codes – among them Pocahontas, Miss.; Promise City, Jowa;

and Hope, Mich. - had just one applicant

Louisiana 523 149 38 Mississippi 383.840 28 Texas 156.895 11 109,469 Alabama Georgia 35,342 Florida 31.005 Tennessee 15.529 Arkansas 11.027 California 10,953 6,430 Illinois 73.065 Others

8.6%	MILES	APPLICANTS	PCT.	
8.3%	0-100	626,232	46.2%	
1.6%	100-200	338,080	24.9%	
8.1%	200-400	184,169	13.6%	
2.6%	400-800	143,497	10.6%	
2.3%	800-1,600	45,371	3.3%	
1.1%	1,600-3,200	13,403	1.0%	Distances could not be
0.8%	3,200+	232	0.0%	calculated for 0.4 per- cent of applications.
0.8%				
0.5%	Sources: FEMA; Census Bureau; Queens College Sociology Department			
5.4%	Matthew Ericson, Archie Tse and Jodi Wilgoren/The New York Times			

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

National Approach to Emergency Management	 Evidence-Based Indicators Adopted Nationally Policy Change Cultural Change through Increased Representation and Prioritization of Most Vulnerable People and Place
State- and Local-Level Organizations Involved in Emergency Response	 Volunary Organziations Active in Disaster Emergency Management Agencies
Individual Emergency Managers and VOAD Officials	•Knowledge •Skills •Attitudes •Behaviors





Thank you!

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