

BOOK REVIEW

Methods of Disaster Research. Robert A. Stallings (ed). USA: Xlibris Corporation. 2002. 524 pp.\$36.99 (cloth); \$26.99 (paperback). ISBN: 1-4010-7971-7 (Hardcover). 1-4010-7971-9 (Softcover).

William L. Waugh, Jr.

Andrew Young School of Policy Studies
Georgia State University
Atlanta, GA 30303
USA
padwlw@langate.gsu.edu

It was with some trepidation that I offered to review this book. As a recovering methodologist I feared that a volume on disaster research methods might involve esoteric applications of mathematical modeling or long discussions of nonparametric statistical analysis. It was with some relief that I found the volume focused on the aspects of disaster research that differ from those of social science research on other topics, as well as many aspects that are similar or the same. The fact that the volume also contains considerable history about disaster research itself provided further relief. Frankly, as political scientist, I was not familiar with the early sociological work on disasters and only vaguely familiar with the history of the Disaster Research Center and the other centers of hazards research in the US. The early disaster studies in political science largely focused on the impact of hurricanes and other weather phenomena on municipal elections or the impact of war on civilian populations. This volume has broadened my education in the field of disaster studies.

Robert Stallings begins in Chapter 1 with a discussion of the unique aspects of disaster research. He describes some of the seminal work on disasters from the 1950s on and identifies some of the central issues in disaster research, namely the early role of the disaster researcher in representing the viewpoints of disaster managers. Field research in disaster zones does not afford researchers the luxury of detachment when they may literally be up to their armpits in the subject matter. Nonetheless, as he points out, critical eyes and minds are essential if lessons are to be gleaned from the situations. While the argument is little different

from those of other social science researchers who have done field research in war zones, ghettos, and similar locales, those new to disaster field research should be reminded that they will likely be immersed in the chaos.

Chapter 2 is a preface by Lewis M. Killian to his 1956 report on the methodological problems of field research and Chapter 3 is a reprint of the report itself. The report was chosen as both a historical reference point in disaster research and as evidence that many of the same research problems still exist today. Killian describes the transition in methodology as disaster researchers, like other social scientists, began to use quantitative methods in addition to interviews, analyses of after-action reports and other documents, and direct observation. He discusses problems associated with research design, selection of subjects, data collection, interviewing, and simply getting to and gaining access to the sites. Many aspects of disaster field research have not changed over the last four or five decades, although a few, like access, may be getting even more difficult for researchers as some of the later chapters suggest.

Chapter 4 by E.L. Quarantelli outlines the history of the Disaster Research Center (DRC) and the focus it provided for early disaster research. He describes the transition from single case studies to generalizable research findings. The chapter provides a practical guide, informed by decades of DRC experience, for getting into the field, getting to the center of the action (i.e., the EOC), and conducting high quality social science research. He emphasizes the need to focus on group behavior, rather than to be overly attentive to individual roles, and the importance of being on-site as soon as possible, before the situation stabilizes and while the impressions of the participants are fresh.

In Chapter 5, Thomas Drabek, one of Quarantelli's students in the early 1960s, focuses on the opportunities that disaster research provides for social science analysis. For Drabek, disaster research offered opportunities to test sociological theory, develop practical lessons for practitioners, and conduct analyses for academic and practitioner audiences and he has not regretted his decision to focus on disasters. Reviewing data gathered at his first disaster, an explosion at the Indiana State Fairgrounds where 81 people had been killed, Drabek describes his realization of the need to help improve disaster response. Perhaps more important for new disaster researchers, he traces the evolution of his own research agenda from that Indiana study to the present. In many respects, Drabek's career provides a model for young disaster researchers. For me, the discussion of methodology and the expectations that produced the classic *The Professional Emergency Manager*

(1991) was illuminating. That study is a major reference point in my public administration classes on emergency management.

In Chapter 6, Linda Bourque, Kimberley Shoaf, and Loc H. Nguyen discuss the evolution of survey methods from face-to-face interviewing in the 1970s to the use of random digit dialing and now computer-assisted telephone interviewing systems. To illustrate survey methods, they provide examples drawn from surveys conducted after the Whittier Narrows earthquake of 1987, the Loma Prieta earthquake of 1989, and Northridge earthquake in 1994. The evolution of sampling techniques, survey instruments, and analytical techniques, as well as the findings from the surveys, provides a roadmap for researchers trying to get the most out of survey data.

In Chapter 7, Brenda Phillips discusses the particular utility of qualitative research methods in disaster study. She traces the use of qualitative research methods in historical case studies through the 1960s and 1970s when quantitative methodologies were considered the only “real” scientific methods to the present where there has been a resurgence of interest in non-quantitative methods. Phillips argues that qualitative methods can provide insightful and rigorous analyses if done well and suggests ways that that researchers can design their studies and write their analyses to enhance their credibility and the usefulness of their findings to multiple audiences. The arguments are familiar to many social scientists that do research for both practitioner and academic audiences and should be read by new researchers who may be tempted to write for only the academic audience.

