

D I S A S T E R
R E S E A R C H
C E N T E R

1999 Annual Report

University of Delaware
Newark, Delaware

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Disaster Research Center Personnel

Research Staff

***Joanne M. Nigg, Co-Director
Kathleen J. Tierney, Co-Director
Russell R. Dynes, Professor Emeritus
E. L. Quarantelli, Professor Emeritus
James M. Dahlhamer, Field Director***

* * * *

Office Coordinator

Mary Ann Brown

Library Coordinator

Susan J. Castelli

* * * *

Postdoctoral Research Fellows

***James M. Dahlhamer
Jasmin K. Riad
Gary R. Webb***

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Graduate Research Assistants

***Marcia Cavanaugh
Kathleen Curry
Michael Kiley-Zufelt
Nicole Mott
Nicole Vadino
Tricia Wachtendorf***

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Research Assistants

***Keith Appleby
Mary Bigelow
Rory Connell***

* * * *

Undergraduate Research Aides

***Christopher Adams
Colleen Carey
Nancy Dahn
Nathaniel Davis
Shannon Dawson
Traci Diablo
Jennifer Endrzejewski***

***Stephen Gardner
Nicholas Kondraschow
Jennifer Mason
Emily Pope
Stefanie Roberts
Adena Sherman
Rachel Smedley***

* * * *

Resource Collection Staff

***Christine Bush
Leah DeLoach
Laura Devenney***

***Kelly Krawczyk
Scott Lennox
Agustin Ortiz***

1999 Publications

Articles and Book Chapters

Dynes, Russell R.

“Comments on Drabek and Other Encyclopedists.” Pp. 211-215 in International Journal of Mass Emergencies and Disasters, Vol.17, No.2, August 1999.

Quarantelli, E. L.

“Implications for Programs and Policies from Future Disaster Trends.” Pp. 9-19 in Risk Management: An International Journal, Vol. 1, 1999.

“The Computer Based Information/Communication Revolution: A Dozen Problematical Issues and Questions They Raise For Disaster Planning.” Pp. 239-263 in La Protezione Civile Verso Gli Anni 2000. Florence, Italy: CISPRO. (Also available at Web site: www.area.fi.cnr.it/protezionecivile.)

Riad, Jasmin, F.H. Norris and R.B. Ruback

“Predicting Evacuation in Two Major Disasters: Risk Perception, Social Influence, and Access to Resource.” Pp. 918-934 in Journal of Applied Social Psychology, Vol. 29, No. 5.

Riad, Jasmin, F.H. Norris, J.L. Perilla, K. Kaniasty and E. Lavizzo

“Stability and Change in Stress, Resources, and Psychological Distress Following Natural Disaster: Findings From a Longitudinal Study of Hurricane Andrew.” Pp. 363-396 in Anxiety, Trauma and Stress: An International Journal, Vol. 12.

Tierney, Kathleen J.

“Toward a Critical Sociology of Risk.” Pp. 215-242 in Sociological Forum, Vol. 14.

Book Reviews

Riad, Jasmin

Managerial and Organizational Cognition, Colin Eden and J.C. Spender, (Eds.).
Pp. 75-76 in Risk Management: An International Journal, Vol. 1, No. 2.

Tierney, Kathleen J.

Hurricane Andrew: Ethnicity, Gender, and the Sociology of Disasters, Walter Gillis Peacock, Betty Hearn Morrow, and Hugh Gladwin (Eds.). Pp. 1557-58 in American Journal of Sociology, Vol. 104.

Webb, Gary

The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA, by Diane Vaughan. Pp. 276-278 in Journal of Risk Research, University of Chicago Press, Vol. 2, No. 3, 1996.

Technical Reports

Tierney, K. J., S.E. Chang, R.T. Eguchi, A. Rose, and M. Shinozuka

Improving Earthquake Loss Estimation: Review, Assessment, and Extension of Loss Estimation Methodologies. Pp. 13-28 in Research Progress and Accomplishments, 1997-1999. Buffalo, NY: State University of New York at Buffalo, Multidisciplinary Center for Earthquake Engineering Research.

***Doctoral Dissertation
And
M.A. Thesis***

D'Souza, Melvin J.

“Socio-structural Differentials in the Mental Health Impacts of the 1994 Northridge Earthquake.” Doctoral dissertation, Department of Sociology and Criminal Justice, University of Delaware.

