

PUBLIC MANAGEMENT, FINANCE AND LIABILITY ISSUES IN EMERGENCY MANAGEMENT

COURSE OUTLINE

Required Texts:

- (1) Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation. Peter Rossi, James Wright, Eleanor Weber-Burdin, Academic Press, New York, 1982.
- (2) Natural Hazard Risk Assessment and Public Policy: Anticipating The Unexpected. William Petak and Arthur Atkisson, Springer-Verlag, New York.
- (3) Reconstruction Following Disaster. Eugene Haas, Robert Kates, Martyn Bowden, University of Colorado (IBS #6), Boulder, CO, 1977.
- (4) General Accounting Office, "National Flood Insurance," (GAO/RCED-82-105), August, 1980.
- (5) General Accounting Office, "National Flood Insurance," (GAO/RCED-83-53), January, 1983.
- (6) General Accounting Office, "Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effectiveness," 1982.
- (7) Economics of Natural Disasters: Implications for Federal Policy. Douglas Dacy and Howard Kunreuther, Free Press, New York, 1979.
- (8) Will Local Government Be Liable for Earthquake Losses? Berkeley, CA, Association of Bay Area Governments, 1979.

Recommended Readings:

- (1) American Land Planning Law: Cases and Materials. N. Williams, 1979.
- (2) Disaster Planning for Local Government. Roger E. Herman, Universe Books, New York, 1982.
- (3) Geological Hazards, Resources and Environmental Planning. Gary Griggs and John Gilchrist, Wadsworth Publishing Co., 1983.
- (4) Conquering Disaster. Thomas Drabek and William Key, 1984.
- (5) Organizations and Environments. Howard Aldrich, Prentice Hall, New York, 1979.
- (6) Alternatives to Regulation: Managing Risks to Health, Safety and the Environment. Michael Baram, Lexington Books, Lexington, MA, 1981.

- (7) Environment, Pitfalls of Hazard Management." Thomas Bick and Roger Kasperson, 1978.
- (8) "Patterns of Interorganizational Relationships." Richard Hall, et al., Administrative Science Quarterly, 22 (Sept. 1977), pp. 457-474.
- (9) Disaster Insurance Protection. Howard Kunreuther, et. al., Wiley - Interscience, New York, 1978.
- (10) "Disaster Planning: Small and Large." E. L. Quarantelli, Disaster Research Center, Ohio State University, Columbus, OH, 1981.
- (11) "Managing the Recovery from a Natural Disaster." Claire Rubin, Washington, D.C.: Management Information Service Report, Vol. 14, No. 2, International City Management Association, (Feb. 1982).
- (12) A Primer for Preparedness for Acute Chemical Emergencies, K.J. Tierney, Disaster Research Center, Ohio State University, Columbus, OH.

PUBLIC MANAGEMENT, FINANCE AND LIABILITY ISSUES IN EMERGENCY MANAGEMENT

Introduction:

This course is designed for graduate-level study leading towards a masters degree in public administration (MPA). Although designed for graduate-level study, this course can be modified as appropriate to complement undergraduate programs in public administration.

Intended as a course designed to provide an understanding of financial and liability issues in emergency management, the purpose of this course is to provide a point of departure for understanding the issues and policy decisions that are associated with major natural and technological disasters.

As a graduate-level course, an appropriately thorough examination of research relevant to financial and liability management strategies in emergency management is expected.

The required and recommended readings are intended to provide an understanding of:

1. Key elements in financial management;
2. Legal issues and liability consequences of decisions and policies;
3. Case studies on litigation involving emergency management; and,
4. Understanding financial management and cost recovery in disasters.

Objectives:

The primary course objectives are to (1) identify the key managerial strategies used successfully by emergency managers to maintain agency integrity and improve preparedness; (2) examine the similarities and differences in strategies used by emergency managers in urban and rural areas; (3) review the communication, cooperation and coordination mechanisms used among agencies; (4) compare strategies that are found to be most successful; (5) examine the legal consequences of disasters; (6) assess the economic outcome of disaster-impacted communities; and, (7) analyze selected case studies which illustrate the key concepts and effective strategies. Knowledge of the above would improve the administrative response by governments during emergencies and reduce the subsequent loss of life and property.

Format:

This course can be used separately or as a part of a series of classes with appropriate modification.

