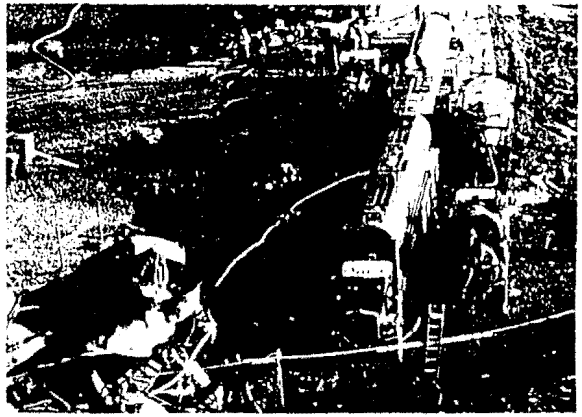
THE PROFESSIONAL EMERGENCY MANAGER

Thomas E. Drabek



THE PROFESSIONAL EMERGENCY MANAGER:

Structures and Strategies for Success

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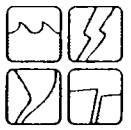

Program on Environment and Behavior
Monograph #44

Institute of Behavioral Science
University of Colorado
1987

Prepared with the Support of the
National Science Foundation
Division of Civil and Environmental Engineering
Washington, D.C. 20550
NSF Grant Number CEE-8206065

Library of Congress
Catalog Card No. 87-051155

PREFACE

In 1969, Hurricane Camille broke the windspeed indicator in Pass Christian, Mississippi at 214 mph, but in nearby Gulfport, Civil Defense Director Wade Guice didn't need to take an exact measure of the hurricane's fury to know his problems were only beginning. His community lay in shambles around him.

A year later, Corpus Christi City Manager Marvin Townsend braced as Hurricane Celia ripped across Padre Island and crashed into the heart of his south Texas City, leaving death and widespread devastation in its wake.

The following year, dentist Jim Granbury was celebrating his first full week in political office as the new Mayor of Lubbock, Texas, when the warm, humid quiet was changed to the sounds of a blast furnace as tornadoes tore a mile-wide path through the center of town. Automobiles and telephone poles tumbled through the air like leaves in an autumn breeze, and people were dying.

Each of these local government managers entered into the world of major disasters with little or no warning, formal training, or experience in solving the seemingly insurmountable problems associated with such large natural phenomena. Yet all three were highly successful in leading their cities through the response and recovery phases of those disasters, and into ongoing preparedness phases which have increased their levels of emergency management capabilities.

Frequently, the postdisaster story is less happy--and much less successful--in many cities and towns. Why? In what way were the three abovementioned cities, and the three managers, "different"?

The delineation of "Emergency Management" as a separate and specific body of knowledge within the field of Public Administration is a fairly recent innovation, finally codifying the exact "science" of managing disasters and emergencies. This project by Thomas Drabek is a benchmark effort in that regard. Drabek has chosen to wade deeply into the hazy waters of the **subjectives** of success. Further, he has emerged with a cogent and coherent academic description of what those of us who work in emergency management have known intuitively for years: successful emergency managers are different--not in **what** they think, but rather in **how** they think.

In this project, Drabek identifies and documents successful "coping strategies" for emergency managers who daily contend with the environmental uncertainties attached to both function (dealing with sudden disasters) and organization (the bewildering array of agencies and entities at local, state and federal levels and associations of governmental and nongovernmental officials). He also outlines several key differences in their application for urban vs. rural settings. He further suggests that the most successful of emergency managers use a larger number of those strategies, often concurrently.

But more importantly, throughout the project run two nearly continuous, but elusive threads of "successful emergency management", clearly traced and articulated for the first time. They even form the subtitle of this volume: "**Structure and Strategy**". Indeed, it was structure and strategy which "made the difference" for Gulfport, Corpus Christi and Lubbock.

Strategy becomes a key to success not only in terms of the individual "coping strategies" identified by Drabek, but also in the realization that emergency management itself is a strategic rather than

tactical subject. "The difference" lies more in concept than in procedure, as Drabek infers that emergency management is a misnomer. We don't manage emergencies; at best, we prepare for them and/or respond to them. Successful emergency managers are actually successful **problem-solvers**, capable of reacting quickly to rapidly changing problems and scenarios with a large and varied bag of tools ("coping strategies") in an environment of compressed time and limited resources.

Structure is a closely related success key in that people and organization are the vehicles through which successful emergency managers get things done. Thus, the process often becomes more important than the product. Drabek, for instance, cites planning as a domain for several key "coping strategies" and vividly brings home the point that it is the planning process, as well as the inter-organizational relationships inherent in that process, rather than the plan itself, which can make "the difference" for emergency managers.

For those everywhere who have dedicated themselves to the protection of our citizens and their property from disasters and emergencies, and who often feel like they are "flying by the seats of their pants", this project will have a most comforting, even confirmatory ring to it. For that alone, emergency managers as a profession will long remain grateful to Thomas Drabek and the National Science Foundation for this remarkable work.

Bruce Marshall*
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1987

*Any opinions, findings, conclusions, or recommendations expressed in this statement are those of the author and do not necessarily reflect the views of the Federal Emergency Management Agency.

ACKNOWLEDGMENTS

I want to thank the National Science Foundation for making this research possible. The grant it awarded was administered ably by William A. Anderson, who provided continued support, advice, and professional wisdom. Not unlike those on whom this study was focused--people working behind the scenes--Anderson has nurtured a fragile community of scholars so as to greatly improve the quality of hazard and disaster research.

Throughout the project, Ruth Ann Drabek worked as my partner. Aside from handling all of the administrative and secretarial chores, including all word processing of both the research instruments and this monograph, she was the intermediary between my concepts and yellow writing tablets and the computer. She transcribed all interviews, coded and input all data, and ran the data analyses. Additionally, her casual inquiries frequently caused me to rethink various decisions, thereby improving both the rigor of method and precision of reporting. To her I say, "Thanks for joining me in this venture and the joy it brought."

Ten individuals accepted my invitation to serve on the project Advisory Committee. Each brought different skills and forms of expertise. All assisted in important ways, helping me both conceptually and methodologically. Implementing the research design would have been difficult, if not impossible, had it not been for their liaison efforts. Their varied perspectives and perceptive comments aided greatly in transforming the initial draft manuscript. To each of the following I say "Thanks": John (Pat) Byrne, Director, Colorado State Disaster Emergency Services; John Clark, Professor of Sociology, University of Minnesota; David Guille, Director, Laramie County/Cheyenne Civil Defense; James Kerr, Director of Research, Federal Emergency Management Agency (formerly); Myra Lee, Administrator, Oregon Emergency Management Division (formerly director, Multnomah County Office of Emergency Management); Bruce Marshall, Chief, Technical Program Division, Emergency Management Institute, Federal Emergency Management Agency; Roy S. Popkin, Deputy Director, Disaster Services, American Red Cross (formerly); E. L. Quarantelli, Director, Disaster Research Center, University of Delaware; John Swanson, Chief, Disaster Assistance Programs, Region VIII, Federal Emergency Management Agency; and Graham Watt, Principal Associate, Graham Watt and Associates, Fort Lauderdale, Florida.

Final editing was done by Sarah Nathe of the Natural Hazards Research and Applications Information Center, the University of Colorado. I am most appreciative of her ability and thoroughness, as well as the continued support and inspiration provided by those who maintain that research oasis, especially Gilbert F. White, William Riebsame, and Susan Tubbesing.

Finally, I want to express special thanks to the 12 individuals who willingly endured a lengthy interview and arranged for my contacts with others in their communities. I also want to acknowledge and thank the 50 local directors who participated in the telephone interviews. It is to professionals like these that this work is dedicated.

Thomas E. Drabek

1987

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EXECUTIVE SUMMARY

There is much wisdom within the minds of the men and women who daily carry out the functions of local government. This research project sought to capture and codify some of it especially for those who recently have assumed an emergency management agency directorship. More seasoned directors may encounter little that is new, but it is hoped that the conclusions will have a confirmatory ring to them. This analysis is also intended to assist academics, and other practitioners, to better understand the sources and forms of constraint that confront those in local emergency management. This is not an effort to justify various shortcomings, but rather to shed new light on the structural sources of limitation. Success in local emergency management--like the structures and strategies through which it is attained--affects the level of preparedness of the entire nation.

Objectives

The question examined in this study was, "What are the key managerial structures and strategies used by successful local emergency management agency directors to maintain agency integrity and improve community preparedness?" Agency integrity is reflected in perceptions of agency credibility (positive image and capability), heightened awareness of the need for the agency (mission justification), and an expanded resource base (budget, staff, equipment). This question stimulated three more specific research objectives:

- Identify the key managerial strategies used by successful local emergency management agency directors;
- Document cross-agency linkages patterns;

- Ascertain similarities and differences in strategies used among directors in rural vs. urban organizational environments.

Methods

A nomination process was used to identify 12 local directors (Phase I) whose emergency management programs were perceived to be effective and whose jurisdictions met additional design criteria, e.g., community size, geographical location. The goal was to explore potential differences and similarities among communities of differing sizes, rather than to determine which strategies were used most frequently among all jurisdictions within the nation, most of which are relatively small.

On-site interviews were conducted with each Phase I director and executives in seven types of local contact agencies, e.g., police, fire, elected officials. A multistage randomization procedure was used to select 50 additional directors (Phase II), from whom telephone interviews were requested. Additional data were collected from all interviewees through a questionnaire. Unusually high return rates were obtained, i.e., questionnaire data were obtained from 98% of the Phase II directors, either initially or through telephone follow-ups.

The nomination process used to identify the Phase I directors was validated through a goal attainment measure. That is, these directors had accomplished more of the program-related tasks than the randomly selected Phase II group. Also, information provided through interviews with contact agency personnel offered further confirmation. A small sub-sample of "less successful" directors was established using the goal attainment measure. This permitted three points of comparison for both structures and strategies among communities of different size.

Major Findings

All of the Phase I directors regularly used five of the 15 ke strategies that had been discovered through extensive study o managerial behavior (Pennings, 1981). Thus, they developed constituenc support by actively trying to increase the resource base of other loca agencies (1A). They extended their agency through the use of committee (2) and joint ventures (4) whereby executives in other local agencie were encouraged to buy into the emergency management program. They ar ranged for outside experts (11) to make appearances in a variety of set tings. Finally, they tried to nip in the bud controversial or poter tially threatening issues before they got out of hand (6--agenc control).

Undoubtedly reflecting the less complex organizational environmer in which they operate, Phase I directors in the smallest jurisdictio used six of the strategies less frequently than did their counterpar in larger communities: cooptation (3); coalition formation in publ (5A) and informal settings (5B); mergers (9A); innovation, adoption of microcomputer (12B); and regulation (14). However, Phase I directors smaller communities used all of the strategies far more extensively th did those who were selected randomly (Phase II) from less populat jurisdictions.

Most of the Phase I directors used all but one of the 15 k strategies. They used them more frequently than the Phase II directo who had been selected randomly. The exception was strategy (9A)--pu for mergers. Only two of the 12 Phase I directors indicated that th had pressed officials to relocate the emergency management functi elsewhere in local government. Except for this strategy, Phase

directors reported higher use rates than did a small sub-sample of less successful directors.

In short, these 15 managerial strategies are used by directors of local emergency management agencies. Those who are most successful use them more extensively. The rate of use for most, but not all, however, varies by community size.

Phase I directors functioned within networks that were more integrated than those found elsewhere. The following were among the structural requirements documented for the successful directors.

- Community agencies with disaster related responsibilities and state DES officials were contacted frequently.
- When these contacts were made, persons consulted were near the top.
- Interagency agreements were formalized rather than being left to casual understandings.
- Except for public works departments, whose involvement was lower, two or more joint programs were maintained with each of the other types of local agencies studied by over one-half of the Phase I directors.
- Memberships in other community organizations provided over one-half of the Phase I directors with additional settings wherein they interacted with personnel from four of the eight types of agencies studied.

When the data base was separated according to community size, certain features of these interagency networks varied significantly. Most important among these were the following.

- Directors within mid-sized communities reported slightly higher rates of agency contact for seven of the eight agency types. The exception was elected officials; directors in the smallest communities had the highest rates of contact with them.
- The larger the community, the less frequently the local emergency management director maintained contact with the director of other local agencies aside from one type--state DES offices. Typically, directors in larger communities contacted middle level managers or assigned liaison personnel, whereas those in smaller communities were linked to the agency head.

- As the size of the community increased, the use of formalization increased, except for agreements with elected officials.
- Directors in smaller towns made less extensive use of join programs.
- Overlapping organizational memberships were reported mos frequently by the successful directors in small communities

Conclusions

While their emphases differ, the strategies for coping with en vironmental uncertainties used by local emergency managers parallele those documented for other executives. In an abstract sense, then directing an emergency management agency has many parallels to managin any other type of organization. The strategies used must be consisten with certain characteristics of the community, including its size.

Structural analysis of cross-agency linkage patterns revealed tha the more successful directors participated in structures that were mor integrated. Thus, both the formation and maintenance of interagenc structures are critical for agency effectiveness. Insuring the in tegrity of these invisible webs of social bonding is a key strategy fo success.

Newly appointed local emergency management directors are advise to consider the following approaches to their work:

- Meet and greet agency heads.
- Establish personal credibility and commitment.
- Use your past background.
- Engage in consensus-building activities.
- Seek to coordinate, not control.
- Establish media relationships.
- Continue professional development.

- Establish a professional network.
- Recognize that tenacity is essential.

In addition to these general themes, advice is offered to new directors regarding their dealings with five groups: 1) elected officals, 2) state DES, 3) business community, 4) volunteer organizations, and 5) family members.

While ascertaining the future of emergency management was not the objective of this research project, the data revealed four somewhat interdependent sources of constraint: 1) disaster events; 2) interest group mobilization; 3) policy adjustments; and 4) certain developmental trends that will be continued into the next century, e.g., increased professionalism and clarified organizational domain. The interviews with these 62 directors suggested the following action agenda for the emergency management community:

- Enhance the professionalism of emergency managers.
- Increase a consensus that a distinctive coordinating function comprises the prime mission of local emergency management agencies.
- Accept the structural variation in the location of the emergency management function within local government.
- Expand the use of computer technologies.
- Improve public acceptance.