Wachtendorf, Tricia

“A River Runs Through It: Cross-Border Interaction During the 1997 Red River Flood.” M.A. thesis, Department of Sociology and Criminal Justice, University of Delaware.

Academic Presentations

Dynes, Russell R.

“Voltaire and Rousseau’s Discussion on the Lisbon Earthquake: 18th –19th Century.”
Colloquium, Department of English, University of Delaware, April 19.

“Disaster and Popular Culture.” Paper presented at the annual meeting of the
American Sociological Association, Chicago, IL, August 8.

“Seismic Waves in Intellectual Currents in 18th Century Thought.” Presentation at
the European Sociological Association Meeting, Amsterdam, The Netherlands,
August 20.

“On Disaster and Disaster Research.” Presentation at the Sociology/Anthropology
Seminar Series, North Carolina State University, Raleigh, NC, Dec. 9.

Kiley-Zufelt, D. Michael

“Hospital Rehabilitation Impediments and Incentives: Policy Influences.”
Presentation
at the Principal Investigators’ Meeting, Multidisciplinary Center for Earthquake
Engineering Research, State University of New York at Buffalo, October 30.

Nigg, Joanne M.

“The Implications of Scientific Prediction for Policy: A Case Study of Earthquake
Prediction.” Paper presented at the 1999 Annual Meeting of the American
Association for the Advancement of Science, Anaheim, CA, January 21-26.

“Social Science Accomplishments and Frontiers in the National Earthquake Hazards
Reduction Program.” Paper presented at the 1999 Annual Meeting of the American
Association for the Advancement of Science, Anaheim, CA, January 21-26.

“Perceptions of Earthquake Impacts and Loss-Reduction Policy Preferences:
A Progress Report.” Presentation at the NSF-funded US-Japan Workshop on Urban
Earthquake Hazards, Sonoma, CA, March 19-20.

“The Built Environment: Connections Between Social Science and Engineering.” Presentation in the College of Engineering Colloquium series, University of Delaware, May 7.

“An Earthquake Early Warning System: What We (Don’t) Know.” Presentation at the 24th Annual Natural Hazards Research and Applications Workshop, Boulder, Colorado, July 11-14.

“Sustainability and Hazard Mitigation: A Challenge for Communities.” Invited plenary presentation at the 24th Annual Natural Hazards Research and Applications Workshop, Boulder, Colorado, July 11-14.

“Disaster Myths.” Invited lecture for the Academy on Lifelong Learning, University of Delaware, September 22.

Quarantelli, E. L.

“The History of DRC and Its Current Activities.” Presentation at the Disaster Management Centre, Cranfield University, Swindon, England, May 10.

“An Historical View of the Development of Social Science Disaster Research and Its Links to Sociology.” Presentation at the Centre for Disaster Management, School of the Built Environment, Coventry University, Coventry, England, May 12.

“Reaction to the Second Assessment Recommendation That National Culture Regarding Hazard Mitigation Be Changed.” Presentation at the 24th Annual Hazards Research and Applications Workshop, University of Colorado, Boulder, Colorado, July 13.

“Crises to Come.” Presentation at the International Conference on the Future of European Crisis Management, The Hague, The Netherlands, November 9.

“Theoretical and Empirical Aspects of Social Science Disaster Research.” Presentation at the Anglia Polytechnic University, Cambridge, England, November 24.

“Disaster Related Social Behavior: Summary of 50 Years of Research Findings.” Presentation at the International Conference for the Reconstruction From the 9/21 Earthquake, Taichung, Taiwan, December 16.

“The Social Factors Involved in the More and Worst Disasters the World Will Have in the 21st Century.” Presentation at the International Conference for the Reconstruction for the 9/21 Earthquake, Taichung, Taiwan, December 17.

“How to Develop a Disaster Research Center.” Department of Sociology, Tunghai University, Taichung, Taiwan, December 17.

Riad, Jasmin K.

“Future Implications of the Freedom of Information Act Changes on Disaster Research.” Presentation at the Research Add-on Conference, 24th Annual Natural Hazards Research and Applications Workshop, Boulder, CO, July 15.

Tierney, Kathleen J.

“Disasters and Mental Health.” Invited presentation at the UCLA Conference on Public Health and Disasters, Redondo Beach, CA, April 11-14.

