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THE DISASTER RESEARCH CENTER
AND ITS ACTIVITIES

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The Disaster Research Center (DRC) was established at the Ohio State University in 1963 and moved to the University of Delaware at the end of 1984. The Center was the first of its kind in the world and is the oldest in the United States. At the present time it is one of the extremely few research operations anywhere that maintains stand-by teams ready to launch immediate field studies of impending disasters and actual disaster impacts.

Faculty members from the University's Department of Sociology direct the Center's projects. Professor Joanne M. Nigg is Director, Professor Kathleen J. Tierney is Research Director, and Russell R. Dynes and E. L. Quarantelli are Research Professors. The staff, which numbers about three dozen persons, includes a Field Director, graduate students, undergraduate and office and research support personnel.

DRC engages in a variety of social science research projects on group and organizational preparations for, responses to, and recoveries from community-wide emergencies, particularly natural and technological disasters. The major focus of the work is on the emergency preparedness and response phases of disasters, but studies are also done on hazard mitigation and disaster recovery. Similarly, while most of the research is about group and community level behavior, studies have been undertaken of individual/household behaviors as well as national level activities.

Since its inception, DRC has conducted over 530 field studies of different events. Teams have systematically collected data on human and organizational aspects of earthquakes in Japan, Chile, Yugoslavia, Italy, Iran, El Salvador, Greece, Mexico, California, and Alaska; hurricanes in the southern and eastern United States as well as Puerto Rico, the Virgin Islands and Japan; floods in Italy, Canada, and more than a dozen states; and on the individual behavior and group aspects of tornadoes and hazardous chemical incidents in Canada, Mexico and the United States. Other studies have focused on the social aspects of large explosions, forest fires, plane crashes, shore erosion episodes, destructive tidal waves, major dam breaks, and massive blizzards in Australia, Italy, Canada and different parts of the United States.

More than a dozen cities struck by major disasters have been restudied several years after the initial field work with research being done as long as five years after the event. For purposes of comparison, Center personnel have also examined organizational preparedness and responses to civil disturbances and riots in both the United States and other countries. For approximately ten

years, DRC also conducted research on the effects of stress upon crisis processes by utilizing audio and recording devices in a laboratory to simulate conditions paralleling real life stressful situations (e.g., the communication behavior of police radio dispatching offices).

Recent studies at DRC have focused on mass media news reporting of disasters, social and organizational aspects of the delivery of mental health services in mass emergencies, sociobehavioral planning for and responses to acute chemical hazards, the emergence of disaster-related citizen groups, police and fire departments preparations for and management of community disasters, and the organizational and public responses to the 1985 Mexico City earthquake.

Current work includes:

(1) research on preparations for and responses to major community disasters by lifeline organizations (such as those involved in Hurricane Hugo and the Loma Prieta earthquake);

(2) a study of the delivery of emergency medical services in actual and potential mass casualty situations;

(3) a comparison of community earthquake mitigation and emergency preparedness measures in two major cities in China and the United States;

(4) research on anti-social behavior in St. Croix, the US Virgin Islands, following a hurricane;

(5) a comparative study of community disaster recovery especially the decision making with respect to reconstruction in Charleston, South Carolina and Santa Cruz, California; and

(6) a case study on sociobehavioral and emergency management aspects of the 1989 Exxon Valdez oil spill.

Previous research at DRC has looked at, among other topics, legal aspects of governmental responses in disasters, the role of volunteers in disaster activities, images of behavior portrayed in disaster movies, role conflict in emergencies, short and long term problems of financial institutions in large scale disasters, the emergence and operations of rumor control centers, the sociocultural aspects of mass fatalities situations, the functioning of relief and welfare groups in stress situations, crisis intervention in disaster-related mental health problems, the uses and difficulties of emergency operating centers (EOCs), organizational changes as a result of disasters, the role of religious groups in mass emergencies, difficulties in implementing disaster planning, and the problems that surface in mass evacuation and sheltering operations.

Data are obtained in a variety of ways in the field, although the primary source of information is derived through in-depth interviewing, usually involving tape recordings. This is supplemented by systematic participant observation, as well as by the gathering of documents such as after-action reports, disaster plans, organizational logs, and local mass media accounts. Much of this field research is conducted by teams of trained research assistants, mostly graduate students, who are sent to disaster sites. Usually DRC can mobilize a team within 4-6 hours after hearing news of an event. In some instances with long warning periods, as in the case of floods and hurricanes, Center teams have reached possible disaster sites before impact.

On occasion, mailed surveys have been used to complement field data. In addition, large-scale mail surveys have been conducted to study, for example, innovations developed by police and fire departments in the face of massive civil disorders, the emergency planning of radio and television stations, and the patient intake of hospitals in mass casualty situations. Also, DRC has undertaken, as early as the 1970's, large-scale population surveys on the long-run social-psychological consequences of disasters of victims and non-victim householders in disaster localities, as well as surveys of behavior during the emergency time.

All data are obtained on a confidential basis; that is DRC never identifies or uses names of actual persons in any of its reports. Tape recordings, documents and other material acquired by Center personnel during the course of the field work are only available for use by Center staff for specific research purposes. Most DRC publications either mask or omit the names of the specific communities and organizations which were studied.