PART ONE

INTRODUCTION

CHAPTER I

OBJECTIVES, THEORY, AND METHOD

Research Objectives

While "emergency management" encompasses many jobs ranging from building code enforcers to first responders like police or paramedics, this book focuses on a single occupational group--directors of local emergency management agencies. In some communities the agencies are still referred to as civil defense offices; in others these have hyphenated names that reflect new tasks, yet maintain a linkage to a past identity. The tasks performed, the official names, and the structural location within local government vary somewhat as one moves from state to state.

Directors of the local agencies do have their counterparts within state and federal level bureaucracies, but neither of those two situations is directly similar to that of the local emergency manager. The question examined in this study was: "What are the key managerial structures and strategies used by successful local emergency management agency directors to maintain agency integrity and improve community preparedness?" Agency integrity is reflected in perceptions of agency credibility (positive image and capability), heightened awareness of the need for the agency (mission justification), and an expanded resource base (budget, staff, equipment).

This question stimulated three specific research objectives:

1) Identify the key managerial strategies used by successful local emergency management agency directors.

2) Document cross-agency linkage patterns.

3) Ascertain similarities and differences in strategies used among directors in rural vs. urban organizational environments.

This comparative study of a relatively small number of carefully chosen agencies is intended to be especially helpful to those who recently have assumed an emergency management agency directorship. What follows is not a manual or checklist for success; rather, aspects of the experience base of a number of local directors has been codified and interpreted. Those who have struggled to maintain emergency management programs over the years have invaluable knowledge about the process. This study was an attempt to tap into their wisdom so that it might be shared. More seasoned directors may encounter little that is new, but it is hoped that the conclusions will have a confirmatory ring to them.

This analysis is also intended to assist academics and other practitioners to better understand the sources and forms of constraint that confront those in local emergency management. This is not an effort to justify various shortcomings, but rather to bring a new level of understanding of the structural sources of limitation because their success like the structures and strategies through which it is attained, affects the level of preparedness of the entire nation.

Theory

It is critical to understand the assumptions implicit in the theoretical perspective that guided this study. After these have been specified, the framework that directed the data collection and analysis will be outlined.

Key Assumptions

The research objectives were approached theoretically through a "stress-strain" perspective. This refers to an evolving set of ideas that have developed over several years (see Drabek and Haas, 1969; Haas and Drabek, 1973; Drabek and Haas, 1974). They have served as a useful guide for interpreting other aspects of emergency management such as emergent search and rescue networks (Drabek **et al.**, 1981; Drabek, 1983) and mitigation processes (Drabek, Mushkatel, and Kilijanek, 1983). The stress-strain perspective assumes that organizational members are actively involved in an ongoing series of bargaining transactions. While structural features such as size, complexity, or formalization limit the freedom available to members, their behavior reflects continuing evaluations and negotiations. Managers' behaviors are rooted in the desire to protect agency integrity, and proposed changes are all evaluated in terms of potential impacts on agency autonomy, security and prestige.

This does not mean that operating goals are irrelevant, but neither are they totally constraining or stable. Like other aspects of the organizational structure, notions of goal are used as bargaining chips in conflict areas that comprise the behavioral reality of organizational life. In addition to goal and mission statements, however, managers use these three criteria--autonomy, security, and prestige--to assess proposed changes. Collectively, they are the currency of organizational integrity. The bargaining processes which constitute executive life take on a new meaning when one views them from this vantage point.

There are other sources of constraint because the normative structure of all organizations is far more complex than definitions of goal imply. For example, organizational domains (Thompson, 1967) are comprised of expectations that specify tasks, authority, prestige or deference, affect, and sanctions (see Haas and Drabek, 1973, pp. 178-181). Overlaid on this web of constraint are the interpersonal struc-

ture (e.g., friendship patterns) and the resource structure (e.g., radio equipment, agency budget). All three structures of constraint limit the freedom of managers as they act to accept some policies, push for the adoption of others, and resist implementation of many. We lack a calculus for aggregating this complex mix of constraints, yet, the crude analyses completed to date underscore the presence of structured strains which preclude actions satisfying to all parties. Within these networks of strain, however, managers act--at least effective ones do.

Seven key assumptions about managerial behavior are implicit in the stress-strain perspective:

1) Good managers act; they are not passive recipients or robots simply following directives from superordinates.

2) Evaluations of potential actions reflect three criteria--autonomy, security and prestige.

3) Action choices are constrained by three interdependent structures--normative, interpersonal, and resource.

4) Aspects of these constraint structures are inconsistent; thus, in varying degrees all organizational personnel must deal with structured strain.

5) Organizational environments are uncertain.

6) Program opposition is assured; resources are perceived as being limited.

7) Successful managers must have a: (a) high tolerance for ambiguity and conflict; (b) commitment to and vision for agency mission; and (c) belief that they can make a difference.

A Framework for Analysis

Aspects of the stress-strain perspective parallel observations made by others. For example, when Anderson (1969) dissected the horizontal and vertical structures of civil defense agencies, what he found reflected Thompson's (1967) analysis of environmental uncertainty as a

way to understand managerial behavior and organizational change. Anderson (1969) concluded:

> ...civil defense offices tend to be hampered by undue uncertainty with regard to many of their important organizational dimensions such as their authority relations, task domains, internal structures and public support (p.1)....In order to remain viable, organizations must learn to cope with uncertainty. That is, they must establish **strategies** which enable them to reduce instability and indefiniteness in their internal structures and environments....In terms of uncertainty brought in by competition from the environment, organizations may turn to a **strategy of cooperation**, for example, agreement may be reached whereby limited resources are shared by those organizations in need of them and thus making for a stable resource base for all those concerned (p. 5) [emphasis added].

Although Thompson focused primarily on private firms and efforts by managers to implement what he called "the norms of rationality," he offered perceptive analyses of strategies for coping with environmental uncertainty: 1) coalescing actions, e.g., joint ventures; 2) monitoring activity, e.g., surveillance; 3) coopting efforts, e.g., absorption of threatening groups; and 4) contracting, e.g., establishing service agreements. Many of these ideas paralleled the actions documented earlier by Selznick (1949) in his insightful analysis of the adaptations made by personnel associated with the Tennessee Valley Authority.

More recently, other observers of managerial behavior have tried to synthesize the mechanisms by which power flows within and among organizations. Pfeffer (1981), for example, identified six political strategies that had been documented in various studies: 1) selective use of objective criteria (e.g., in budget allocation decisions); 2) the outside expert; 3) controlling the agenda (e.g., "...one of the best and least obtrusive ways of exercising power is to prevent the decision issue from surfacing in the first place"; 4) coalitions; 5) cooptation; and 6) committees (adapted from Pfeffer, 1981, pp. 137-177).

Some theorists, for instance Child (1972), have speculated that there are critical relationships between strategy and structure. This is in sharp contrast to contingency theories of organizations which hold that there is no one best way to organize. These date back to the insightful studies of Lawrence and Lorsch (1969), who compared the structure of effective firms that manufactured cardboard boxes with those in more turbulent environments, like plastics firms. They found that the most effective structure or design within one set of contingencies will not fit the requirements of other situations. In short, organizational structure or form is contingent upon environmental qualities--especially the degree of stability. Certain qualities of the environment, structure, or task preclude the specification of a single optimal design (Gerwin, 1981).

In contrast, Child (1972) argued that contingency theories of organization had overlooked a key variable--strategic choice. Organizations are human creations that are not tightly coupled to environmental forces. Rather, all qualities of environment are filtered, and at times systematically distorted, by organization members who are struggling to maintain the integrity of their respective units. Thus, as Weick (1981) put it, organizational environments do not exist objectively, they are **enacted** selectively. Organizational executives, to some extent at least, choose the environments within which they will operate.

Carrying this possible link between strategy and structure one more step, Miles, Snow, and Pfeffer (1974) proposed four distinct managerial types, each differentiated by a core set of strategies. Pfeffer (1982, pp. 157-162) summarized these as follows:

1. **Domain Defenders**--organizations whose top managers perceive little or no change and uncertainty in the environment and who have little inclination to make anything other than minor adjustments in organizational structure and processes.

2. **Reluctant Reactors**--organizations where top managers perceive some change and uncertainty...but are not likely to make any substantial...adjustments until forced to do so by environmental pressures.

3. **Anxious Analyzers**--organizations where top managers perceive a good deal of change and uncertainty...but wait until competing organizations develop a viable response and then quickly adopt it.

4. **Enthusiastic Prospectors**--organizations whose top managers continually perceive (almost create) change and uncertainty...and who regularly experiment with potential responses to new environmental trends (Pfeffer, 1982, p. 158; adapted from Miles, Snow, and Pfeffer, 1974, p. 257).

Recasting Thompson's formulation slightly and developing many of the implications further, Pennings (1981) provided a scheme that was used in this study to conceptualize and measure managerial strategies. As noted in Figure I-1, Pennings (1981) enumerated 11 strategies that managers use in their efforts to cope with aspects of environmental uncertainty. This study attempted to determine whether any or all of these would be relevant to directors of local emergency management agencies.

As will become clearer as this book unfolds, local emergency management agencies are quite heterogeneous. In most, but certainly not all communities, a disaster preparedness agency can be identified readily. Typically, the prime mission of these units is to enhance coordination, both among local agencies (horizontally) and with state and federal bureaus (vertically) prior to and following disasters. The administrative location of these units within the structure of local governments varies widely, however, and remains in a state of flux.

FIGURE I-1

COPING STRATEGIES FOR ENVIRONMENTAL UNCERTAINTY

Coping Strategies	Forestalling	Forecasting	Absorption
HORIZONTAL MERGER	x		x
VERTICAL MERGER	x		
JOINT VENTURE	x		
INNOVATION	x		
PRODUCT DIFFERENTIATION	x		
REGULATION	x	x	x
OVERLAPPING MEMBERSHIP	x	x	x
ORGANIZATIONAL INTELLIGENCE		x	x
FLOWS OF PERSONNEL		x	x
LISCENSES AND IMITATIONS			x
ANTITRUST SUITS			x

(Pennings, 1981, p. 441)

While many agencies function with relatively high autonomy and visibility, others are nested within law enforcement, fire, or public works departments. In a few locales, disaster preparedness functions are highly decentralized. Thus, maintenance of an emergency operations center may be assigned to one unit, while disaster exercise planning or warning system design may be assigned to another. This variability and temporal flux characterizes emergency management today. In identifying and bounding the units of analysis for this study, this organizational reality had to be confronted and dealt with carefully.

The stress-strain perspective suggested that the relationships among five general factors should be examined: director, agency, and community characteristics, managerial strategies, and qualities of the interorganizational network. With this conceptual scheme as a tool, a global framework was constructed to guide the data collection processes (see Figure I-2). Once this framework for analysis was constructed, the data collection procedures were designed.

Methods

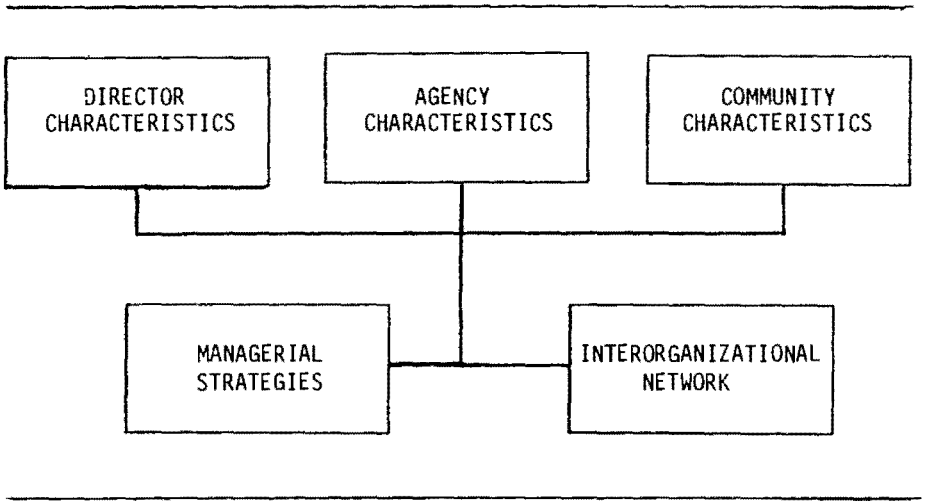
A detailed statement that describes the study methods appears as the Appendix. Commentary here is confined to brief discussion of the advisory committee functions, the site selection criteria, and the data collection procedures.

Project Advisory Committee

Recent research on several aspects of emergency management has documented the significance of advisory committees (see Drabek et al., 1981; Yin and Moore, 1985). Ten individuals were selected to provide a variety of perspectives and liaison assistance. The quality of the data collected was enhanced significantly by their assistance, but they per-

FIGURE I-2

MAJOR THEORETICAL CONCEPTS



formed several other important functions as well: 1) review of all data collection instruments; 2) critique of the field site selection criteria; 3) identification of and liaison with directors whose communities reflected these criteria; 4) review of a draft of this book; and 5) assistance with dissemination of project results.

Site Selection and Data Collection

It was clear that exploration of managerial strategies used by directors of local emergency management agencies could best be accomplished through a series of field studies (Phase I). Given the research objectives, sites were required that varied in population size. Geographic spread and prime hazard type also were obvious criteria that had to be juxtaposed against budget constraints and the total number of sites that could be included. Based on findings from several prior studies (see Leik **et al.**, 1981, pp. 72-73), a mixture of county level and municipal agencies was viewed as essential. Table I-1 presents a summary of these criteria and the characteristics of the 12 sites selected.