“Businesses and Disasters: What (Little) We Think We Know and What (Lots) We Don’t Know.” Invited presentation in the session on Business Vulnerability, Impacts, and Planning, 24th Annual Natural Hazards Research and Applications Workshop, Boulder, CO, July 11-14

“The Second Assessment of Research on Natural Hazards: Research Syntheses and a New Framework for the Study of Hazards and Disasters.” Invited lecture, Disaster Prevention Research Institute, Kyoto University, October 13.

Tierney, Kathleen J. and James M. Dahlhamer

“Factors Influencing Business Recovery Following Earthquakes.” Paper presented at the 6th Japan/United States Workshop on Urban Earthquake Hazard Reduction, Kobe, Japan, January 12-14.

Wachtendorf, Tricia

“Defending Property, Defending Identity From Disaster: Arendt, Goffman, and the Symbolic Meaning of Property.” Presentation at the Eastern Sociological Society, Boston MA, March 7.

“Transnational Disasters: A Look at the 1997 Red River Flood.” Presentation at the 24th Annual Hazards Research and Applications Workshop, Boulder, CO, July 14.

“Exploring the Popular Culture of Disaster.” Invited Panelist, International Research Committee on Disasters Panel, American Sociological Association, Chicago, IL, August 8.

Webb, Gary R.

“Individual and Organizational Response to Natural Disasters and Other Crisis Events: The Continuing Value of the DRC Typology.” Invited paper presentation for a special Presidential session honoring Russell R. Dynes and E.L. Quarantelli at the annual meeting of the Eastern Sociological Society, Boston, MA, March 4-7.

“Sociological Themes in the Popular Culture of Disaster.” Invited presentation at the 24th Annual Natural Hazards Research and Applications Workshop, Boulder, CO, July 11-14.

“Sociology and Disasters: Implications of the Ýzmit, Turkey Earthquake of August 17, 1999.” Presentation at Bođaziçi University, Istanbul, Turkey, October 4.

“Social Aspects of the Ýzmit, Turkey Earthquake of August 17, 1999.” Invited presentation, University of Delaware, October 14.

“Restoration Activities Following the Ýzmit, Turkey Earthquake of August 17, 1999.” Invited presentation at the Multidisciplinary Center for Earthquake Engineering Research, State University of New York at Buffalo, October 29.

Presentations to Governmental Bodies And Professional Organizations

Dahlhamer, James M.

Participant. U.S. House of Representatives Committee on Government Reform, Subcommittee on Government Management, Information, and Technology, Emergency Management Hearing and Workshop, Washington, D.C., March 22-23.

Dynes, Russell R.

Discussant. International Conference on Information Systems for Disaster Management, Ministry of Interior and Ministry of Environment, Government of Mexico, Mexico City, May 11-14.

Discussant. "Creating a Culture of Sustainable Hazard Mitigation," 24th Annual Natural Hazards Research and Application Workshop, Boulder, Colorado, July 10-15.

Nigg, Joanne M.

"Evaluation of Project Impact Pilot Communities: Result from Year 2 Research." Invited presentation to Mitigation Directorate Administrators at the Project Impact Summit, Washington, DC, December 14.

Quarantelli, E. L.

"The Study of Disasters." Presentation at the Sun Yat-Sen Institute for Social Sciences and Philosophy, Academia Sinica, Taipei, Taiwan, December 18.

Riad, Jasmin

"Lessons Learned From the Pilot Communities." Invited presentation to Federal Emergency Management Agency Region V, Chicago, IL, January 26.

“Evaluating Disaster Education Programs.” Invited presentation to Community and Family Preparedness Training and National Conference, held at the Federal Emergency Management Agency Mount Weather Training Facility, Virginia, June 8.

Tierney, Kathleen J.

Invited series of lectures on the social aspects of the Year 2000 problem, sponsored by IBM Corporation, February 26 (San Francisco), March 9 (Miami), May 18 (Armonk, NY), and September 29 (Danbury, CT).

“Unusual Occurrences: Planning Considerations.” Invited presentation at the meeting of the Chesapeake Region Law Enforcement Accreditation Alliance, Newark, DE, June 18.

Wachtendorf, Tricia

“Lessons Learned From the Popular Culture of Disaster.” Emergency Information Infrastructure Partnership Virtual Forum Roundtable, <http://www.emforum.org>, February 23.

“Cross-Border Issues in Disaster Response,” Invited Panelist, Red River Basin Disaster Information Network Virtual Workshop, <http://www.emforum.org/redriver/>, August 26.

Webb, Gary R.