Ten intensive seminar sessions of two-to-four hours' duration comprise this course.

A comprehensive bibliography citing relevant literature which addresses major policy issues and decisions surrounding intergovernmental relations and emergency management is provided to assist seminar participants in the development of written assignments. Also, the bibliography provides a basic point of departure for further research on emerging intergovernmental relations policy issues or specific policy decisions. The on-going identification and assessment of new literature is encouraged.

Prior to each seminar session, participants are required to complete all assigned readings. Additionally, participants are required to prepare a two-to-five page summary of the assigned readings which either the individual or the instructor selects from the relevant bibliography. These papers are to be duplicated and disseminated to both seminar participants and the instructor. Each participant is expected to present an overview of relevant findings and be prepared to defend salient points addressed.

In addition to the above requirements, each seminar member is required to develop a fifteen-to-twenty page comprehensive research paper on either an emerging policy issue or a specific policy decision. The specific focus of the research paper will be determined by the instructor. The paper is to be analytical and not solely narrative or speculative. As a minimum, the final research paper should:

1. Contain a clear problem statement;
2. Identify key actors (e.g. proponents and opponents) and their positions;
3. Provide an outline of the alternatives and consequences of the policy issue/decision;
4. Contain an assessment of decisions made; and,
5. Assess critically the degree of success in implementing the policy issue or decision.

After initial lectures, the instructor serves primarily as a discussion leader and resource person. Depending on appropriateness and availability of resources, films, guest speakers, simulations, case studies and field trips may be used to complement instruction.

Evaluation:

Performance evaluation of seminar participants shall be based on the quality of (a) written assignments; (b) weekly presentations summarizing reviews of

selected or assigned literature; and, (c) the comprehensive research paper and its defense during the final seminar session.

Evaluation criteria for assessing written assignments include (a) the quality of research design; (b) writing; (c) organization; and, (d) presentation/defense of research papers. A final factor used in assessing performance is the quality of each person's participation in seminar discussions.

Course Content

Session 1. Introduction of Public Management and Emergency Management

Readings: Rossi, et al.:	Chapter 1:	Policy, Politics and Natural Hazards
	Chapter 2:	The Study Design
Petak and Atkisson:	Chapter 1:	Anticipating the Unexpected and Public Policy Problems
	Chapter 2:	Natural Hazards Characteristics and Mitigation

Film: Countdown to Disaster

Assignment: Using the bibliography provided or other recommended readings, describe the various approaches the authors you select have taken in describing emergency management policy or identify a major policy issue in emergency management using the bibliography as a point of departure. In examining these issues discuss (1) history of the issue; (2) who is affected; (3) what existing policy is relevant and what alternatives are taken; and (4) what tradeoffs are reflected in the policies made and what assumptions about the premises are made, such as what is the "proper role of government."

Write a brief paper and be prepared to defend and discuss significant findings at the next scheduled seminar session.

Session 2. Setting Priorities, Perceptions and Approaches to Emergency Management

Readings: Rossi, et al.:	Chapter 3:	How Important are Hazard Problems
	Chapter 4:	Elite Support Levels for Federal Disaster Policy Alternatives

Petak and Atkisson: Chapter 3: Public Policy Approaches to Management of Hazards

General Accounting Office: "Federal Disaster Assistance: What Should the Policy Be?"

Film: The National Emergency Training Center

Assignment: Select an emergency plan that exists in your community or another community and describe its format, content, alternatives and management strategies. How successful do you think its management strategies are and how is it integrated with other levels of government?

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 3. Risk Assessment and Public Reaction

Readings: Rossi, et al.: Chapter 5: Popular Assessments of Hazard Policy: The Case of California's Nine Communities

Petak and Atkisson: Chapter 4: Methodologies for Hazard Analysis

Haas, Kates and Bowen: Chapter 2: Policy Issues Influencing Reconstruction

Film: The Case of Love Canal and FEMA

Assignment: Review the literature and write a paper on what the public reaction is to planning for emergencies, responding to emergencies and opinions about emergency plans.