At each site, an extensive interview (6-8 hours) was completed with the director. This information was cross-referenced through shorter interviews (one hour) with directors of prime contact agencies. Although the specific agencies varied by site, previous research highlighted the importance of seven functional categories: law enforcement, fire, public works, hospital-medical, elected official, voluntary disaster relief, and a local business firm (see Drabek, 1983a; Caplow, Bahr, and Chadwick, 1984). These "contact" agencies varied according to the organizational structure of the local government. Thus, in cities, the law enforcement agency used was the police department, whereas in

TABLE I-1

FIELD SITE SELECTION
Sampling Matrix

Criterion 2 Size of Constituency	Criterion 1 Geographic Location (FEMA Region)										
	1	2	3	4	5	6	7	8	9	10	Total
500,000-plus				X	X	X			X		4
50,000-499,999			X		X		X			X	4
49,999 or less	X	X						XX			4
Total	1	1	1	1	2	1	1	2	1	1	12

Criterion 3 Sponsorship Base	Criterion 1 Geographic Location (FEMA Region)										
	1	2	3	4	5	6	7	8	9	10	Total
City		X				XX	X				4
County			X								1
Combined city and county	X							X			2
County and several municipalities				X			X		X	X	4
Multi-county agency								X			1
Total	1	1	1	1	0	2	2	2	1	1	12

counties, interviews were conducted with the sheriff's department. These interviews thereby cross-referenced the perceptions of interagency relationships and provided additional information about the strategies used by the local directors.

Given the study objectives and resource limitations, it was decided that all directors in Phase I should be "reasonably successful." After wrestling with a variety of criteria for success, a reputational approach was selected. This procedure makes **no pretense** that the 12 directors chosen are the "most successful" within their respective states, but all **were perceived** by a variety of officials and researchers as having viable and exciting programs. The nomination process, like all of the other procedures used in this study, is described in more detail in the Appendix.

In contrast to the 12 field sites, 50 sites (Phase II) were selected randomly using a multistage technique to insure variability across geographic region, community size, and city-county designation. This technique skewed the sites selected so as to include a greater number of large communities than would have been attained had strict randomization procedures been used. This was appropriate because of the **comparative** thrust of the research objectives--the goal was to explore potential differences and similarities that might exist among the types of strategies used in jurisdictions of differing sizes, rather than to determine which strategies were used most frequently among all directors within the nation, most of whom work within relatively small communities.

Phase II data were collected through telephone interviews. As in the field studies, a short questionnaire was used to secure background data regarding the directors and their agencies. Six instruments were

created: 1) Phase I director interview schedule; 2) Phase I director questionnaire; 3) Phase I contact agency interview schedule; 4) Phase I contact agency questionnaire; 5) Phase II director telephone interview schedule; and 6) Phase II director questionnaire. Due to space constraints, these instruments could not be included in this book; all are available from the author upon request, however.

Table I-2 lists the communities whose directors participated in both Phase I or Phase II. The geographic spread among the sites can be ascertained by noting the FEMA Region numbers included in this table. Table I-3 provides a summary of the complete data set by showing the combined pool of study sites. This table summarizes the distributions for two of the criteria variables: 1) type of sponsorship, i.e., city vs. county; and 2) size of constituency.

As discussed in detail in the Appendix, a series of procedures produced exceptional cooperation. Only one director contacted for Phase I could not participate. This reflected a logistical constraint--he expressed an eagerness to participate if the field work could be completed at a later time. This rescheduling was not feasible. All directors interviewed in Phase I returned their questionnaires. Of the 75 contact agency directors with whom a questionnaire was left, 71 responded (95%). Due to a lack of rapport, a questionnaire was not left with four of the executives who were interviewed. The agencies these 79 represented are listed in Table I-4.

As would be anticipated, the telephone and randomization procedures used in Phase II yielded less cooperation. The procedures developed worked incredibly well, however, when compared to typical return rates in organizational studies which cluster around 25 percent (questionnaire return rates vary from 7% to 59%; Starbuck, 1985, pp. 369-370). Fifty-

TABLE I-2

INTERVIEW SITES: PHASE I AND PHASE II

Phase I Field Site Visits
n = 12

Bannock Co., Idaho (X)*	Los Angeles Co., Calif. (IX)
Cecil Co., Maryland (III)	Milwaukee, Wisconsin (V)
Dallas, Texas (VI)	North Tonawanda, N.Y. (II)
Groton (Town), Connecticut (I)	Peoria, Illinois (V)
James Valley/Davison Co., S.D. (VIII)	Pinellas Co., Florida (IV)
La Plata Co., Colorado (VIII)	Sedgwick Co., Kansas (VII)

Phase II Director Telephone Interviews
n = 50

Albuquerque/Bernalillo Co., N.M. (VI)	Larimer Co., Colorado (VIII)
Anchorage, Alaska (X)	Lincoln County, Nevada (IX)
Atlanta/Fulton Co., Georgia (IV)	Lincoln County, Wisconsin (V)
Bayonne, New Jersey (II)	Lincoln/Lancaster Co., Nebr.(VI)
Bridgeport, Connecticut (I)	Monroe County, New York (II)
Cabell Co., West Virginia (III)	Multnomah County, Oregon (X)
Cochise Co., Arizona (IX)	Nashua, New Hampshire (I)
Cowlitz Co., Washington (X)	New York, New York (II)
Cumberland Co., New Jersey (II)	Oahu, Hawaii (IX)
Cuyahoga Co., Ohio (V)	Oklahoma Co., Oklahoma (VI)
Dade Co., Florida (IV)	Olmsted Co., Minnesota (V)
Daviess Co., Kentucky (IV)	Ouachita Parish, Louisiana (VI)
Delaware Co., Indiana (V)	Philadelphia, Pennsylvania (III)
Denver, Colorado (VIII)	Plattsburg, New York (II)
Detroit, Michigan (V)	Poinsett Co., Arkansas (VI)
Dorchester Co., Maryland (III)	Potawattamie Co., Iowa (VII)
Fairfax Co., Virginia (III)	Providence, Rhode Island (I)
Hamilton Co., Ohio (V)	Salt Lake Co., Utah (VIII)
Haskell Co., Kansas (VII)	Santa Clara Co., California (IX)
Houston/Harris Co., Texas (VI)	St. Louis, Missouri (VII)
Jackson/Hinds Co., Mississippi (IV)	St. Louis Co., Missouri (VII)
Jefferson Co., Tennessee (IV)	Tucson/Pima Co., Arizona (IX)
King Co., Washington (X)	Washington Co., Idaho (X)
Lake Co., Montana (VIII)	Washington Co., Maine (I)
Laramie Co./Cheyenne, Wyoming (VIII)	Wilmington, Delaware (III)

*FEMA Region Number

TABLE I-3
STUDY SITE CHARACTERISTICS

Size of Constituency Served	Type of Sponsorship				
	City	County	Combined City and County*	County Plus Several Cities**	Total
1 million plus	2	3	2	5	12
500,000-999,999	3	1	4	4	12
100,000-499,999	4	1	3	5	13
50,000-99,999	3	2	1	5	11
49,999 or less	2	2	3	7	14
Total	14	9	13	26	62

*Includes integrated city-county governments and emergency management agencies with direct (as opposed to coordination) responsibilities for both city and county governments.

**Includes 1 multi-county agency.

TABLE I-4
PHASE I CONTACT AGENCIES

Law Enforcement

Bannock County Sheriff's Department (Idaho)
Cecil County Sheriff's Department (Maryland)
Clearwater Police Department (Florida)
Dallas Police Department (Texas)
La Plata County Sheriff's Department (Colorado)
Los Angeles County Sheriff's Emergency Operations Bureau (California)
Mitchell Police Department (South Dakota)
North Tonawanda Police Department (New York)
Peoria Public Safety Department (Illinois)
Sedgwick County Sheriff's Department (Kansas)
Town of Groton Police Department (Connecticut)

Fire

Animas Fire District (Colorado)
Cecil County Firemen's Association (Maryland)
Dallas Fire Department (Texas)
Los Angeles County Fire Department Emergency Services (California)
Milwaukee Fire Department (Wisconsin)
Mitchell Fire Department (South Dakota)
North Tonawanda Fire Department (New York)
Old Mystic Fire Department (Connecticut)
Peoria Fire Department (Illinois)
Pocatello Fire Department (Idaho)
St. Petersburg Fire Department (Florida)
Wichita Fire Department (Kansas)

Public Works

Bannock County Highway Department (Idaho)
Cecil County Public Works (Maryland)
Clearwater Department of Public Works and Utilities (Florida)
Davison County Highway Department (South Dakota)
La Plata County Building Inspection Office (Colorado)
Los Angeles County Department of Engineer - Facilities (California)
Milwaukee Department of Public Works (Wisconsin)
North Tonawanda Department of Public Works (New York)
Peoria Department of Public Works (Illinois)
Sedgwick County Public Works (Kansas)
Town of Groton Department of Public Works (Connecticut)

Elected Official

Bannock County Commissioners (Idaho)
Cecil County Commissioners (Maryland)
Dallas City Manager's Office (Texas)
Davison County Commissioners (South Dakota)
Groton Town Manager's Office (Connecticut)

Table I-4 (continued)

La Plata County Commissioners (Colorado)
Milwaukee Common Council (Wisconsin)
North Tonawanda Mayor's Office (New York)
Peoria Mayor's Office (Illinois)
Pinellas County Commissioners (Florida)
Sedgwick County Commissioners (Kansas)

Red Cross

Bannock County Chapter (Idaho)
Dallas Chapter (Texas)
Davison - Hanson Counties Chapter (South Dakota)
Greater Milwaukee Chapter (Wisconsin)
La Plata County Chapter (Colorado)
Los Angeles Chaptèr (California)
Midway Kansas Chapter (Kansas)
Peoria Chapter (Illinois)
South Pinellas County Chapter (Florida)
Southeastern Connecticut Chapter (Connecticut)
Tonawanda Chapter (New York)

Local Business

American Home and Hardware (Maryland)
Atlantic Richfield Company (California)
Balling Construction Company (New York)
Caterpillar Worldwide Security (Illinois)
Dallas Power and Light (Texas)
Department of Utilities - City of Groton (Connecticut)
Honeywell Plant No. 1 (Florida)
Hunter Brothers Ford (Colorado)
Idaho State University - Security Office (Idaho)
Kansas Gas and Electric (Kansas)
Local Attorney - Milwaukee (Wisconsin)
Local Physican - Mitchell (South Dakota)

Hospital-Medical

Dallas-Ft. Worth Hospital Council (Texas)
DeGraff Memorial Hospital (New York)
Lawrence and Memorial Hospitals (Connecticut)
Los Angeles County Health Services (California)
Maria Manor Health Care (Florida)
Mercy Medical Center (Colorado)
Methodist Hospital (South Dakota)
Mobile Medics - St. Francis Trauma Center (Illinois)
Southeastern Idaho Medical Association (Idaho)
St. Joseph Medical Center (Kansas)
Union Hospital of Cecil County (Maryland)

two directors were contacted to obtain the 50 interviews; and 42 (84%) returned completed questionnaires and 7 (14%) agreed to respond over the telephone, netting a 98% return rate.

Preview

Part One is made up of this chapter, Chapter II, which discusses the history of emergency management agencies in the United States, and Chapter III which summarizes several past studies of local emergency management directors.

Part Two is entitled "Structures for Success," and presents data that juxtapose perceptual and behavioral structures of managerial success (Chapters IV and V), qualities of interagency relationships (Chapter VI), and the patterned variations that exist in the structures found in communities of varied size (Chapter VII).

Part Three is entitled "Strategies for Success," and first presents a general summary of the types of managerial strategies described by the directors interviewed (Chapter VIII). These are then divided by city size so as to explore the patterned variations, both similarities and differences (Chapter IX).

The general conclusions of the study are outlined in the final Chapter (X), which makes up Part Four. Fifteen key strategies are discussed, as are the structural requirements for an integrated interagency network. The consequences of societal decentralization are highlighted. Advice for new managers is summarized. Finally, using the data set as a basis for projection, the future of emergency management is described, that is, the major trend lines and clusters of factors that will push it in one direction or another are identified.

CHAPTER II

EMERGENCY MANAGEMENT IN THE UNITED STATES: YESTERDAY AND TODAY

The units of analysis in this study were local emergency management agencies and their directors. Due to a wide variety of historical, philosophical, and intergovernmental factors, however, these types of agencies differ from each other somewhat both in name and mission. This chapter and the following one provide contextual overviews necessary for interpretation of the study findings. Although brief, this chapter outlines the major historical streams of federal policy development that are part of the organizational environment within which local agencies function. The next chapter summarizes the major research studies that have been completed on local emergency management agencies and their personnel.

This chapter has four sections: 1) understanding the temporal phases and levels of the emergency management matrix; 2) historical evolution of civil defense policy and organization; 3) policy approaches to natural and technological hazards; and 4) the creation of the Federal Emergency Management Agency (FEMA) and the implementation of the Integrated Emergency Management System (IEMS).

Understanding the Emergency Management Matrix

Reflecting an observation that dates back at least to the 1930s (Carr, 1932), disaster events have identifiable life histories and developmental cycles. During the 1960s, and especially in the late 1970s, the phases of these life cycles were identified with a standardized nomenclature: preparedness, response, recovery, and mitigation (National Governors' Association, 1979).

Whether life-threatening events result from sudden environmental changes (for instance, hurricanes, volcanoes, tornadoes, earthquakes) or slowly evolving and less direct causes (for instance drought, frost, or expansive soils), human responses are constrained or structured by cultural assumptions and social values (Drabek, 1986, pp. 348-403). These set the limits or ranges of adjustments that are selected by people acting independently or collectively within social systems, be they family members, community officials or national policy makers. From among a host of potential options, relatively few adjustments will be considered and fewer yet will be selected through a process that has been labeled "bounded rationality" (Burton, Kates, and White, 1978, pp. 52, 88). The essence of this concept is that people select protection options that reflect their perceptions of risk--perceptions that often do not conform to scientifically determined assessments (Hohenemser, Kates, and Slovic, 1983). Akin to a small stream meandering across a prairie, people select those paths that they believe will cost the least and require the least amount of effort (Slovic, Kunreuther, and White, 1974; Saarinen, 1982). Typically, their time frames for assessment of risk are limited, e.g., "We have lived here for 20 years and it's never flooded."

In short, disaster events are best viewed within these larger social developmental and perceptual contexts wherein four phases are differentiated but viewed as continuous sequences of adjustment activities. Sub-sets of these within each of these broad processes can be identified, although different writers use alternative terms. Figure II-1 lists several types of activities that may occur within each of the components of the overall disaster life cycle. The collection of these activities constitutes the forms of adjustment or ranges of options that are available for managing any hazard that may precipitate disaster.