Chapter 8 by Anthony M.J. Yezer discusses the impact of hazards information on local economic development, the impact of insurance on mitigation and post-disaster assistance, and empirical models of the economic impact of disasters. He points out that there are some serious issues that economic analyses can address, beginning with the effectiveness of mitigation efforts and insurance. He concludes that economists have been too focused on the impact of disasters on firms and too little concerned about the impact on households.

Walter Peacock’s discussion of the problems of cross-national and comparative research in Chapter 9 was all too familiar. As a comparativist by training, I have struggled with the cultural and developmental differences and data issues that complicate cross-national studies. I’ve also been somewhat amused by the lack of understanding of such differences when colleagues have attempted comparisons of communities in the U.S. assuming consistency in values and comparability of data. Cross-national studies can be “slippery,” as Peacock notes, but com-

parative research offers insights that may be missed by investigators who are on too familiar terrain. In Chapter 10, Marco Lombardi discusses mass media roles in risk communication and how the media interpret and respond to disasters. He suggests a variety of approaches, including media roles in agenda setting, problem diffusion, and public opinion formulation and the media's internal organization and values. He goes on to recommend that researchers examine problem setting, news coverage, narrative style, and communication roles.

Joseph Scanlon, in Chapter 11, provides insight on research on historical events as he describes his own investigation of the 1917 explosion of a munitions ship in Halifax harbor. Eighty some years after the disaster, new accounts of the disaster have been uncovered and new perspectives have been revealed. From newspapers, archives and libraries, official records, memories of those present, families and friends, and other sources, he reconstructs the 1917 disaster and finds lessons for future disaster. Scanlon's excitement about the investigation is evident as he finds sufficient new evidence to question earlier analyses and finds new lessons for current emergency managers in the response to the explosion.

In Chapter 12, Wolf Dombrowsky discusses methodological changes brought on by the electronic media and globalization of data collection. In contrast to the exploration of dusty archives and interviews with elderly witnesses in the previous chapter, Dombrowsky describes the evolution of computer technologies and their impact upon disaster research. The discussion runs from the introduction to PCs and the impact of SPSS on data analysis to new methods of spatial data analysis and multimedia presentations of disaster information. Most importantly, he addresses the problems of dealing with overwhelming amounts of disaster data from the web that may or may not be accurate or reliable and using data ethically when people have different orientations toward information. The Internet can be used effectively to inform and mobilize the public, rather than simply "as a typewriter," according to Dombrowsky.

Nicole Dash discusses the uses of geographic information systems in Chapter 13. The first major use of GIS was in the response to Hurricane Andrew in 1992 for debris management, tracking damage, and locating temporary housing. She suggests that GIS can be used to greater effect as a decision making tool to aid response and recovery, a test for survey representativeness, a means of identifying the social distribution of disaster effects, and as a tool for vulnerability analysis.

In Chapter 14, Habibul Haque Khondker discusses the obstacles to disaster research in the developing world where crises may be routine.

He identifies some of the major problems that may plague field researchers in the developing world, including gaining access to remote sites and dealing with authorities that may have no data or no data they wish to share. He draws examples from research on river flooding in Bangladesh in the early 1990s and concludes that, despite the obstacles, it is important to draw lessons from such disasters. In the flooding example, the impact on poor women was important to document and would have been missed had researchers not been there to gather data.

In Chapter 15, Katheen Tierney examines the changes that have occurred in the field over the past fifty years with a particular focus on changes in the nature of field research. Her topics include the effects of increased regulation of research on human subjects, the exposure of researchers to litigation, the changing perspectives of agencies on research, the literal swarms of researchers at some disasters, the impact of diversity in research teams and among their subjects, and the professionalization of the field of emergency management itself. She relates her own experiences as a young researcher in the field and concludes that, while many things have changed, there are still organizational and cultural obstacles for disaster researchers to overcome, particularly female researchers. She goes on to point out that researchers need to develop credibility and earn trust in order for emergency managers and other officials to permit them access to EOCs and disaster sites. Fortunately, the professionalization of emergency managers means that they are more likely to understand the value of research to their work and, therefore, more likely to provide entry when researchers have earned their trust.

Ollie Davidson offers a practitioner viewpoint on the future in Chapter 16. He points out the new private sector focus in the field because of potential losses to firms and other economic interests, the prospect for the development of a market for mitigation, increased pressures for public-private collaboration, the need for an "all-hazards" approach aided by information technology, and the need for more attention to business needs, including insurance to reduce the impact of losses.

Finally, David Butler's selection of Internet resources is very useful. Like his compilations for the Natural Hazards Center publications, this annotated list contains a valuable selection of the major websites that researchers will find helpful.

This volume contains a wealth of experience in disaster research. Readers will find some chapters more useful than others. I expect to see dog-eared copies of the book in the hands of young researchers who are beginning field research. I also expect to see copies in the hands of

doctoral students who need to understand the methodologies and the history of disaster research. This volume reaffirms the need for high quality social science research that can inform policy and practice, help reduce loss of life and property, and help the public understand the impact of disaster on communities.