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 4. Economic Considerations in Emergency Management

Readings: Rossi, et al.: Chapter 6: Elite Appraisal of the National Flood Insurance Act of 1968. (State vs. Local Interests)

Petak and Atkisson: Chapter 5: Hazard Exposure and Loss Analysis--Cost Escalations in Catastrophic Losses

Chapter 6: Hazard Mitigation Costs and Impacts (Loss Reduction Analysis, Cost Analysis, Economic Payoffs)

General Accounting Office: "National Flood Insurance, 1982"

General Accounting Office: "National Flood Insurance, 1983"

General Accounting Office: "Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effectiveness, 1982"

Assignment: Option 1: Write a paper outlining the costs of emergency management or loss analysis and describe the methodology of arriving at your calculations.

Option 2: Review the operations of the Federal Insurance Administration (National Flood Insurance Act of 1968) and the economic impact it has on communities experiencing an emergency. One of the issues you may want to address is should an entire county or region be declared a disaster area because one part of it suffers some type of loss? What implications does this have on the federal and state governments? What impact does this have on the future of federal matching funds or state-local contribution for sharing the costs of reconstruction?

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 5. Economics of Disaster and Cost Recovery

Readings: Dacy and Kunreuther: Economics of Natural Disasters: Implications for Federal Policy

Petak and Atkisson: Chapter 7: Catastrophic Hazard Occurrences

Film: The Killing Ground

Assignment: With the assistance of your instructor, review the cost consequences of a major disaster and apply the use of national flood insurance as an example. Describe how the program works, and how it could be improved.

Session 6. Interest Groups Impact on Management and State-Local Legislative Policies

Readings: Rossi, et al.: Chapter 7: Patterns of Interest and Power in Nonstructural Hazard Mitigation Politics in Local Communities
Chapter 8: Patterns of Group Activity and Power in State Hazard Mitigation Legislation

Petak and Atkisson: Chapter 8: Policy Makers, Stakeholders, and Candidate Policy Problems

Assignment: Identify the key interest groups in your community that have been, or are likely to be key participants(s) in policy making in emergency management or responders to emergencies that may take place in your community. You may wish to select a community emergency response plan and review it along with whom the key participants were in its development and application.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 7. Legal Aspects of Emergency Management and Constraints in Management Policy

Readings: Petak and Atkisson: Chapter 9: Constraints on Public Management

Margerum: All: Will Local Government Be Liable for Earthquake Losses?

Recommended: Griggs and
Gilchrist: Chapter 14: Environmental Law and
Impact Analysis

Williams: American Planning Law

Assignment: Review case litigation (and cost consequences if available) of government entities and individual policy makers impacted by lawsuits over the handling of an emergency. You may want to use a case format for presentation of the title and citation and year, facts or background, legal questions(s), court decision or holding, opinion of the court and summary comment. Select at least four cases. Be prepared to discuss the policy consequences during the presentation.

Session 8. Management Alternatives and Policy Alternatives

Readings: Petak and Atkisson: Chapter 10: Policy Alternatives

Assignment: Dividing the members in the seminar, each two or group select a case or review a policy alternative at the (1) federal, (2) state, (3) local government, or (4) private sector as to handling of emergencies and options.

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 9. Reconstruction Management

Readings: Haas, Kates and
Bowen: Chapter 1: The Pace of Reconstruction
Chapter 2: Issues in Reconstruction
Chapter 3: Re-establishing Homes and
Jobs
Chapter 5: Alternatives
Chapter 6: Summary and Recommendations

Assignment: Prepare for presentation of final research paper.

Session 10.

Assignment:

Activity:

Presentation of final research papers with findings.

BIBLIOGRAPHY

- Aaronson, S., "The Social Cost of Earthquake Prediction," New Scientist, Vol. 73, 1977, pp. 634-636.
- Abernethy, James J., "Teaching Hazards Mitigation," Journal of Architectural Education, Vol. 33, No. 4, 1980, pp. 43-45.
- Aldrich, Howard E., Organizations and Environments, Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1979, pp. 26-74.
- Alquist, Alfred E., "Government's Response to Risk" in Earthquake Risk: Conference Proceedings, Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 35-38.
- Anderson, D. R., "The National Flood Insurance Program: Problems and Potential," Journal of Risk and Insurance, Vol. 41, 1974 pp. 579-599.
- Association of Bay Area Governments, "Liabilities of Local Government for Earthquake Hazard Reduction," Berkeley, California: 1978.
- Association of Bay Area Governments, "Earthquake Intensity and Related Costs in the San Francisco Bay Area," Berkeley, California: 1980.
- Association of Bay Area Governments, "Legal References on Earthquake Hazards and Local Government Liability," Berkeley, California: 1978.
- Atkisson, Arthur A. and William J. Petak, "Seismic Safety Policies and Practices in U.S. Metropolitan Areas: A Three City Case Study," Working Report No. 80-1373-2, Redondo Beach, California: J. H. Wiggins Co., 1981.
- Baker, Douglas A., "Disasters and Disaster Laws," Ohio Legislative Service Commission Staff Research Report No. 120, Columbus, Ohio: Ohio Legislative Service Commission, 1975.
- Baker, Earl J. and Joe Gordon McPhee, Land Use Management and Regulation in Hazardous Areas, Boulder, Colorado: University of Colorado, 1975.
- Baker, Earl J., "Public Attitudes Toward Hazard Zone Controls," Journal of the American Institute of Planners, Vol. 43, No. 4, 1977, pp. 401-408.