FIGURE II-1

DISASTER PHASES AND ILLUSTRATIVE ACTIVITIES

Disaster Phase	Illustrative Activities
Mitigation	Hazard-vulnerability analysis Land-use planning Insurance Building codes Structural mitigations Public education (prevention and adoption of mitigative adjustments) Regulation of Hazardous substances (transportation, storage, and disposal)
Preparedness	Disaster planning Warning systems Stockpiling food and medical supplies Training Public education (self-help)
Response	Evacuation Protective actions Mobilization of emergency personnel and resources Search and rescue Emergency shelter Mass feeding Medical care Security within impact area Damage assessment and control
Recovery	Temporary housing Clean-up, repair and reconstruction Redevelopment loans Legal assistance and liability assessment Victim counseling Community planning

Who should perform these activities? No single answer is necessarily correct. The choices reflect differing political and cultural values. Indeed, cross-cultural comparisons demonstrate the propensity of North Americans to opt for technological fixes (Frazier, 1979). If a river has flooded segments of a community repeatedly, solutions that will appear to be "obvious" to many are to build a dam, reroute the river channel, build protective dikes, or use some other **structural** intervention. Only recently, relatively speaking, have American policy makers been encouraged to consider **nonstructural** approaches to hazard management such as land use management programs or flood insurance schemes (White and Haas, 1975, p. 57).

However, if a dam is to be constructed, who should be expected to pay for it? When homes are built on flood-prone lands, should the cost of insurance be shared broadly or be born entirely by those individual home owners who have chosen to take this risk? Should the same rules apply for insurance protection from tornadic winds, hurricanes, earthquakes, or damages resulting from mudslides or expansive soils?

These questions highlight two fundamental points. First, emergency management consists of a series of adjustments or activities that are inherently **value-based** (Drabek, 1984). To leave a river alone, or to build a dam or other flood protection structure, involves choice. As with all choices, some people may benefit from one action more than others. Similarly, some people may be placed in locations or situations of greater risk--a less tangible cost, but a cost nevertheless. Hence, emergency management is inherently normative--in the broad sense of that term. Choices are involved and these reflect the social values of the choosers.

Second, performance of, payment for, and regulation of the adjustments selected may be completed by varied combinations of public-private sector institutions. Within the public sector, there may be alternative divisions of labor among federal, state and local governments. The choices for these allocations depend on political philosophy and social values. As with all other matters of public policy, the preferred distribution of emergency management functions reflects conceptions of the "proper" roles and responsibilities of federal, state and local governments and private sector institutions (see May, 1985a; and Mushkatel and Weschler, 1985). Figure II-2 displays four examples of FEMA programs that illustrated the pattern of "shared governance" in 1983.

As with the value criteria that lead some to praise and others to lament a new dam, political ideology also causes continuing debates and disagreements regarding the "proper" lines of authority and spheres of responsibility within this private-public sector matrix. These matters will not be resolved in any permanent way within the foreseeable future. Any particular arrangement is best viewed as reflecting a temporary consensus that will not persist for very long. Petak and Atkisson (1982) summarized the situation well.

> Within the United States, legal responsibilities and authorities for dealing with the causes and effects of natural hazard exposures are assigned to a bewildering array of agencies and entities at local, state, and federal levels of government. In addition, important roles in mitigating the potentially adverse effects of natural hazard exposures are played by private insurance companies, leading institutions, and associations of governmental and nongovernmental officials (Petak and Atkisson, 1982, p. 58).

Local emergency management agencies and their directors operate within an environment of uncertainty and instability. Both the unit diversity--name and mission--and the various managerial strategies used by agency directors arise from this situation.

FIGURE II-2

SHARED GOVERNANCE WITH FOUR EMERGENCY MANAGEMENT PROGRAMS

	Flood Plain Management	Dam Safety	Earthquake Preparedness	Crisis Relocation
Mode of Shared Governance	Regulatory	Mobilization	Collaboration	Degenerative collaboration
Mandate	Congress	Executive Order	Congress	Congress
Federal Funding (FY 1983)	$53 million (186 staff years)	$.5 million (5 staff years)	$3.1 million (12 staff years)	$8.7 million (36 staff years)
Intergovernmental Linkages	Regulatory partnership primarily federal-local with state assistance	Owners responsible for safety; states provide oversight	Partnership among federal, state, and local governments	Partnership among federal, state, and local governments

Source: Compiled by author; FY 1983 funding and staffing levels obtained from U.S. House of Representatives, Committee on Appropriations, Subcommittee on HUD - Independent Agencies, Department of Housing and Urban Development - Independent Agencies Appropriations for 1984, Part 5, Federal Emergency Management Agency; 98th Cong., 1st Sess. (Washington, D.C.: U.S. Government Printing Office, 1983).

Adapted from: Peter J. May, "FEMA's Role in Emergency Management: Examining Recent Experience," Public Administration Review 45 (January, 1985), p. 42.

The consequences of these tensions were articulated well by Caplow, Bahr, and Chadwick (1984) following their detailed assessment of the structure of emergency management in 15 communities. Their study will be summarized in detail at the end of the next chapter, but for now, let's note their overall conclusion:

> In the United States, civil preparedness goals are set at the federal level, but the responsibility for implementation devolves upon state and local governments. Not only do the 50 states retain wide autonomy with regard to these matters but thousands of local governments retain autonomy in the implementation of policies and directives emanating from the states. Although these are government programs, they rely upon persuasion rather than coercion to enlist cooperation at all levels down to the individual citizen. This voluntary element generates so much local and regional diversity that it is exceedingly difficult to obtain a panoramic view of the emergency management system as it operates at the grassroots (p. 20).

At the local government level, and to some degree reflecting community expectations of mission, the emergency management agencies that participated in the present study carried the following names:

Cuyahoga County Division of Emergency Assistance and Planning
Haskell County Emergency Preparedness
Providence Emergency Management Agency
Bridgeport Office of Civil Preparedness
Washington County Bureau of Civil Emergency Preparedness
Dorchester County Civil Defense and Disaster Preparedness Agency
Daviess County Disaster Emergency Services-Civil Defense
Poinsett County Office of Emergency Services
Lake County Office of Civil Defense
City of St. Louis Disaster Operations

Most, but certainly not all, of these agencies were funded partially by federal funds that were administered by their state DES office. This linkage established a resource-based dependency relationship. This remains the primary mechanism that laces together the fragmented components of this intergovernmental system. Even for those local agencies that receive funds from the Federal Emergency Management Agency (FEMA),

however, the bond can be neutralized by other social forces. The entire system is a loosely coupled one wherein all of the agencies involved must respond to a wide variety of additional forces within their respective environments.

Table II-1 displays data pertaining to the funding bases and other characteristics of the agencies included in this study. Note that less than one-half (45%) of the agencies received 50% or less of their budget from local government (Phase I - 33%; Phase II - 50%). Also, in comparison to most other local government agencies with disaster response capabilities, emergency management offices are quite small. Many of those studied did not have a single full-time employee (18%); only about a quarter had six or more (23%). Part-time employees worked in nearly one-half (46%) of these agencies, and many (42%) benefited from the regular presence of volunteers.

Although not perfectly correlated, organizational size is associated with other structural features such as horizontal and vertical differentiation, (Blau, 1970; Mileti, Timmer, and Gillespie, 1982). Most (72%) of these agencies had two or fewer levels of supervision (vertical differentiation), although they did reflect more of a horizontal division of labor. Most (54%) had two or more departments or divisions (horizontal differentiation). Finally, as with other bureaus within local government, nearly all were formalized. Many organizational work rules, procedures and policies were written (56%, to a great extent) as were job descriptions (81%, for almost all jobs).

This sampling characterizes the United States scene quite well. Next we will examine this policy matrix within a historical perspective so as to better understand how this situation evolved.

TABLE II-1
AGENCY CHARACTERISTICS

Agency Characteristics	Number of Directors* Phase I	Phase II
Full-time Employees		
None	25(3)	16(8)
1-2	17(2)	37(18)
3-5	25(3)	27(13)
6 or more	33(4)	20(10)
Part-time Employees		
None	42(5)	57(28)
1-2	42(5)	39(19)
3 or more	17(2)	4(2)
Volunteers (work weekly)		
None	25(3)	67(32)
1-2	42(5)	15(7)
3 or more	33(4)	19(9)
% Budget Local Government		
50% or less	33(4)	50(24)
51%-74%	42(5)	29(14)
75% or more	25(3)	21(10)
Number of Levels of Supervision		
1	27(3)	36(14)
2	36(4)	39(15)
3 or more	36(4)	26(10)
Number of Departments or Divisions		
1	36(4)	48(18)
2-3	36(4)	30(11)
4 or more	27(3)	22(8)
Formalization of Work Rules		
Great extent	46(5)	58(25)
Some extent	46(5)	30(13)
Small extent	9(1)	12(5)
Formalization of Job Descriptions		
Almost all jobs	82(9)	80(33)
Many jobs	9(1)	5(2)
Some; few, or no jobs	9(1)	15(6)

*The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

Historical Evolution of Civil Defense Policy*

When it became possible for an enemy to attack civilian and industrial facilities by air, civil emergency preparedness became a salient public policy issue in the United States. Thus, during and following World War I, a limited program was carried out under military sponsorship. Needless to say, salience levels intensified with the onset of World War II. A federal Office of Civil Defense was established by Executive Order in 1941 and then abolished in 1945 at the war's end.

The war experience included industrial mobilization and precipitated the establishment of the National Security Resources Board (NSRB) which reported directly to the President. After the Department of Defense established an Office of Civil Defense Planning (March, 1948), the President, who had decided that a permanent civil defense office was not needed, transferred the responsibility to the NSRB (1949). A later NSRB review of civil defense needs, stimulated in part by the growing concerns about potential uses of nuclear weapons, resulted in the creation of the Federal Civil Defense Administration (FCDA) within the Executive Office of the President (1950). Soon thereafter, this unit was established as an independent federal agency through the enactment of the Federal Civil Defense Act of 1950. The FCDA retained this status until 1958.

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*Portions of this section and the one following draw heavily on an unpublished background paper prepared by a National Academy of Sciences committee I chaired. An initial draft of that material was written by Gary Kreps, who drew upon numerous sources, including a publication that was partially prepared by Haakon Lindjord who served on this NAS committee, (President's Reorganization Project, 1978). Related materials include Blanchard, 1984; Norton, 1979; Garrett, 1979; Norton, 1978; Defense Civil Preparedness Agency, 1975; Mileti, 1975; Office of Emergency Preparedness, 1972; Jordan, 1966; Gessert, Jordan, and Tashjean, 1965. For a critical review of this history, including a summary of the major arguments against civil defense programs, see Kerr, 1983.

During the Korean Conflict, the Office of Defense Mobilization (ODM) was created as a part of the Executive Office of the President. This action, reflecting a need for improved management of the broad economic and production control measures authorized by the Defense Production Act of 1950, made the role of the NSRB unclear. Thus, in 1953 as the nation looked forward to reduced involvement in Korea, the President merged the NSRB and ODM into a new Office of Defense Mobilization and added the responsibility for managing national stockpiles of strategic materials. The Director of the new ODM became a member of the National Security Council. By 1955, the responsibility for coordinating all major federal emergency preparedness programs, except civil defense, had been centralized in ODM.

In summary, from 1953-1958 there were two major agencies of the federal government concerned with civil emergency preparedness: the Office of Defense Mobilization (ODM), and the Federal Civil Defense Administration (FCDA). ODM was concerned mainly with developing mobilization plans to meet conventional war conditions, with gradual attention also being given to the consequences of nuclear attack. It was assumed that various federal agencies would carry out mobilization functions at national and regional levels with ODM serving a coordination role. The FCDA based its civil defense plans on the assumption that, as specified in the Federal Civil Defense Act of 1950, the primary preparedness responsibility for nuclear or other forms of attack rested with states and their political subdivisions, i.e., local governments.

However, duplicate and conflicting functions between these two federal agencies and their respective relations with other governmental units precipitated a major reorganization in 1958 when all major civil emergency preparedness programs at the federal level were consolidated

in a new Office of Civil Defense Mobilization (OCDM). It was located within the Executive Office of the President. During 1958, both the Rockefeller Fund and the RAND Corporation issued reports that supported civil defense and stimulated increased Congressional support (Kerr, 1983, pp. 109-113).

This arrangement, while perhaps mitigating some difficulties, encountered others. Given the large number of federal agencies that had programs related to some aspect of emergency preparedness in the broad sense of the term, this single agency encountered difficulties in developing an integrated nonmilitary defense program that was responsive to the potential threat of both nuclear and conventional war, especially one that would receive adequate financial support from Congress. Thus, in 1961, there was another reorganization: this time most civil defense responsibility was assigned to the Office of Civil Defense (OCD) which was to be administered within the Department of Defense. Some functions were retained, however, by the OCDM and what became its successor organization, the Office of Emergency Planning (OEP), later named the Office of Emergency Preparedness (OEP).

This arrangement yielded various benefits, namely access to Department of Defense resources. But the DOD auspices did not improve the budgetary allocations for civil defense. Furthermore, retention by OEP of only a staff or advisory role substantially reduced its influence over the civil defense program. Also, this organizational arrangement produced duplication of field organizations.

In part reflecting the Cuban missile crisis and increased public concerns about the possibility of enemy attack (see Garrett, 1979; Locke, Locke, and Dean, 1966; Nehnevajsa, 1966), many important civil defense activities were accomplished during the 1960s. For example,

despite its loss of influence, the OEP issued the National Plan for Emergency Preparedness which became an important planning and guidance document for national emergencies at the federal level. In 1964, this agency issued an example state plan for the emergency management of resources and the President approved the concept of an Emergency Office of Defense Resources to manage federal resource programs during a national emergency. Similarly, on the civil defense side, a major fallout shelter survey program was initiated in 1962. The OCD continued the mandated civil defense preparedness assistance programs for state and local governments.