Participant. U.S. House of Representatives Committee on Government Reform, Subcommittee on Government Management, Information, and Technology, Emergency Management Hearing and Workshop, Washington, D.C., March 22-23.

Invited Panelist. Student Day: Academic Opportunities in Emergency Management, Emergency Information Infrastructure Partnership Virtual Classroom, March 31.

Disaster-Related Academic Activities

Dynes, Russell R.

Distinguished Ph. D. Alumni Award, Centennial Celebration, Department of Sociology, The Ohio State University, Columbus, OH, April 9.

Discussant. "Sustainability and Coordinated Renewal of Civil Infrastructure Systems, Institute of Civil Infrastructure Systems." Robert Wagner Graduate School of Public Service, New York University, April 21-22.

Nigg, Joanne M.

Member. Board on Natural Disasters. National Academy of Science/National Research Council. 1996-1999.

Member. Research Committee. Multidisciplinary Center for Earthquake Engineering Research. 1997-present.

Member. Editorial Advisory Board. International Journal of Risk Management. 1997-present.

Member. Editorial Board. Journal of Seismology and Earthquake Engineering (responsible for social-economic issues). 1996-present.

Member. Editorial Board. Kluwer Academic Publishers, Advances in Natural and Technological Hazards Research series. 1994-present.

Tierney, Kathleen J.

Member. Editorial Board, Earthquake Spectra and Natural Hazards Review.

Member. Learning from Earthquakes Committee. Earthquake Engineering Research Institute.

Member. Research Committee. Multidisciplinary Center for Earthquake Engineering Research.

Awardee. Short-Stay Fellowship for research travel, Japan Society for the Promotion of Science.

Other Disaster-Related Professional Activities

Dahlhamer, James, M.

Session Presider. "Interests, Ideology, and Social Policy." The 69th Annual Meeting of the Eastern Sociological Society, Boston, MA., March 4-7.

Dynes, Russell R.

Discussions with municipal and national officials on archival records of the Lisbon Earthquake of 1755, Lisbon, Portugal, August 22-23.

Nigg, Joanne M.

Past-President and Board Member. Earthquake Engineering Research Institute.

Proposal Reviewer. National Science Foundation.

Manuscript Reviewer. Environmental Hazards, International Journal of Mass Emergencies and Disasters.

Quarantelli, E. L.

Organizer. Panel of the International Sociological Association's Research Committee on Disasters on "Cross-Cultural and Cross-Societal Disaster Research: Problems and Possibilities From the Perspective of Those Who Have Done Such Research." American Sociological Association Annual Meeting, Chicago, Illinois August 7.

Manuscript Reviewer. Journal of Contingencies and Crisis Management, Social Science Quarterly, Disasters: Journal of Disaster Policy, Studies and Management, Natural Hazards Journal, Risk Management, and International Journal of Mass Emergencies and Disasters.

Chair. Ad Hoc Awards Committee. International Sociological Association's Research Committee on Disasters.

Appointed NATO Co-Director for NATO-Russia Seminar on Forecasts and Prevention of Catastrophes, "A Research Agenda for the Start of the Millennium." Planning and organization for meeting originally scheduled to be held in Moscow, Russia in 1999, now postponed to late in 2000.

Reviewer. Grant proposals to Division of Civil and Mechanical Engineering, National Science Foundation.

Participant. Roundtable on "From Crises to Contingencies" book project, The Hague, The Netherlands, November 7.

Reviewer. Book proposal on disaster management for Kluwer Publishers.

Appointed International Scientific Advisory Committee for Second International Conference on Risk Analysis: Computer Simulation in Risk Analysis and Hazard Mitigation to be held in Bologna, Italy.

Riad, Jasmin

Manuscript Reviewer. Social Science Quarterly.

Reviewer. Proposal for National Science Foundation.

Member. National Weather Service Assessment Team for Hurricane Floyd.

Guest speaker. National Public Radio, "All Things Considered," featuring discussion on evacuation from Hurricane Floyd, September 18.

Tierney, Kathleen J.

Organizer and speaker. Training sessions for post-earthquake reconnaissance field work, sponsored by the Earthquake Engineering Research Institute, Boston and New York City, May 3 and 4.

Guest speaker. "The Diane Rehm Show," syndicated National Public Radio talk show from WAMU, Washington, DC, September 7.

Manuscript Reviewer. American Journal of Sociology, Social Problems, Risk Analysis, Earthquake Spectra, Gender and Society.