- Baker, Lawrence C., Jr., "Availability and Desirability of Earthquake Insurance," in Earthquake Risk: Conference Proceedings. Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 31-34.
- Bancroft, Charles, "Earthquake: Not If--But When?--and Where?," Journal of Insurance, Vol. 43, 1982, pp. 2-9.
- Baram, Michael S., "Alternatives to Regulation: Managing Risks to Health, Safety and the Environment," Lexington, Massachusetts: Lexington Books, 1981.
- Brown, J. and R. Lind, "An Economic Impact Analysis of the National Flood Insurance Program," Washington, D.C.: Federal Insurance Administration, 1976.
- Buffington, P. G., "Earthquake Insurance in the United States - A Reappraisal," Bulletin of the Seismological Society of America, Vol. 51, 1961, pp. 315-329.
- Dacy, Douglas C. and Howard Kunreuther, The Economics of Natural Disasters: Implications for Federal Policy, New York: Free Press, 1979.
- Eckstein, Harry, "Authority Relations and Governmental Performance: A Theoretical Framework," Princeton University: Center of International Studies, 1968.
- Evans, John G., "Attorney's Guide to Earthquake Liability," Berkeley, California: Association of Bay Area Governments, 1979.
- Federal Emergency Management Agency, "Disaster Operations--A Handbook for Local Governments," (GPC 1-6), Washington, D.C.: (July 1981).
- Federal Emergency Management Agency, "An Assessment of the Consequences and Preparations for a Catastrophic California Earthquake: Findings and Actions Taken," Washington, D.C.: 1981.
- Federal Emergency Management Agency, "Integrated Emergency Management System," a series of issuances, beginning in September, 1983. Available from Office of State and Local Programs and Support at FEMA, Central and Regional Offices.
- Field, Robert I., "Patterns in the Laws on Health Risks," Journal of Policy Analysis and Management, Vol. 1, (Winter 1982), pp. 257-260.
- Florida, Department of Community Affairs, Bureau of Disaster Preparedness, and Florida State University, "Hurricane Hazard Mitigation at the Local Government Level: The Roles of the Building Codes and Other Development Management Strategies," Tallahassee, Florida: 1980.
- Fischhoff, B. et al., "Approaches to Acceptable Risk," Decision Research, A Branch of Perceptronics. Eugene, Ohio: 1980.
- Frame, Hess, Nielsen, "Techniques of Organizational Change," San Diego, California: University Associates, 1982.
- Francaviglia, Richard V., "Xenia Rebuilds: Effects of Pre-disaster Conditioning on Post-Disaster Redevelopment," American Institute of Planners Journal, No. 44, January, 1978.