By the early 1970s, specific emphasis was placed by the OCD on peacetime as well as wartime emergencies. The concept of "dual use" gained popularity. "On-site assistance" was emphasized as a preparedness concept, i.e, upgrading local governments' ability to coordinate use of all relevant assets available to a community during any emergency. By 1974, there was an emphasis on crisis relocation planning and contingency planning to evacuate populations from high-risk areas during periods of international tension. OCD was transformed in 1972 to the Defense Civil Preparedness Agency, reporting to the Secretary of Defense. A year later, following a study mandated by the President in 1970 regarding the relationship between civil defense and natural disasters, the OEP was abolished. The Federal Preparedness Agency (FPA) was established in the General Services Administration, and the Federal Disaster Assistance Administration (FDAA) was established in the Department of Housing and Urban Development (HUD). In turn, all three of the major agencies concerned with civil emergency preparedness (FPA, FDAA, DCPA) maintained their own separate regional offices. State and local officials were required to deal with at least three sets of federal officials simultaneously. Of course, state and local programs never reflected comparable organizational complexity or fragmentation. Increased dissatisfaction precipitated another reorganization that created the Federal Emergency Management Agency (FEMA) in 1979. Before turning to that agency, however, we will examine the parallel stream of policy developments directed toward disasters other than war.

Policy Approaches to Natural and Technological Hazards

A Congressional Act passed in 1803 commonly is regarded as the first piece of disaster legislation (Clary, 1985, p. 20). Through it, assistance was provided to Portsmouth, New Hampshire, following an extensive fire. Of course, some individual homeowners may have been protected by fire insurance policies, an adjustment that became popular following the Great Fire of London in 1666. Indeed, the first incorporated insurance company in America, the Philadelphia Contributionship, was organized by Benjamin Franklin in 1752 (see "Fire Insurance," 1972). But other than this form of protection, which pertained to very few of the disasters that affected people during the next century, assistance was provided through ad hoc legislation following various hurricanes, earthquakes, floods, tornadoes, and the like. Congress responded to these events over 100 times with post-disaster legislative action.

During the 1930s--that time of extensive experimentation with federal approaches to matters that heretofore had been defined as individual problems--several policies were implemented. For example, the Reconstruction Finance Corporation was given authority to make disaster loans for repair and reconstruction of certain public facilities, first in 1933 only after earthquakes, and later after other disasters. Similarly, continuous authority to make grants for the repair of

federal-aid highways and bridges damaged by natural causes was granted to the Bureau of Public Roads in 1934. Of more profound impact, however, was the passage of the Flood Control Act two years later. Through it an ambitious series of flood control projects were completed under authority granted to the Army Corps of Engineers.

As these and numerous other agencies provided additional forms of disaster mitigation, response, or recovery assistance, it became apparent that improved coordination was required. Thus, in 1950, Public Law 81-875 codified and expanded this evolving set of disaster relief mechanisms. It reinforced the already existing legislative mandate (P.L. 80-233) for all federal agencies to cooperate in providing disaster assistance, and authorized the President to coordinate in any manner deemed appropriate.

In 1968, a major non-structural mitigation instrument was initiated through passage of the National Flood Insurance Act. Communities could now extend this form of protection to homeowners, and, thereby better regulate future building within flood-prone areas. Although slow at first, "by mid-1982, approximately 2 million policies were in force, with $100 billion in property covered" (Clary, 1985, p. 21). Unfortunately, various analyses of flood plain regulation have indicated mixed results (Platt, 1982; Platt **et al.**, 1980; Burby **et al.**, 1985). Insurance has been sold, but people have not left flood-prone areas. Extensive flood plain invasion has continued. Efforts toward expanded implementation of land use regulation policies through federal "hazard mitigation teams" have magnified the inherent tensions within the intergovernmental system and interest groups espousing alternative value priorities. Some communities have decided that the federally subsidized insurance program is not worth the costs of flood-plain restriction.

Hazard mitigation teams were formed in 1981 when it became clear that state and local governments had not adopted land use measures or other mitigation adjustments directed toward reducing losses caused by flooding. Their authority base, like that for a host of other actions, resided within the Disaster Relief Act of 1974 (Public Law 93-288). This act was stimulated, in part at least, by a rash of massive disasters that required extensive response and recovery operations: Hurricane Carla (1962), the Alaskan Earthquake (1964), Hurricane Betsy (1965), Hurricane Camille (1969), the San Fernando Earthquake (1971), and Hurricane Agnes (1972). Through it, the process for Presidential Declarations was rationalized. As noted above, these resources were administered by the Federal Disaster Assistance Administration (FDAA) which had been established within HUD. In addition, the early 1970s brought significant developments in earthquake prediction technology (see Mileti, Hutton, and Sorensen, 1981). Given significant seismic histories in many areas of the United States, the Earthquake Hazard Reduction Act was passed in 1977 to stimulate new approaches to managing this hazard.

Of course, other hazards stemming from the risks associated with the production of electricity through the use of nuclear power plants, the transportation of hazardous substances, and inadequate storage of toxic wastes, precipitated complex policy responses during these years. Indeed, Fritz's inventory completed in 1977 revealed that over 100 federal agencies had planning, research, or operational functions relating to disasters, hazards, and emergencies. Given this organizational complexity, state and local governments voiced increased dissatisfaction.

While significantly different in scope and organization, many parallel policies and programs were developed within state and local governments, e.g., disaster response and recovery procedures, nuclear power plant emergency planning, earthquake mitigation and preparedness activities, and storage and transportation of hazardous substances. New programs were initiated following new federal guidelines, frequently before those from the previous year had been implemented or evaluated. To date, however, complete historical documentation of these developments within state and local governments remains in process, although a few comparative studies have appeared (Wyner and Mann, 1983; May, 1985b; Lambright, 1985). Clary (1985, p. 26) synthesized some of the highlights of this policy development process; his summary appears as Figure II-3.

The Creation of FEMA and the Implementation of the IEMS

As noted above, dissatisfaction with the federal response to disaster mitigation, preparedness, response, and recovery led President Carter to implement the major reorganization that created FEMA (Executive Orders 12127, of March 31, 1979, and 12148, of July 20, 1979). McLoughlin (1985) prepared a summary of the historical policy evolution and identified the federal programs that were consolidated through this reorganization. Figure II-4 presents a compact synthesis. The complexity of the coordination responsibilities assigned to FEMA are apparent through examination of this figure. Focusing only on those federal agencies with major responsibilities for natural hazard programs, Petak and Atkisson (1982) created the summary listed as Figure II-5. It conveys both the complexity of the emergency management concept

FIGURE II-3

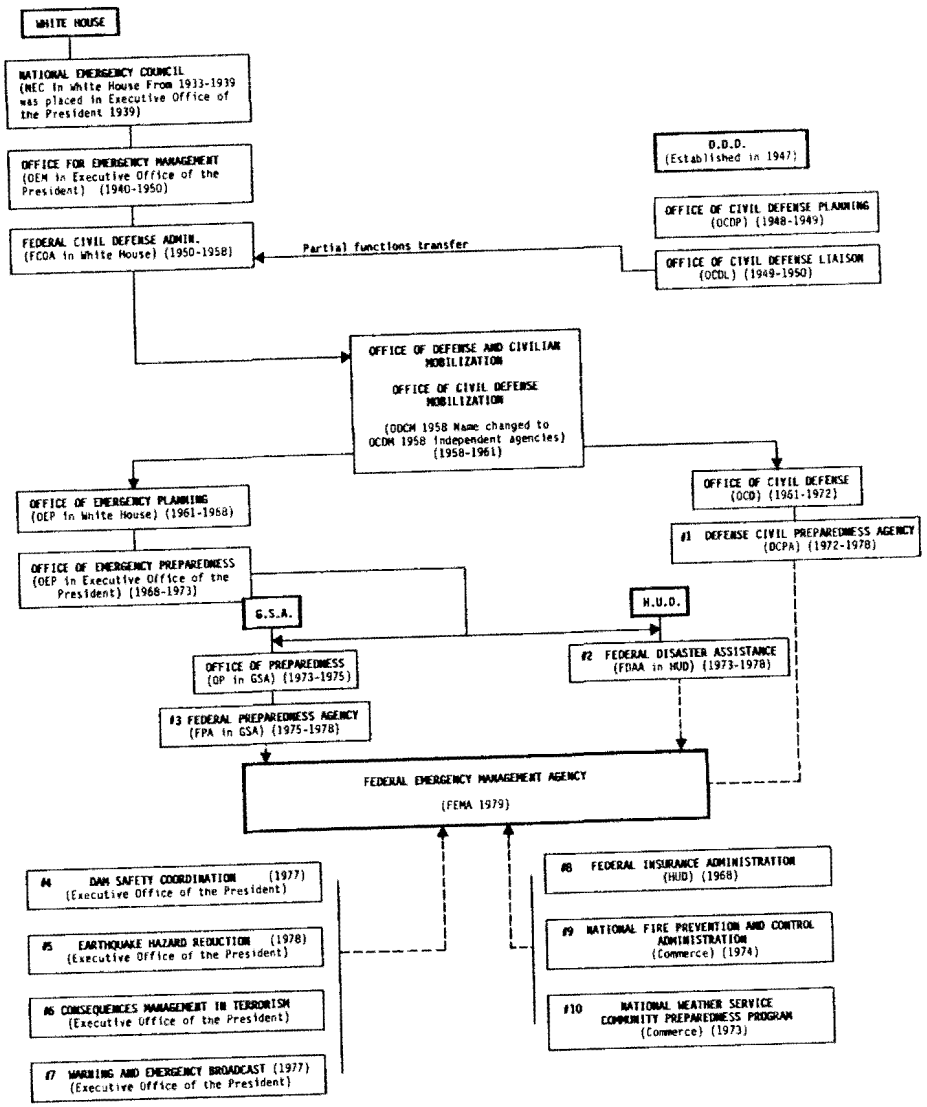
NATURAL HAZARD POLICIES AND RELATED DEVELOPMENTS BY STAGES OF EMERGENCY MANAGEMENT

Level of Government	Emergency Management Stage: Pre-Disaster Mitigation/Prevention	Pre-Disaster Preparedness/ Disaster Response	Post-Disaster Recovery
Federal	• U.S. Corps of Engineers' structural flood control program (Flood Control Act of 1936) • Cirrus and Stormfury hurricane-seeding projects (1947-73) • Flood hazard maps and floodplain management plan (National Flood Insurance Act of 1968) • Funds for state coastal land-use planning (Coastal Zone Management Act of 1972) • Inspection of nonfederal dams (National Dam Inspection Act of 1972) • Public recipients of disaster relief funds must evaluate natural hazards and take action to mitigate them (Section 406, Disaster Relief Act of 1974) • Mandates development of earthquake prediction methodology (Section 5(c), (2), Earthquake Hazard Reduction Act of 1977) • Preservation and restoration of natural floodplains (Executive Orders 11988 and 11990, 1977) • Damage suit filed under the National Flood Insurance Program (U.S. v. Parish of St. Bernard and Jefferson, 1981)	• Procedures establishing disaster declaration (Disaster Relief Act of 1950) • State grants for disaster relief planning (Section 8, Disaster Relief Act of 1969) • Creation of the Federal Emergency Management Agency (Executive Order 12127-1979)	• Creation of Federal Crop Insurance Corporation (Agricultural Adjustment Act of 1938) • Administrative framework for disaster relief (Disaster Relief Act of 1950 and subsequent acts and amendments) • Disaster-specific relief acts, often expanding aid programs (e.g., Pacific Northwest Disaster Relief Act of 1965) • Flood Insurance (National Flood Insurance Act of 1968) • FEMA administrative rule establishing non-negotiated cost split (1980)
State	• Earthquake building standards for public schools (Field Act of 1933-California) • Local floodplain regulations must be consistent with state standards (Cobey-Alquist Floodplain Management Act of 1965 - California) • Regulation of construction practices in zones of known seismic hazard (Alquist-Priolo Special Studies Zone Act of 1972 - California) • Natural hazard prevention as a goal of comprehensive statewide planning (Oregon Statewide Land-Use Planning Program - Act of 1973) • State land trade for property in floodplains (Arizona Flood Relocation and Exchange Law of 1979)	• Emergency management powers as implied in the 10th Amendment of the U.S. Constitution, the reserve clause • Comprehensive Cooperative Agreement between FEMA and state emergency agencies (1981)	
Local	• Regulations and other hazard control techniques: risk zoning, subdivision control, hazard building codes, acquisition of hazard area, lease of hazard-prone land with restrictive covenants, hazard easements, development moratoria, and growth controls	• State delegation of emergency responsibility or exercise of home-rule power, e.g., declaration of a state of emergency and/or curfew	

Source: Bruce B. Clary, "The Evolution and Structure of Natural Hazard Policies," Public Administration Review 45 (January, 1985), p. 26.

FIGURE II-4

FEDERAL EMERGENCY ORGANIZATIONAL DEVELOPMENT



Source: David McLoughlin, "A Framework for Integrated Emergency Management," Public Administration Review 45 (January, 1985), p. 167.