Wachtendorf, Tricia

Member. Red River Basin Disaster Information Network.

Webb, Gary R.

Manuscript Reviewer. International Journal of Mass Emergencies and Disasters.

Presider. Session on Social Movements and Identity Politics at the annual meeting of the Eastern Sociological Society, Boston, MA, March 4-7.

Organizer and Presider. Session on “Exploring the Popular Culture of Disaster” at the annual meeting of the American Sociological Association, Chicago, IL, August 6-10.

Invited Participant. “Research Needs Emerging from Recent Earthquakes.” A research agenda-setting meeting organized by the Earthquake Engineering Research Institute for the National Science Foundation, San Francisco, California, October 25-26.

Contracts and Grants

Continuing

Riad, J.K. and O'Neal, A., Co-Principal Investigators. A Socio-ecological Analysis of an Emergency Operations Center Quick Response Program from Natural Hazards and Applications Information Center, University of Colorado	\$ 2,890
Businesses and Disasters: Consequences of Disaster Victimization For Businesses and Business Districts National Science Foundation	\$ 249,595
Disaster Resistant Communities Initiative: Evaluation of Pilot Phase Federal Emergency Management Agency	\$ 259,930
Assessment of Earthquake Loss Estimation Methodologies Multidisciplinary Center for Earthquake Engineering Research	\$ 70,000
Incentives and Impediments for Adoption of Structural Innovations Multidisciplinary Center for Earthquake Engineering Research	\$ 164,770
Perceptions of Earthquake Impacts and Loss-Reduction Policy Preferences Among Community Residents and Opinion Leaders National Science Foundation	\$ 300,608

New

Evaluation of New and Emerging Technologies for Earthquake Preparedness and Response Multidisciplinary Center for Earthquake Engineering Research	\$ 69,984
Earthquake Early-Warning Communication Issues EQE International/California Institute of Technology/ Trinet Program	\$ 52,587

***Disaster Research Center
Field Studies***

June 16-20

Oakland, California

June 30- July 4

***New Hanover County,
North Carolina***

August 11-14

Seattle, Washington

August 15-17

Deerfield Beach, Florida

August 18-20

Pascagoula, Mississippi

August 24-31

***Tucker and Randolph Counties,
West Virginia and
Allegany County, Maryland***

***September 28 -
October 5***

***Northwestern Turkey
(Ýzmit, Gölcük, Adapazari)***

December 12

Washington, DC

Visitors to DRC

Australia

James Cook University

Canada

***Dalhousie University
Department of Pathology***

***Carleton University
School of Journalism***

U.S.A.

***Arizona State University
School of Justice Studies***

***Boston College
Department of Sociology***

***National Science Foundation
Arlington, Virginia***

***Multidisciplinary Center for
Earthquake Engineering
Research
Buffalo, New York***

New Preliminary Papers

Dahlhamer, James M., Gary R. Webb, and Kathleen Tierney

“Predicting Business Financial Losses in the 1989 Loma Prieta and 1994 Northridge Earthquakes: Implications for Loss Estimation Research.”

Dynes, Russell R.

“The Dialogue Between Voltaire and Rousseau on the Lisbon Earthquake: The Emergence of a Social Science View.”

Quarantelli, E.L.

“Disaster Related Social Behavior: Summary of 50 Years of Research Findings.”

“The Sociology of Panic.”

“The Disaster Recovery Process: What We Know and Do Not Know From Research.”

Riad, Jasmin K.

“The Psychology of Evacuation and the Design of Policy.”

Webb, Gary R.

“Individual and Organizational Response to Natural Disasters and Other Crisis Events: The Continuing Value of the DRC Typology.”

“Restoration Activities Following the Yzmit, Turkey Earthquake of August 17, 1999.”

Webb, Gary R., Kathleen J. Tierney, and James M. Dahlhamer

“Business and Disasters: Empirical Patterns and Unanswered Questions.”

“Predicting Long-Term Business Recovery from Disaster: A Comparison of the Loma Prieta Earthquake and Hurricane Andrew.”

Webb, Gary R., Michael Beverly, Megan McMichael, James Noon, and Tabitha Patterson.

“Role Improvising Under Conditions of Uncertainty: A Classification of Types.”

Wachtendorf, Tricia

“Cross-Border Issues in Disaster Response.”

“Exploring the Popular Culture of Disaster.”

“Lessons Learned From the Popular Culture of Disaster.”