- Friesma, H. Paul, ed., Aftermath: Community Impacts of Natural Disasters, Beverly Hills, California: Sage Publications, 1979.
- Haas, J. Eugene and Dennis S. Mileti, "Socio-Economic Impact of Earthquake Prediction on Government, Business and Community: Research Findings, Issues, Implications for Organizational Policy," Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1976.
- Haas, J. Eugene, R. W. Kates, and M. Bowden, Reconstruction Following Disaster, Cambridge, Massachusetts: The MIT Press, 1977.
- Hirschberg, Joseph C., Peter Gordon, and William J. Petak, "Natural Hazards: Socio-Economic Impact Assessment Model," Springfield, Virginia: National Technical Information Service (PB-294 681), 1978.
- Hughes, Thomas d., "Risks of Earth Movement and Liability that Results Therefrom," Earthquake Risk: Conference Proceedings, Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 71-76.
- Kartez, Jack D., "Emergency Planning Implications of Local Governments' Responses to Mt. St. Helens," Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1982.
- Kates, R. W., Risk Assessment of Environmental Hazard, Scope Report 8, New York: John Wiley and Sons, 1977.
- Kunreuther, Howard, Recovery from Natural Disasters: Insurance or Federal Aid?, American Enterprise Institute for Public Policy Research, Evaluative Studies, Vol. 12, Washington, D.C.: American Enterprise Institute for Public Policy Research, 1973.
- Kunreuther, Howard, "Societal Decision Making for Low Probability Events: Descriptive and Prescriptive Aspects," Working Paper No. 80-164, Laxenburg, Austria: International Institute for Applied Systems Analysis, 1980.
- Kunreuther, Howard, et al., Disaster Insurance Protection: Public Policy Lessons, New York: Wiley-Interscience Publication, 1978.
- Kunreuther, Howard, and Paul Slovic, "Economics, Psychology and Protective Behavior," American Economic Review, Vol. 68, No. 2, 1978, pp. 64-69.
- Kunreuther, Howard, et al., An Interactive Modeling System for Disaster Policy Analysis, Monograph Series No. 26, Boulder Colorado: Natural Hazards Research and Applications Information Center, University of Colorado, 1978.
- Kusler, Jon, Floodplain Regulations and the Courts 1970-1981, Boulder, Colorado: University of Colorado, Natural Hazards Research and Applications Information Center, 1982.
- J. H. Wiggins Co., "Problems and Issues Associated with Use of Insurance Systems to Mitigate the Impact of Future Earthquake Losses within the United States," Technical Report No. 80-1388-1, Redondo Beach, California: J. H. Wiggins Co., 1980.

- Lagadee, Patrick, Major Technological Risk: An Assessment of Industrial Disasters, New York: Pergamon Press, 1982.
- Lave, L., "Risk, Safety and the Role of Government," in Perspectives on Benefit Risk Decision Making, report of a Colloquium Conducted by the Committee on Public Engineering Policy, Washington, D.C.: National Academy of Engineering, 1971.
- Lester, James P., et al., "Hazardous Wastes, Politics, and Public Policy: A Comparative State Analysis," Western Political Quarterly, Vol. 36 (June 1983), pp. 257-285.
- Lord, W. B., "Water Resources Planning: Conflict Management," Water Spectrum, Vol. 12, No. 3, (Spring 1979).
- Lowrance, William W., Of Acceptable Risk, Los Altos, California: William Kaufman, Inc., 1976.
- Margerum, Terry, "Earthquake Hazards and Local Government Liability: Final Report," Springfield, Virginia: National Technical Information Service, (PB80-116 924), 1979.
- Margerum, Terry, "Will Local Governments Be Liable for Earthquake Losses: What Cities and Counties Should Know About Earthquake Hazards and Local Government Liability," Springfield, Virginia: National Technical Information Service (PB80-157 308), 1979.
- Morentz, J. W., H. C. Russell, and J. A. Kelly, Practical Mitigation: Strategies for Managing Disaster Prevention and Reduction, Rockville, Maryland: Research Alternatives, Inc., 1982.
- National Governors' Association, "Hazard Mitigation: Strategies for Managing Disaster Prevention and Reduction," Washington, D.C.: 1981.
- National Governors' Association, "Comprehensive Emergency Management: A Governor's Guide," Washington, D.C.: National Governors' Association, 1979.
- National Governors' Association, "National Emergency Assistance Programs--A Governor's Guide," Vol. III, Washington, D.C.: National Governors' Association, Center for Policy Research, 1979.
- Olson, Robert A., "The California Seismic Safety Commission, 1975-80: Public Policy and a Practitioner's Observations," in Social and Economic Aspects of Earthquake. Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 275-286.
- Regens, James L., Thomas M. Dietz, and Robert W. Rycroft, "Risk Assessment in the Policy-Making Process: Environmental Health and Safety Protection," in Public Administration Review, Vol. 43, No. 2 (March/April 1983), pp. 137-145.
- Reitherman, Robert, "Insurance Implications of Multi-Hazard Reduction," Washington, D.C.: American Institute of Architecture Research Corporation, 1980.