FIGURE II-5

KEY FEDERAL AGENCIES AND PROGRAMS RELATED TO NATURAL HAZARDS

Federal Agency or Activity	Program	Earthquakes	Hurricane Winds	Tornadoes	Tsunamis	Landslides	Riverine Floods	Storm Surge	Severe Winds	Expansive Soil
Farmers Home Administration (DOA)	Emergency Loans	□	□	□	□	□		□	□	□
	Watershed Protection and Flood Prevention Loans						■			
Agricultural Stabilization and Conservation Service (DOA)	Emergency Conservation Measures	□	□				□		□	
Soil Conservation Service (DOA)	Resource Conservation and Development						■			
	Water Shed Protection and Flood Prevention						■			
Department of the Army Office of the Chief of Engineers (DOD)	Flood Control Works (Rehabilitation)		□		□		□	□	□	
	Flood Fighting and Rescue Operations						□	□		
	Flood Plain Management Services						■	■		
	Emergency Bank Protection						□	□		
	Small Flood Control Projects						■	■		
	Snagging and Clearing						■	■		
	Planning Assistance to States						■	■		
	Dam Inspection						■			
Public Health Service	Emergency Medical Service Planning	□	□	□	□	□	□	□	□	
Housing Protection and Mortgage Credit/FHA (HUD)	Mortage Insurance: Disaster Victims	□	□	□	□	□	□	□	□	
Disaster Response and Recovery (FEMA)	Disaster Assistance	□	□	□	□	□	□	□	□	
Federal Insurance Administration (FEMA)	National Flood Insurance Program					■	■	■		
Office of Plans and Preparedness (FEMA)	Energy Management Assistance	■□	■□	■□	■□	■□	■□	■□	■□	
	State Disaster Preparedness Grants	■	■	■	■	■	■	■	■	
	Earthquake and Hurricane Loss Study and Contingency Planning	■	■							
Office of Disaster Response and Recovery (FEMA)	Disaster Assistance	□	□	□	□	□	□	□	□	□
Defense Electric Power Administration (DOI)	Electric Power Planning for Emergencies	□	□				□		□	
Bureau of Reclamation (DOI)	Reclamation Projects						■			
National Science Foundation	Basic Research	R	R	R	R	R	R	R	R	R
Small Business Administration	Loans to Natural Disaster Victims	□	□	□	□	□	□	□	□	
Tennessee Valley Authority	Water Resources Development and Flood Control						■			
Federal Crop Insurance Corp. (DOA)	Crop Insurance		□				□		□	
U.S. Geological Survey (DOI)	Prediction	■			■	■	■			
National Weather Services (NOAA)	Hazard Warnings		■	■	■		■	■	■	
National Meterological Center (NOAA)	Hazard Warnings			■						
National Science Storm Forecast Center (NOAA)	Hazard Warnings			■						
Radar Report and Warning Coordination Circuit (NOAA)	Hazard Warnings		■	■						
GOES - Satellite System (NOAA)	Hazard Warnings		■	■	■					
National Hurricane Center (NOAA)	Hazard Warnings		■							
National Tsunami Warning Center (DOI)	Hazard Warnings				■					
Office of Coastal Zone Management (NOAA)	Coastal Hazard Mitigation	■	■		■	■	■	■	■	

*Landslides only

Legend:
- ■ Programs with pre-disaster functions (disaster mitigation)
- □ Programs with post-disaster functions (disaster relief)
- R Programs with natural hazard research functions

Source: William J. Petak and Arthur A. Atkisson, Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected, New York: Springer-Verlag, 1982, p. 62.

and the myriad of agencies that represent aspects of the adjustments lodged within the federal government.

Shortly after its creation, President Carter appointed John Macy as the first FEMA Director. He acknowledged the "lead agency role" assigned to this unit and embraced the comprehensive emergency management (CEM) concept that had been advocated by the National Governors' Association (1979). In contrast to policies and agency initiatives that tended to emphasize the differences among hazards and disasters which had produced extreme compartmentalization and fragmentation, the FEMA staff wrestled with agency consolidation and the resulting administrative implications. At the outset, it was assumed that an effective civil defense system required the most efficient use of all available emergency resources and that "the communication, warning, evacuation, and public education processes involved in preparedness for a possible nuclear attack should be developed, tested, and used for major natural and accidental disasters as well" (Office of the White House Secretary, 1978).

Almost immediately a rash of diverse events occurred that illustrated the complexities inherent in implementation of this multi-hazard approach. For example, residents near Love Canal--a neighborhood within Niagara Falls, New York--had organized and were pressing for state and federal funds to help them escape from mortgages on homes that appeared to them to have been contaminated. Covered over in 1953, the Canal had been used as a dump for toxic chemicals between 1942 and 1952 (Levine, 1982, p. 10). Nearly 30 years later, residents wondered if their health, and especially that of their children, had been impaired.

> In August 1980, the Democratic party held its National Convention in New York City. Members of the Love Canal Homeowners Association demonstrated outside the convention hall, carrying inflated children's boats printed with slogans proclaiming themselves Carter's Boat People...(Levine, 1982, p. 207).

Through the efforts of FEMA and other federal agency personnel, many homes were purchased through a complex federal-state arrangement that aptly illustrated the political nature of emergency management.

Reference to "boat people" by the Love Canal residents referred to a totally different event into which staff from the then fledgling FEMA were thrust--refugees and exiles from Cuba who arrived en masse in numerous Florida communities. Furthermore, and reflecting yet another dimension of human stress and community disruption, the FEMA staff were queried about the management failures during the response to the accident at the Three Mile Island nuclear power plant. Eventually, major new responsibilities were assigned to FEMA. Of special significance were those pertaining to planning for population protection through evacuation. Thus, beyond the broad mission implicit in the initial reorganization, a series of somewhat unique events tested the boundaries that circumscribed the concept of emergency management.

Although the work predated FEMA's creation, evacuation planning provided intense visibility and public scrutiny during the early 1980s. Shortly after taking office, President Reagan appointed Louis Giuffrida as FEMA Director. While he advocated a comprehensive approach to emergency management, the emphases and priorities were a sharp contrast to those pressed by his predecessor. Reflecting continued commitment to the President's "enhanced civil defense program" Giuffrida maintained that the President had identified four objectives for the new initiative.

1) Provide for survival of a substantial portion of the U.S. population in the event of nuclear attack preceded by strategic warning, and for continuity of government, should deterrence and escalation control fail;

2) Provide an improved ability to deal with natural disasters and other large-scale domestic emergencies.

3) Enhance deterrence and stability in conjunction with our strategic offensive and other strategic defensive forces. Civil defense as an element of the strategic balance, should assist in maintaining perceptions that this balance is favorable to the U.S.;

4) Reduce the possibility that the U.S. could be coerced in time of crisis; (Giuffrida, 1983, pp. 3-4).

As they tried to comply with FEMA directives, however, some local and state emergency management directors encountered serious difficulties. While the technical aspects of such mass evacuations were awesome, escalating public interest made things even more difficult. At times, local coordinators discovered that their efforts at public education simply backfired. Indeed, some encountered intense organized resistance when they requested approvals of "mini plans" by elected officials. Others arrived at budget hearings and found large audiences comprised of people prepared to offer statements attacking the credibility of the basic assumptions behind Crisis Relocation Planning (CRP).

The 1982 annual convention of the United States Civil Defense Council--a national organization whose membership included over 2,000 local directors--was held in Portland, Oregon. Expressing their disagreement with FEMA's CRP initiative and other policies being advocated by members of the Reagan administration, costumed demonstrators paraded outside the convention hotel. Their actions were interpreted differently by factions within the USCDC membership. The dissension was apparent to any--like myself--who discussed with members whether or not a proposed name change should be adopted wherein the term "civil defense" would be dropped. The following year the National Coordinating

Council for Emergency Management was formed officially. Some viewed this as victory, others claimed that the renamed association would be short-lived.

Within this context of controversy, FEMA staff announced that the Integrated Emergency Management System (IEMS) would guide all of its programs: "This all-hazard approach serves as a foundation on which the specific aspects for each individual emergency can be based such as direction, control and warning systems which are common to the full range of emergencies from small isolated events to the ultimate emergency--war" (Giuffrida, 1983, p. 9).

As public and Congressional pressures intensified, local directors encountered mixed signs at first, then a suspension of the Crisis Relocation Program (CRP). They, like the public, learned of the "nuclear winter hypothesis"--an idea popularized by the astronomer Carl Sagan and a host of others including such groups as the Union of Concerned Scientists and the Physicians for Social Responsibility. Thus, some local emergency management agency directors encountered citizens with a new line of questioning--could it be possible that civil defense planning might become the provocation for nuclear attack?

Gradually, these elements of debate began to appear on college campuses with increased frequency as generalists responded to heightened student interest through courses on "the nuclear age" and research specialists debated the wisdom of juxtaposing human responses to nuclear, as opposed to non-nuclear, events. For some, nuclear war, if it ever were to occur, would be an event to which none of the learnings from prior research studies would apply. They were highly critical of research directed toward such comparisons. A few even claimed that such efforts were inadequate scientifically and dangerous politically. Of

course, many others disagreed with these views (see the contrast between Kreps' 1984 review of Perry, 1982, and Platt's, 1984 review of Perry, 1982).

The CRP program was one of four FEMA initiatives selected for intensive study by May and Williams (1986). By contrasting it to efforts at flood plain regulation, dam safety mobilization, and earthquake preparedness, they insightfully described the key processes of implementation failure (see pp. 109-124). Their interviews revealed the fragility and constraints inherent in the complex intergovernmental system of which local emergency management agencies are but one of the many players.

> The experience in attempting to implement the crisis relocation planning program illustrates the relatively rare case of overt collaborative degeneration. Only a small number of states and localities actually refused to participate, but many more officials became skeptical about the feasibility of the program. More important, Congress became reluctant to fund the program ...(pp. 122-123).

As local agency directors pondered their options within varied community settings that ranged from outright hostility to significant endorsement of the CRP program, those most dependent on FEMA funds for partial support of their agency budget tried to walk the tightrope reflective of these conflicting viewpoints. Although FEMA might have pressed for local agency compliance, by 1984 it was clear that would not happen. May and Williams (1986) interpreted the situations as follows:

> FEMA officials kept a low profile in the face of opposition, letting state and local civil defense professionals take the heat. Moreover, FEMA officials were willing to fund CRP 'under the table' if only state and local governments would accept the money. The federal government was reluctant to take no for an answer. The 'feds' said, in effect, take the CRP funds, do what you choose as long as it is emergency planning, and call the activity what you want, or need, to make it acceptable at the local level (p. 123).

In 1985, Julius Becton was appointed FEMA director and continued the effort to implement the IEMS policy. In his testimony before the Subcommittee on HUD-Independent Agencies, of the United States House of Representatives Committee on Appropriations, Becton stressed his commitment to an all-hazards approach:

> During 1987, FEMA will continue to revise guidance and develop support materials which will assist state and local governments in building functional emergency management capabilities. Civil Defense funds made available to states for attack preparedness may be used for preparing for, and providing emergency assistance in response to, peacetime disasters to the extent such use is consistent with, contributes to, and does not detract from attack related preparedness (Hazard Monthly, 1986, p. 8).

Anti-civil defense arguments continued to surface, however. Often these reflected the belief that there is no credible defense against nuclear attack. Less shrill voices cautioned that:

> ...the scientific evidence strongly suggests that detonation of a large portion of the world's nuclear arsenals--especially if this results in large-scale urban fires--might lead to climatic and biological consequences that could prove devastating to much of the earth's population. These findings give credence to the view that there could be no winners in a major nuclear war, nor could opting out of the conflict insulate nations from the consequence of such a war (Dotto, 1986, p. 129).

With President Reagan's announcement of the "strategic defense initiative"--quickly dubbed "star wars"--and the shifting of priorities within the FEMA, directors of local emergency management agencies had a broad mandate within which they could push for programmatic elements that best reflected the attitudes, needs and concerns of their local community. Depending in part upon the latitude encouraged and priorities emphasized by the state emergency management office--whatever it might be named--local agencies may perceive a hostile environment that requires constant struggle or a supportive one. Within the mix of needs that comprise community social action agendas, emergency prepared-

ness programs remain low priority items except when disaster strikes (Rossi **et al.**, 1982). Even then, local directors may or may not try to push their agency into a high profile. As will be summarized in the chapters that follow, there are differing strategies, alternative approaches.

The historical and extra-community environment within which directors of local emergency management agencies function is characterized by four key structural features: 1) localism; 2) lack of standardization; 3) unit diversity; and 4) fragmentation (Drabek, 1985b).

Localism reflects the decentralized structure of American society. Despite the important augmentations and specialized functions that are provided by state and federal agencies, especially during the recovery phases of large-scale disasters, the first line of responsibility for public protection resides with local government.

Lack of standardization has to do with the heterogeneous nature of local emergency management agencies. The extent of decentralization that characterizes American society permits wide variation in how the emergency management function is accomplished and organized. This will be discussed further in the next chapter.

Unit diversity constitutes a difficult managerial problem. As the coordinator of agencies that are responding to a disaster, for example, a local director confronts differing authority bases that range from state national guard units to federal military and private voluntary organizations. When juxtaposed against the range of local organizations and agencies with specialized expertise or resources, be it a community-based diving team or an expert tracker from the United States Border Patrol, the range of career paths and differing areas of technical training can be a confusing array.

Finally, fragmentation is the by-product of the historical evolutionary pattern of policy development that was summarized above. Both horizontally among community agencies and vertically across intergovernmental structures, the emergency management system has many points of potential strain. When the mix of natural and technological hazards is combined with civil defense responsibilities, the directors of the agencies face a complex mission. When potential disasters are viewed within their complete life cycles--mitigation, preparedness, response, and recovery--the organizational task may seem gargantuan. Fortunately for American society, some people are attracted to such challenges, and many communities are indeed fortunate to have reasonably effective programs.

CHAPTER III

MANAGERIAL BEHAVIOR AND AGENCY INTEGRITY IN LOCAL EMERGENCY MANAGEMENT AGENCIES

While the total number of studies has not been large, several investigators have examined local emergency management agencies. As the brief historical overview above indicated, the participating agencies carried such names as civil defense, emergency preparedness, emergency management, or some similar moniker. A few researchers have studied the disaster response or mitigation **function** within local government, in contrast to an agency focus. For example, Wolensky and Miller (1981) examined citizen perceptions of local officials' roles in disaster, as opposed to nondisaster, situations. The "citizens" they queried were members of two ad hoc groups which emerged in Northeastern Pennsylvania a few days after Tropical Storm Agnes (June, 1972) caused extensive flooding (see also Wolensky, 1977):

> Citizens' disaster definitions were for a much more active role while they favored a custodial orientation in the everyday situation. Officials saw their roles as basically custodial in the disaster and everyday environments (Wolensky and Miller, 1981, p. 484).

Much earlier, LaPalombara and his associates (1956) had concluded that local civil defense units usually got appropriations that were unrelated to specific needs; were not treated as other city agencies; and had difficulty in maintaining a credible mission during nondisaster periods. Thus, based on various field studies and a questionnaire survey, these researchers concluded that the primary problems confronting local civil defense directors were to gain acceptance and to find stability at the community level. Those who had the best support bases had secured the firm backing of the mayor. This was especially critical because most civic leaders did not identify with civil defense and

generally were hostile and disdainful toward CD programs. Within such environments, many local directors had discovered that patronage placed their programs at risk. Furthermore, low organizational status reinforced trends toward low budgets, poorly paid personnel, and emphasis on volunteers rather than professionalization and specialization.

