

Societal Impacts—Field Investigation

Types of Data to Be Collected and Recorded

Research in this field should be directed toward gaining an overview of the impacts of the earthquake on human behavior and community institutions. The impacts of the earthquake on community residents, special “at risk” populations, government operations, and commercial and economic activity are of primary interest.

Study of both the short- and long-term socioeconomic impacts of earthquakes is a complicated and labor-intensive activity. Given the short time typically spent in the field by EERI investigation teams, social scientists cannot expect to obtain enough data to support valid findings and research conclusions. The reconnaissance effort should not attempt to be evaluative, but point out what is known/observed and what topics need further study.

Social scientists participating in EERI field investigations can best contribute to knowledge of the societal impacts by concentrating on the following field activities:

- Focus as much as possible on obtaining highly perishable data through on-site observation of activities in the community.
- Draw qualitative observations and tentative conclusions about impacts. Indicate which areas of the community, which institutions, and which economic activities were most disrupted by the earthquake, which were least disrupted. Identify particularly hard-hit groups or organizations in the community.
- Indicate which hospitals or other community facilities experienced the highest demands for service.
- Collect whatever preliminary data on damage and social impacts are available, including newspaper accounts, FEMA and Red Cross data, information on destroyed and damaged buildings, etc.
- Indicate topics and issues that warrant further, in-depth study.

To accomplish the above objectives, it is suggested that the following documents be obtained during field activities (coordinate with emergency response investigators):

1. Local newspaper accounts, news videotapes.
2. Records from Red Cross shelters on meals served, housing provided, first-aid care given.
3. Hospital emergency department logs.
4. Community disaster plans.
5. Records on disaster assistance applications from FEMA, SBA, state disaster assistance agencies, Red Cross, etc.
6. After-action reports from fire, police, other public safety agencies.
7. Data on business damage and displacement from local merchants, associations, chambers of commerce, and other organizations.
8. Statistics from local government agencies and departments, including building departments, that document damage and social impacts.

9. Records from agencies providing crisis intervention and mental health services in the affected area.

The following field investigation checklist contains a listing of the types of data that, ultimately, a good social science investigation of a major earthquake would include. It is highly unlikely that any single reconnaissance effort will provide information on all or most of the topics listed.

CHECKLIST

Societal Impacts

In General

1. What is distinctive about the earthquake from a social science point of view? For example, were some community activities and functions or some segments of the population more seriously affected than others? Were any distinctive behaviors and response patterns observed?
2. Do generalizations derived from an initial look at the earthquake reinforce or contradict what has been stated in the disaster literature about human and organizational response in disasters?
3. Be sure to indicate how long after the earthquake report was prepared and submitted, as much data will change on a daily basis.

Casualties and Injuries

1. Where did deaths or injuries occur? Note nature, severity, and cause of injuries. Describe type of structure in which they occurred.
2. Where were the dead and injured taken and how were they transported? By whom?
3. What type of treatment did injuries require? First aid? If hospitalization was required, what was nature of treatment and duration of stay?
4. Map spatial distribution of morbidity and mortality. Note age, race, and ethnicity of victims.
5. Analyze patterns of human response during earthquakes to determine the relationships between behavior and morbidity, and behavior and mortality.
6. Check the coroner's office, public health department, hospitals, clinics, first-aid stations, and local ambulance services to determine causes of death and what kind of injuries were treated.
7. Describe any secondary emergencies such as fires or hazardous materials release.

Mental Health Services

1. Were emergency mental health and counseling services available? Were they needed?
2. How many people sought assistance?
3. What kind of problems were presented?
4. What was age, race, and ethnicity of those who sought assistance?

5. Were intervention or counseling programs able to reduce victims' stress and prevent future psychological dysfunctions, particularly among emergency workers?

Displaced Persons

1. How many people were left homeless?
2. What was done to house them? Describe emergency and temporary shelters. Have any long-term arrangements for housing been made?
3. What was done to feed them?
4. Describe any self-built shelters or housing.
5. Where are displaced persons now? With family members? Friends? In temporary housing? Is temporary housing self-built or officially provided?
6. What was duration of occupancy for both self-built and officially provided housing?
7. How many displaced persons left the area entirely?
8. Were those left homeless disproportionately from one socioeconomic class or ethnic group?

Economic and Social Impacts

1. Develop estimates of the major indicators of social and economic disruption.
 - a. Determine number and type of housing units that sustained total or major damage.
 - b. Estimate number of displaced households.
 - c. Determine number of persons sheltered.
 - d. How many businesses were destroyed or otherwise unable to function?
 - e. Is there any earthquake-related unemployment?
 - f. Describe major businesses and industrial sectors affected.
2. Describe economic impacts on commercial and distribution centers, private offices, public buildings, schools, hospitals, jails, etc.
3. Describe impacts on local businesses, shopping areas, etc.
4. Determine how different segments of the population (the elderly, disabled, non-English speaking, etc.) responded to the earthquake. Were any special problems encountered?
5. Did people have access to their homes or places of business?
6. Describe immediate economic impacts on unskilled, semi-skilled and skilled labor, professionals, shop owners/artisans, and the self-employed.
7. Was there equal access to formal and informal aid programs in the post-earthquake period?
8. Describe problems the community is likely to confront in the post-earthquake recovery period, including land-use changes, replacement of residential housing units, commercial redevelopment and reconstruction, and financial problems.

Field Investigation Form—Societal Impacts

Use this form for site-specific data collection to aid in making subsequent analyses. It is not meant to be substituted for the broader analysis of the earthquake's impacts on the community.

Name of Investigator: _____ Date: _____

Site location:

Injuries/Deaths

Did injuries or deaths occur?

Describe nature and causes of injuries/deaths:

Describe types of structure and locations in structure where injuries/
deaths occurred:

Social and Economic Impacts

Note the segments of the community that seem most affected by this earthquake—e.g., small business, non-English speaking, residents of a certain area, etc.

Note the approximate location of shelters and temporary housing, with an estimate of numbers being housed:

Note the social and economic characteristics of the most heavily damaged neighborhoods in the affected community(ies):

Use back of this sheet for sketches and additional notes.

Recommendations for Further Social Science Research

Does what occurred in this earthquake suggest certain follow-up research in the near-term?