- Rose, Adam, "Local Government Emergency Management: An Economic Perspective," Natural Hazards Research Paper, Boulder, Colorado: University of Colorado, Institute of Behavioral Science, 1980.
- Rose, Adam, "Mandating Local Government Emergency Services," The Urban Interest, Vol. 2, No. 1, (Spring 1980), pp. 65-73.
- Rossi, Peter H., et al., Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation, New York: Academic Press, 1982.
- Rubin, Claire B., "Natural Disaster Recovery Planning for Local Public Officials," Columbus, Ohio: Washington, D.C.: Academy for Contemporary Problems, or FEMA (MP-85), 1979.
- Rubin, Claire B., "Managing the Recovery from a Natural Disaster," Management Information Service Report, Vol. 14, No. 2, (February 1982) pp. 1-14, Washington, D.C.: International City Management Association, 1982.
- Rubin, Claire B., "Case Studies of Communities Recovering from Natural Disasters: Year II Final Report," Washington, D.C.: George Washington University, (Jan. 1983).
- Rubin, Claire B., "A Selected Bibliography of Natural Disaster Recovery Literature for State and Local Officials," Contemporary Problems, Arlington, Virginia: The Natural Disaster Resource Referral Service, 1983.
- Taylor, Alan J., "Assessment of Victim Needs," Disasters, Vol. 3, No. 1, 1979, pp. 24-31.
- Texas, Department of Public Safety, Emergency Services, "Manual for Local Government Operations," 1984.
- Torry, William I., "Disasters, Societal Risks and Interorganizational Stresses," Berkeley, California: University of California, 1978.
- U.S. General Accounting Office; "Federal Disaster Assistance: What Should the Policy Be?" (PAD-80-39), Gaithersburg, Maryland: 1980.
- U.S. General Accounting Office, Report of the Comptroller General, "States Can Be Better Prepared to Respond to Disasters," Gaithersburg, Maryland: 1980.
- Whyte, Anne V., and Ian Burton, eds., Environmental Risk Assessment, SCOPE Report No. 15, Chichester, England: John Wiley and Sons, 1980.
- Wiggins, John H., "Balanced Risk Analysis," Journal of Architectural Education, Vol. 33, No. 4, 1980, pp. 6-8.
- Woodward-Clyde Consultants, "Assessment of Public Policy Regarding Lifelines and Critical Facilities in California," San Francisco, California: 1980.
- Worthley, John A., and Richard Torkelson, "Managing the Toxic Waste Problem: Lessons from the Love Canal," Administration and Society, Vol. 13, (August 1981), pp. 145-160.

Wright, James D., et al., After the Clean-up: Long-Range Effects of Natural Disasters, Contemporary Evaluation Research, Vol. 2, Beverly Hills, California: Sage Publications, Inc., 1979.

Zelenkov, Branko, "Financing the Losses and the Risk Due to Earthquake," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 565-572.

LIST OF EXPERIENCED FACULTY

1. Earl Jay Baker
Department of Geography
Florida State University
Tallahassee, Florida 32306
(904) 644-1865
2. John Baldwin
Director of Environmental Studies
Teaches Environmental Risk Assessment
and Planning and Management
University of Oregon
156 Hendricks
Eugene, Oregon 97403
(503) 686-3895
3. Sue Blanshon
Wittenburg University
Springfield, Ohio 45501
4. Thomas Drabek
Department of Sociology
University of Denver
Denver, Colorado 80208
(303) 753-3278 - work
(303) 771-6889 - home
5. Russell Dynes
Department of Sociology
University of Delaware

(302) 238-2581
6. Charles Faupel
Department of Sociology
6090 Haley Center
Auburn University
Auburn, Alabama 36849
(205) 825-5049
7. Thomas Forrest
Department of Sociology
University of North Carolina
Greensboro, North Carolina 27412
8. Eve Grunfest
Department of Sociology
University of Colorado
Colorado Springs, Colorado 80901
(303) 593-3000