Ten years later, Locke, Locke, and Dean (1966) published their study of 316 civil defense directors from three Midwestern states. Using 30 program qualities as a basis for rating each, they concluded that the most successful directors were more "professionalized." That is, they held full-time, paid positions, were responsible for larger jurisdictions, and had more years of experience in civil defense work. They interpreted these results within a policy context--that is, the United States would be better served by paid professionals than by unpaid volunteers.

Although some communities undoubtedly still have personnel and programs of poor quality, recent studies reveal some good news. For example, Wittenberg and Parham (1984) conducted over 2000 interviews with personnel in private, public and quasi-public agencies during a seven-year period throughout FEMA Region X (Alaska, Idaho, Oregon, and Washington). In summary form, the emergent portrait was as follows:

> Emergency management today, compared to the concept within which it operated seven years ago, has changed considerably in this region. Governments are more aware of the need for mitigation, preparedness, and response for all hazards. They are more willing to participate and to include all departments in the formulation of plans, tests and exercises. This change can be attributed to 1) an increased emphasis on all-hazard planning, 2) younger, more aggressive and qualified directors with planning and management backgrounds, 3) the upgrading of the position of Emergency Manager to department status, 4) increased involvement of public safety agencies such as police and fire, 5) better public information and awareness, 6) better training programs and materials through FEMA, and 7) more recruitment and involvement of the private sector and volunteer agencies (p. 1).

Consistent with this more upbeat portrait, Petak (1984) also has identified a trend that will be a major theme of later chapters--professionalism. In a provocative essay, he argued that many federally sponsored programs have failed because of intergovernmental conflicts and inadequacies within local government. Among these, a lack of professionalism was the primary culprit. "Mechanisms for achieving 'professionalism' of natural disaster mitigation policy-making operations clearly are essential to the development of policy alternatives which move toward achieving total system optimization" (Petak, 1984, p. 297).

In contrast to these more focused studies, however, are large-scale investigations of local disaster preparedness agencies and their personnel conducted by researchers associated with four different organizations: 1) Iowa State University; 2) Disaster Research Center; 3) International City Managers Association; and 4) United Research Services Incorporated. In the first two cases the studies extended episodically over several years. This chapter summarizes the key discoveries from these studies that have special relevance to our area of concern.

The Iowa State University Studies (1962-1975)

In the Fall of 1962, a random sample of 66 directors of local civil defense (CD) agencies within the state of Iowa were interviewed (Klonglan **et al.**, 1964, p. 9). Data were collected on aspects of the directors' "role performance" which these researchers believed could be predicted by a "social system model." The model was comprised of 12 broad concepts including nine structural qualities or elements (ends or goals, facilities or means, norms, sanctions, status-role, rank, power, belief or knowledge, sentiment, including attitudes), and three social

processes (communication, boundary maintenance, and systemic linkage) (Klonglan **et al.**, 1967a, pp. 2-9). By conceptualizing local CD directors as "community change agents," this research team discovered that within their matrices of correlations, one factor stood out: "systemic linkage." Operationally, that means "working with local groups and individuals." An ability to do that best predicted high scores on role performance (the extent to which the director indicated accomplishment of eight types of tasks, e.g., "licensing of eligible buildings," and "establishing a survival plan").

The data base was extended through parallel surveys within the states of Minnesota, Georgia, and Massachusetts (Klonglan **et al.**, 1966b). During this time, however, the team also conducted two national surveys (Summer, 1964, and Winter, 1966) to assess the degree to which "... individuals are aware of and have decided to use public fallout shelters in the event of a nuclear attack by applying certain of the adoption-diffusion concepts developed and used by sociologists" (Klonglan **et al.**, 1966a, p. 3). Assuming that people's attitudes could be scaled along a five-stage continuum of adoption--awareness, information, evaluation, trial, and adoption--they explored the relationships among numerous demographic variables and certain attitude sets that might be predictive of the acceptance of this "innovation." They discovered that during the time between these two surveys, more of the public became aware of the sheltering program (1964-45% were unaware of public fallout shelters; 1966-21% were unaware). Despite increased awareness, however, fewer people (18% in 1964 vs. 16% in 1966) indicated adoption. Adopters were defined as people "...who said they were **aware** of, had **information** about, had **thought** about, and had **decided to go to** a public fallout shelter if there was a nuclear attack" (Klonglan **et al.**,

1966a, p. 22). While television (news and special programs) was listed by nearly two-thirds (61.5%) as the most used information source, followed by "daily or weekly newspapers" (54.6%) and "radio news and special programs" (49.8%), Klonglan and his associates (1966a, p. 35) specified that "pamphlets put out by the Office of Civil Defense" was checked by nearly one-half of those surveyed (46%).

During the late 1960s, the team further explored the perceptions of role performance held by local civil defense directors and managers of connecting agencies. For example, in 1967, they issued a report on the civil defense role of local governing bodies based on an Iowa sample of nine county board members, 21 mayors, and nine county-municipal civil defense directors. Reflecting the role analysis research strategies that others had found useful in understanding the conflict and stress resolution mechanisms in school systems (Gross **et al.**, 1958), state police organizations (Preiss and Ehrlich, 1966), business organizations (Kahn **et al.**, 1964), and hospitals (Haas, 1964), the Iowa team concluded:

> ...that county board members, mayors and county-municipal civil defense directors are not performing all their civil defense role responsibilities, as defined by official civil defense sources. Also, it can be said that county board members and mayors are performing tasks which are **not** their responsibilities, as defined by official civil defense sources (Klonglan **et al.**, 1967b, p. 149).

Elements of role ambiguity and other forms of system strain were documented as the team examined their four-state data set further so as to identify with greater precision the correlates of effectiveness in role performance by local civil defense directors (Klonglan **et al.**, 1967b; Mulford, Klonglan, and Schmitz, 1971).

These analyses were extended through a nationally based questionnaire survey (711 directors selected randomly from jurisdictions with

populations in excess of 5,000 citizens; 461 returns [65%]) that was conducted during 1971-1972. This larger data base confirmed many of the preliminary conclusions and permitted greater precision and specification of others (Klonglan **et al.**, 1972; Mulford, Klonglan, and Tweed, 1973; Mulford **et al.**, 1973; Klonglan **et al.**, 1973; Klonglan, Mulford, and Faisal, 1973; Mulford, Klonglan, and Kopachevsky, 1973). They documented, for example, that "...preparedness for nuclear attack is not salient for most coordinators. One clear implication for DCPA is that appeals made to local coordinators on the basis of things a coordinator should do or be able to do in terms of the all-hazards approach are likely to be more readily acted upon than others" (Mulford, Klonglan, and Tweed, 1973, p. 2).

While many factors were found to be related to the effectiveness levels of local coordinators, the types of linkages between civil defense programs and community elites and their activities were discovered to be most critical. Thus, horizontal linkage patterns, like time spent with one's counterparts elsewhere in the state or region (see Mulford, Klonglan, and Tweed, 1973, p. 8), proved to be predictive of higher performance levels and job satisfaction.

Although limited to the constraints of a fixed choice set of questionnaire items, these analyses suggested that several different **strategies** were being used. Six were identified:

1) Audience strategy--"...the task of educating individuals and organizations as to the functions and necessity of community preparedness" (p. 3).

2) Resource building strategy--"...the acquisition of personnel, equipment and funds needed to build the organization's operation capacity" (p. 3).

3) Emergency resource strategy--"...the degree that a local coordinator can secure the participation of an organization for the duration of time when he is anticipating, responding to and following a disaster" (p. 3).

4) Cooptation strategy--"...the process by which organizations...absorb key people, including members of other organizations into its formal structure, e.g., board of directors, as a means of protecting the organization from threats to its stability..." (pp. 3-4).

5) Elite representation strategy--"...the placement of one organization's member...on the board of another organization, or in situations where the representative can interact with key people" (p. 4).

6) Constituency strategy--"...the establishment of a relationship between two organizations whereby one of the two benefits directly from the activities of the other" (p. 4) (adapted from Mulford, Klonglan, and Kopachevsky, 1973, pp. 3-4 of Summary).

While they could not explore the matter in depth, the Iowa State team concluded that "...the extent of use of **diverse resource acquisition strategies** varies considerably on the basis of **environmental, organizational and coordinator** characteristics (Mulford, Klonglan and Kopachevsky, 1973, p. 40). For example, "...directors with less training were much higher on the 'audience' strategy than others with more training..." (p. 39). Similarly, "...organizations with less types of DCPA monies (EOC, P & A) were among the highest users of..." the building resource strategy, and "...municipal or city jurisdictions are considerably higher on constituency than larger areal jurisdictions like counties" (p. 39). Furthermore "...coordinators with more training are highest on elite representation" (p. 40). In short, these observations validated the need for further study of the managerial strategies used by local directors and the pattern differences that might exist among directors in agencies located in communities of different types.

The final study completed by the Iowa State research team focused on the training efforts initiated by the Defense Civil Preparedness

Agency (DCPA)--one of the predecessor agencies of the FEMA. This questionnaire survey (n=128) explored the types of changes produced by four "phase" courses that were offered regularly throughout the ten FEMA regions until the establishment of the National Emergency Training Center (NETC) located at Emmitsburg, Maryland.

> The seven behavioral areas in which the LCDCs report having made significant changes were concerned with: (1) the involvement of more private organizations in civil preparedness work; (2) increasing the involvement of local public services in DCPA activities; (3) acquiring an access to the broadcast media; (4) establishing an emergency center for disaster operations; (5) the updating of equipment and procedures used in the EOC; (6) the development and revision of written disaster plans; and (7) coordinating the emergency planning activities of local official and community leaders. The two behavioral areas in which a lesser degree of impact was indicated were related to: (1) designing communication packages for specific audiences and (2) efforts to secure federal and state grants (Klonglan, Mulford, and Hay, 1973, p. 3).

Up until 1975, when funding was withdrawn, the team continued their focus on complexities involved in interagency coordination. Among their most useful products was an instructor's guide entitled "Creating Interorganizational Coordination" (Klonglan **et al.**, 1975). Various exercises, case studies, and presentations of theoretical materials were synthesized to provide an instructional resource in the growing array of similar materials being made available to local emergency preparedness personnel. The concept of interagency coordination continued to be explored by both Klonglan and Mulford and several associates in other human service agency settings (Klonglan **et** al., 1976; Mulford and Klonglan, 1981; and Mulford and Mulford, 1977). An extensive review of the research literature (Mulford **et al.**, 1979) and an analytical summary (Rogers, Whetten, and Associates, 1982) provided human agency service workers with keen insights into the processes of and barriers to interagency coordination.

Disaster Research Center Studies (1963-1987)

In 1985, the Disaster Research Center, which had been located at The Ohio State University for over two decades, was relocated. One of its three founders--E. L. Quarantelli--rejoined his long-term colleague R. R. Dynes--another of the DRC founders--who had begun chairing the University of Delaware Sociology Department a few years earlier. Assisted by Dennis Wenger, a former DRC staff member and Ohio State doctorate, Quarantelli and Dynes are continuing the DRC tradition of focused studies on varied postdisaster phenomena ranging from emergent agency networks created to handle mass casualties, to responses by media organizations and emergency medical units, and a host of other issues in social science methodology and theory (see Dynes, De Marchi, and Pelanda, 1987).

The DRC publications list now exceeds over two hundred articles, books, monographs, book chapters, bibliographies and the like. Of special relevance to this study of the strategies used by local emergency management directors, however, were several insightful publications that dissected different aspects of these agencies and their function.

Reflecting observations gleaned from over 200 postdisaster studies, Dynes, Quarantelli, and Kreps (1972) offered important insights into the disaster planning process--a process that must be regarded as continuous and ongoing, not one that is completed when a notebook has been printed. Local directors must assist personnel in police, fire, medical, and other emergency agencies to realize that disaster responses differ qualitatively from routine emergencies in six important ways: 1) uncertainty; 2) urgency; 3) the development of emergency consensus; 4) expansion of the citizenship role; 5) convergence; and 6) deemphasis of

contractual and impersonal relationships (adapted from Dynes, Quarantelli, and Kreps, 1972, pp. 48-49).

Furthermore, planning for disasters must be differentiated from the principles that guide management of an emergency (Quarantelli, 1984). While complementary, the two tasks must not be confused:

- **Principles of disaster planning**: a. A continuous process; b. Reducing the unknowns in a problematical situation; c. Evoking appropriate actions; d. What is likely to happen; e. Based on valid knowledge; f. Focused on general principles; g. An educational activity; h. Overcoming resistances; i. Testing; j. Not management (Quarantelli, 1981, p. Contents).

- **Principles of emergency management**: (1) Agent-generated demands; a. Warning; b. Pre-impact preparations; c. Search and rescue; d. Care of injured and dead; e. Welfare needs; f. Restoration of essential community services; g. Protection against continuing threat; h. Community order. (2) Response-generated demands; a. Communication; b. Continuing assessment of disaster situation; c. Mobilization and utilization of human and material resources; d. Coordination; e. Exercise of authority (Quarantelli, 1981, p. Contents).

Arguing that a "command and control" response model was inappropriate, Dynes (1983) formulated seven "implications" that pointed toward an alternative--what he labeled an "emergent human resources model." "The basic assumption in the emergent human resources model is that the local social system is the logical and viable base for emergency action, rather than that the local system must be held together by strengthened centralized control" (Dynes, 1983, p. 659). Those responsible for planning should: 1) utilize existing habit patterns as the basis for emergency action; 2) utilize existing social units, rather than create new **ad hoc** ones; 3) if outside resources are needed, employ resources that are consistent with local sociocultural practices; 4) utilize the existing authority structure, rather than create new ones; 5) utilize existing channels of communication and increase them, rather

than restrict and narrow them to "official messages"; 6) recognize that the aim of any emergency planning is to move back to "normal" as quickly as possible; and 7) not regard the recovery stage as the opportunity for massive (and directed) social change (adapted from Dynes, 1983, p. 659).