The research undertaken provides basic knowledge about group behavior and social life in large scale community crises as well as information that can be applied to develop more effective planning and policies to reduce the impacts of future disasters. While the Center does not provide training or educational courses or degrees, the research results are distributed in various ways, including conference presentations, special issues of journals, membership in professional and scientific committees, and the DRC publication program. Center personnel have acted as consultants to organizations ranging from the World Bank to local emergency management agencies.

In 1989, DRC personnel made 25 formal presentations at professional meetings and conferences. Over 40 such presentations were made in 1990. Center staff have also testified before US Congressional committees and similar state groups.

The Center has its own book, monograph and report series which has produced over 500 publications, about 300 of which are still currently available. These include 51 books and monographs and 219 articles.

The range of topics covered is indicated by some of the publication titles in the last two years:

Research on the Socioeconomic Aspects of Disasters in the Asian-Pacific Region;

Local Mass Media Operations, Problems, and Products in Disasters;

Disaster Education: Its Substantive Content and Target Audience;

Characteristics of Citizen Groups Which Emerge with Respect to Hazardous Waste Sites;

Planning and Management for the Prevention and Mitigation of Natural Disasters, Especially in a Metropolitan Context;

Needed Innovation in the Delivery of Emergency Medical Services in Disasters: Present and Future;

Conceptualizing Disasters From a Sociological Perspective;

Improving Theory and Research on Hazard Mitigation: Political Economy and Organizational Perspectives;

The Role of Archives for Comparative Studies of Social Structure and Disaster;

Disaster Prevention and Mitigation in Lada: Problems and Options in Planning and Implementing in a Composite Country;

The Organizational and Public Response to the September 1985 Earthquake in Mexico City;

Criteria for Evaluating Disaster Planning in a Urban Setting; Reconstruction in the Context of Recovery: Thoughts on the Alaskan Earthquake;

A Cross-Societal Comparison of Disaster News Reporting in Japan and the United States;

Disaster Analysis: Police and Fire Departments;

Planning for Transportation Accidents Involving Hazardous Materials;

Explaining Differential Outcomes in the Small Business Disaster Loan Application Process;

Radiation Disasters: Similarities to and Differences from Other Disaster;

Guidelines for the Development of Emergency Planning for Risk/High Hazard Installations;

The Warning Process and Evacuation Behavior: The Research Evidence;

Similarities and Differences in Institutional Responses to Natural and Technological Disasters; and

The Social and Cultural Context of Disasters and Small Dwellings.

The DRC's specialized library, which contains the world's most complete collection on the social and behavioral aspects of disasters - now over 30,000 items, is open to all interested scholars and public and private agency personnel involved in emergency management. The collection, which is largely incorporated in a keyworded, computerized data base, hold many items that are either rare or unavailable elsewhere (e.g., almost all of the earlier social science writings in the disaster area, the largest set of English language Ph.D. dissertations on social aspects of disasters to be found anywhere, and many unpublished papers on disaster topics presented at professional meetings). In addition to maintaining its own data bases, the Center also serves as a repository for materials collected by other agencies and researchers, including the original archives of the Disaster Research Group of the US National Academy of Sciences.

DRC also maintains continuing relationships with Canadian, Indian, Australian, French, Israeli, Chinese, Swedish, Belgian, Japanese, West German and Soviet disaster researchers, a number of whom have been Visiting Research Associates at the Center for periods up to a year. In the last 18 months, DRC had visitors from many foreign countries including the Soviet Union, Israel, Costa Rica, France, Japan, Canada, Italy, New Zealand, Australia, Venezuela, Switzerland, and the Republic of Armenia.

The Center has also conducted collaborative field research with groups in Japan, Mexico, and China. Currently the Center maintains exchange programs with Italian and Chinese disaster researchers. In the last four years, DRC also co-sponsored professional meetings with European disaster researchers in Perugia, Italy, Asian disaster researchers at the Asian Disaster Preparedness Center in Bangkok, Thailand, and with Italian social science disaster researchers at the University of Delaware.

Although there currently is some direct University support for a small percentage of everyday operational expenses and some staff positions, almost all of the research work, and much of the library operations have been funded by interested agencies and organizations. The grants and contracts received from such groups have totalled over fifty in number with most of them involving multiple year funding.

Past DRC activities have been supported by diverse sources, including the Health Resources Administration, the Center for Applied Social Problems, the National Institute of Mental Health, the Law Enforcement Assistance Administration for the Department of Justice, the Defense Civil Preparedness Agency, the Water Resources Research Program in the Department of the Interior, the US Air Force Office of Scientific Research, the State of Ohio Department of Mental Health and the NHK Foundation in Japan. Staff members have also received personal grants from the National Association of Broadcasters, the Ohio Council of Churches, the Disaster Research Services, the Social Science Program of the Merston Center, and the Social Science Research Council. However, the major sustaining funding for DRC has been provided through grants from the National Science Foundation and contracts with the US Federal Emergency Management Agency.