9. Spenser W. Havlick
College of Design and Planning
University of Colorado
Campus Box 314
Boulder, Colorado 80309
(303) 492-6936
10. W. Bartley Hildreth
Kent State University
Kent, Ohio 44242
(216) 672-2121
(216) 678-1227 - home
(216) 672-2091 - College of Business
11. Garry Holtzclaw
University of Houston, Clear Lake City
Houston, Texas 77058
(713) 488-7170 Director's Office
12. Robert Kates
Clark University
950 Main Street
Worcester, Massachusetts 01610
13. Thomas S. Kilijanek, Ph.D.
Vice President
OMNI Research and Training
Denver Federal Center, Bldg. 710
Denver, Colorado 80225
(303) 234-2582
14. Rudolph C. Koller, Jr.
Professor
Graduate School of Public Administration
Golden Gate University
536 Mission Street
San Francisco, California 94105
(415) 974-6718
15. Gary Kreps
Department of Sociology
College of William and Mary
Morton Hall #223
Williamsburg, Virginia 23185
(804) 253-4340

16. Howard Kunreuther
Department of Decision Sciences
The Wharton School
University of Pennsylvania
Philadelphia, Pennsylvania 19104
(215) 898-4589
17. Henry W. Lambright
Syracuse University
Syracuse Research Corporation
Merrill Lane
Syracuse, New York 13210
(315) 425-5100 ext. 369
18. Peter May
Department of Political Science, DP-30
University of Washington
Seattle, Washington 98195
(206) 543-9842
19. Dr. Thomas McKone
Department of Environmental Science
and Engineering
55320 Boelter Hall,
University of California
Los Angeles, California 90024
20. Dennis Mileti
Colorado State University
Ft. Collins, Colorado 80523
(303) 491-1101
21. William Mitchell
Air Force Academy
Colorado Springs, Colorado 80840
22. James Morentz
Research Alternatives
705 New Mark Esplanade
Rockville, Maryland 20850
(301) 492-6818
23. Alvin Mushkatel
Hazard Research Center
Center for Public Affairs
Arizona State University
Tempe, Arizona 85287
(602) 965-1036

24. Joanne M. Nigg
Department of Sociology
Arizona State University
Tempe, Arizona 85287
(602) 965-4505
25. Douglas C. Nilson
Arizona State University
Public Administration
101 Mill Creek Highway
Mentone, California 92359
(714) 794-1946
26. Richard Olson
Hazards Research Center
Center for Public Affairs
Arizona State University
Tempe, Arizona 85287
(602) 965-1036
27. Risa Palum
Department of Geography
University of Colorado
Boulder, Colorado
28. Dr. Richard (Dick) Peerine
Department of Environmental Science
and Engineering
55320 Boelter Hall
University of California
Los Angeles, California 90024
29. Ron Perry
Hazards Research Center
Center for Public Affairs
Arizona State University
Tempe, Arizona 85287
(602) 965-1036
30. William J. Petak
University of Southern California
School of Public Administration
University Park
Los Angeles, California 90007

31. David PiJawka
Hazard Research Center
Center for Public Affairs
Arizona State University
Tempe, Arizona 85287
(602) 965-1036
32. Rutherford Platt
Department of Geology and Geography
University of Massachusetts
Amherst, Massachusetts 01003
33. E. L. Quarantelli
Disaster Research Center
The Ohio State University
Columbus, Ohio 43210
(614) 422-5916
34. Peter Rossi
Department of Sociology
University of Massachusetts
Amherst, Massachusetts 01003
(413) 545-3416
35. Claire B. Rubin
Director, National Disaster Research Center
Program of Policy Studies in Science and Technology
The George Washington University
Gehman Library #714
Washington, DC 20052
36. Dean Runyan
University of Oregon
Eugene, Oregon 97403
(503) 686-3635
37. Robert A. Stallings
University of Southern California
374 East Greenhaven St.
Covina, California 91722
(213) 331-0280
38. Richard Syles
Department of Political Science
University of Delaware
Newark, Delaware 19711
(302) 738-2355

Ralph Turner
UCLA
Behavioral Science
405 Hilgard Avenue
Los Angeles, California 90024
(213) 825-4321

E. Webber-Burden
Department of Sociology
University of Massachusetts
Amherst, Massachusetts 01003
(413) 545-3416

Dennis Wenger
Department of Sociology
University of Delaware
(302) 738-2495

Gilbert White
University of Colorado
Colorado Springs, Colorado 80901

Jim Wright
Department of Sociology
University of Massachusetts
Amherst, Massachusetts 01003
(413) 545-3416

Robert K. Yin
COSMOS Corporation
1730 K Street, NW, Suite 1302
Washington, DC 20006
(202) 296-6595