These conclusions were normative, however; that is, they specified how things **ought** to be done. Useful and necessary for those trying to do these jobs, they contrast with a different set of conclusions based on field studies of local agencies. Paralleling the conclusions from the Iowa State team, Anderson (1969) identified four conditions that were associated with successful civil defense offices:

> The conditions which are most likely to be productive of successful involvement are as follows: 1. that local civil defense has developed previous experience in handling community disasters....2. that municipal government provides a structure which accepts and legitimizes the civil defense function....3. that the local civil defense director has the ability to generate significant pre-disaster relationships among those organizations which do become involved in emergency activities....4. that emergency-relevant resources, such as an emergency operations center, be provided and the knowledge of the availability of these resources is widespread through the community (pp. 60-61).

Anderson also concluded that "...civil defense organizations often experience some difficulty in terms of their authority and jurisdiction during disaster. Among other things, this is due to the fact that their disaster authority is often unclear or is not acknowledged as legitimate by other disaster-activated social units (p. 52).

After reviewing the experiences of civil defense directors in 12 cities, located within 12 different states, Dynes and Quarantelli (1975) reached two critical conclusions. First, factors similar to those identified by Anderson (1969) differentiated offices that had "legitimacy":

> 1. environmental factors, e.g., seasonal threats; 2. structural factors, e.g., location of the civil defense office within local government; 3. relational factors, e.g., the more extensive the relations inside and outside the local government structure, the more legitimacy is provided to the local office; 4. output factors, e.g., EOC's which provide a location for the collection of information about disaster impact (adapted from Dynes and Quarantelli, 1975, pp. 51-53).

Second, there was substantial diversity in the emphases or priorities of these local directors. Indeed, there appeared to be at least nine different approaches to the job. These approaches or "models" might be combined to varying degrees by directors who might be more or less aware of the implications of their "behavioral style."

1) **Maintenance model:** emphasis on maintaining resources which have been developed over time, such as facilities, supplies, and budget.

2) **Military model:** emphasis on the necessity for military organization to cope with emergencies.

3) **Disaster expert model:** emphasis on a particular type of expert resource within the community.

4) **Administrative staff model:** emphasis on organizational skills.

5) **Derived political power model:** emphasis on the necessity for coordination in emergency planning but the motivation for emergency planning is derived from the 'imposition' of the mayor's authority.

6) **Interpersonal broker model:** emphasis on contacts and informal relationships among personnel in various emergency organizations.

7) **Abstract planner model:** emphasis on the development of planning based on a knowledge of various contingencies.

8) **Community educator model:** emphasis on overcoming community apathy toward planning.

9) **Disaster simulation model:** emphasis on the rehearsal of disaster plans (adapted from Dynes and Quarantelli, 1975, pp. 57-58).

Ten years later, Quarantelli (1985) completed a comparative study wherein he juxtaposed the portrait obtained in 1975 with data collected in 16 local emergency management agencies (LEMAs) during the mid-1980s. Making his readers fully aware that a larger and nationally based sample

would be required to provide statistically valid generalizations, he offered the following conclusion:

> When present day LEMAs are compared with the civil defense offices of 15 years ago, they show continuities along two lines and a difference in one line. In terms of continuity, LEMAs still continue to show considerable variability in structure and functioning. Their response patterns at times of disasters still manifest the same kinds of problems as were observed in earlier studies (and LEMAs still continue to do little managing). On the other hand, there is one rather noticeable difference and it is that the disaster preparedness status of LEMAs is much better than it once was (pp. 27-28).

With this portrait as context, Quarantelli (1985) offered a large number of more precise observations that highlighted points of continuity and change during the past decade. Among those most salient to the present study were these six points:

- How LEMAs are internally structured, what domains and responsibilities they claim in community preparedness, how they relate to and are viewed by other emergency-relevant organizations, what resources they have and mobilize in dangerous threats and impacts in their localities, and what and how they carry out tasks, can and do vary substantially (p. 11).

- ...LEMAs are following one of two different paths with respect to planning for wartime (essentially nuclear war) emergencies. In a number of localities, responsibility for nuclear war planning--and this is the language typically used rather than nuclear civil protection planning--is only superficially and nominally accepted (we were told this was sometime done only to continue to meet requirements for matching federal funds); in a few communities there is overt and outright refusal to undertake any nuclear war civil protection planning, an almost unheard of position in our earlier studies (p. 13).

- ...as in the past, the directors of the agencies manifest a wide variety of behavioral styles in carrying out their role. Although use of work-related research results, training opportunities, educational material, etc. is very uneven and far from universal, it nonetheless is far more prevalent among agency personnel than in the past (p. 15).

- Paralleling the lack of saliency for most LEMAs is a lack of legitimacy, a pervasive problem which DRC noted existed for local civil defense offices in the late 1960s and early 1970s. Legitimacy of course is not legality; LEMAs all have the latter, they generally lack the former (p. 16).

- ...DRC has found practically no LEMAs in its recent field studies which did not have an EOC, a disaster plan, and responsibility of some kind in the natural disaster warning process for the community. All these features certainly were rare in the civil defense offices of 10-15 years ago....But existence of something is one thing, its quality is another. We have already noted that the quality of the disaster preparedness of LEMAs, when judged in more absolute terms, is at best markedly uneven and as a whole not of the highest grade. Most written disaster plans we have obtained from LEMAs, for instance, had not been updated since they were originally written (p. 40).

- ...the disaster preparedness of LEMAs often do not take well into account the number and kinds of organizational responders who will appear at the time of the emergency response,...while some LEMAs recognize the possibility of emergence in emergency responses, they tend to see that as a problem rather than opportunity (pp. 48-49).

Finally, although he was at the edges of his data base, Quarantelli proposed that these changes probably were not due totally to "top down efforts" by state or federal personnel. Rather they may be more reflective of two other factors: 1) the quality and orientations of newer LEMA staff members, and 2) increased expectations by the American public "...that they are entitled to protection from all kinds of hazards and will hold accountable those officials who do not provide that protection" (Quarantelli, 1985, p. 39).

Most recently, Wenger, Quarantelli, and Dynes (1987) completed a comparative study of LEMA functioning during six disasters--a chemical spill, a hurricane, a tornado and three floods. Building on Quarantelli's previous observations regarding the need for a typology of LEMAs (1985, pp. 34-35), the DRC team identified three key qualities: 1) structure; 2) extensiveness of planning activities; and 3) extensiveness of response activities. Upon cross-tabulating these, eight types

of LEMAs were identified (the analytic characteristics of each are identified in Figure III-1). The team identified numerous conclusions; six were most salient to our present considerations:

- ...an effective response is highlighted by excellent information collection and distribution, a fully-staffed and functioning EOC, adequate human and material resources, a specialized division of labor among responding units with the coordination of those units by one agency, a legitimated authority structure, integrated and coordinated relationships with outside organizations, mutually beneficial and effective relationships between emergency officials and mass media representatives, and 'reality-based' activities (p. 21).

- Planning is often still limited in communities without viable, full-time emergency management agencies. The response patterns in these communities are less extensive. The response pattern can be excellent where planning of high quality and the attempt is made to interface those preparations with response activity. However, where there are structural discontinuities between the planned emergency response system and the normal organization of government, the efficiency of the response may be hindered--even in the face of excellent planning (p. 56).

- LEMA arrangements seem to be most supported by the structure of medium-sized cities; CEMA arrangements are perhaps better suited to small and very large communities. It is not necessarily true that a Type 8, or Community Emergency Management Arrangement, is the optimal structure for all communities (p. 74).

- There is no one structurally optimum type of LEMA for all communities. Efforts to impose a single uniform model are likely to be both ineffective and dysfunctional (p. 77).

- The degree of autonomy of LEMAs is less important than the extensiveness of the planning and response they undertake. It appears that less attention can be paid to the positioning of LEMAs in the social structure of communities than is frequently assumed (p. 77).

- There is extremely wide diversity in local disaster planning as well as considerable variety in the structure of LEMAs. While minimum standards ought to be set for LEMAs, the advantages of heterogeneity should be recognized and used (p. 77).

International City Managers Association Projects (1980-1984)

Using 11 case studies and a review of over 300 emergency management organizations in 1979-80, the ICMA staff prepared the "Local Government

FIGURE III-1

DRC TYPOLOGY OF LOCAL EMERGENCY MANAGEMENT AGENCIES

		STRUCTURE			
		Autonomous		Integrated	
	EXTENSIVENESS OF PLANNING ACTIVITIES	Narrow	Broad	Narrow	Broad
EXTENSIVENESS OF RESPONSE ACTIVITIES	Narrow	Type 1	Type 2	Type 5	Type 6
	Broad	Type 3	Type 4	Type 7	Type 8

Type 1 = Traditional LEMO, Local Emergency Management Office
Type 2 = Bypassed LEMA, Local Emergency Management Agency
Type 3 = Emergent LEMA, Local Emergency Management Agency
Type 4 = Established LEMA, Local Emergency Management Agency
Type 5 = Embedded CEMO, Community Emergency Management Office
Type 6 = Bypassed CEMA, Community Emergency Management Arrangement
Type 7 = Emergent CEMA, Community Emergency Management Arrangement
Type 8 = Established CEMA, Community Emergency Management Arrangement

(Wenger, Quarantelli and Dynes, 1987, p. 60)

Emergency Management Handbook Series" (ICMA, 1981). While these materials were designed for local officials--especially city managers or their counterparts and elected officials--to review the emergency management capability of their jurisdiction, they contained several analytic ideas. Four of these had special relevance for a study of managerial strategies.

First, it was proposed that persons selected to coordinate the local emergency management program ought to have certain individual traits or qualities. The ICMA staff listed 16 such characteristics:

- He (or she) must be a superior leader.
- He must be technically knowledgeable about emergency management.
- He must be able to integrate the activities and efforts of diverse groups and individuals.
- He must know what his organization can, will, and will not do.
- He should have a proven track record of accomplishments so that he can gain the respect of peers, managers, and subordinates.
- He must be personally dynamic and persuasive.
- He must be a hard worker and driver, and one who motivates others.
- He must be fair.
- He must be able to juggle resources in such a manner as to get the job done given time and cost constraints.
- He must be flexible enough to handle changed directions and respond positively.
- He must exercise good judgment at all times.
- He must be a good planner and possess a good business sense.
- He must be knowledgeable about the tools of project management and know when and how they should be applied.
- He must have the personality to deal with all types of people and situations and keep a level head.

- He must be good at expressing his ideas both verbally and in writing.
- He must have a capacity for resolving interdepartmental conflicts (ICMA, 1981, pp. 24-25).

Second, the staff proposed that conflict and resistance to change could be minimized if certain steps were followed. Although not discussed in detail, four approaches were highlighted: 1) establish an Executive Approval Board; 2) maintain good lines of communication between staff and the Executive Board; 3) work actively with members of the Board and other public and private officials; and 4) disseminate information concerning decisions made by the Executive Approval Board (adapted from pp. 26-27). Of course, like the personal attributes, these were proposed as reasonable judgments based on case studies rather than through more rigorous documentation methods.

Third, after a great deal of synthesis and distillation, 20 characteristics were identified that seemed to contribute to an effective emergency management organization. Exercises were designed for each of these to aid the handbook user in considering how well their current program reflected each characteristic. In summary form, the 20 characteristics were as follows:

- Roles of elected officials defined
- Strong and definitive lines of command
- Disaster organizational structure/similar to your routine organization
- Emergency management procedures are as close to routine operational procedures as possible
- Good interpersonal relationships
- Emergency management planning is ongoing activity
- All hazard approach
- Disaster prevention and mitigation

- Motivation provided for involvement in the emergency management program
- Citizen involvement
- Coordination among participating agencies
- Public/private cooperation
- Multiple use of resources
- Public information function clearly defined
- On-going monitoring for potential disasters
- Internal alerting procedure
- Ability to alert the public maximized
- Active intergovernmental coordination
- Ability to maintain comprehensive records during a disaster
- Eligibility for state & federal subsidies considered

(adapted from pp. 47-139).

Finally, the staff made an effort to relate the 20 "desirable characteristics" to 12 alternative organizational structures. These ranged from a structure wherein the chief administrative officer (CAO) was the emergency management director, planner and incident commander, to such alternative structures wherein the CAO was the emergency management director and an emergency management specialist was both planner and incident commander, or to a design wherein emergency management planning was a CAO staff function and the incident commander assignment varied by types of disaster (pp. A-22-36). ICMA staff estimated that the three structural designs wherein the largest number of the "desirable characteristics" would be "likely or highly possible to prevail" were: 1) Design F: CAO = EP Director; Public Safety Division = Planning; Public Safety Director = Incident Commander (13 of 20 desirable characteristics); 2) Design E: CAO = EP Director; City Departments perform planning and incident command function (e.g., police, fire) (11 of 20 desirable characteristics); and 3) Design G: CAO = EP Director; CAO Staff = Planning; Department head and disaster type determine incident command function (11 of 20 desirable characteristics) (p. A-36). Of course, none of these conclusions have been tested empirically in comparative disaster response research studies.

These normatively based materials--that is, prescriptions to stimulate reflections on alternative modes of organizing--have been used effectively in a continuing seminar series that ICMA staff have offered in cooperation with the FEMA throughout the United States. As of mid-1987, well over 2,500 local officials, including city managers, elected officials, and emergency service agency personnel, have attended these seminars at the National Emergency Training Center (NETC) in Emmitsburg, Maryland, or in their home states (Hoetmer, personal communication, 1987).

The ICMA also conducted a national survey of local governments. It documented the structural diversity that earlier case studies--both their own and those completed by the Iowa State and DRC research teams--had revealed (Hoetmer, 1982). "Surveys were sent to the chief administrative offices (CAOs) in all counties, to municipalities 10,000 and over in population, and to a regional sample of one out of eight municipalities under 10,000 in population" (Hoetmer, 1983a, pp. 11-12). This totaled 6,238 governmental jurisdictions out of the nearly 40,000 local governments in the United States (exclusive of school districts and other special districts). Returns from 1,579 governmental jurisdictions (25.3% return rate) clearly revealed the structural variety that depicts emergency management at the local level. While nearly all (83%

of the cities; 93% of the counties) indicated that they had a disaster plan, the structural location of the **function** varied considerably.

> In cities, the city manager (reported by 22.5%), part-time emergency preparedness coordinator (18.8%), or the fire chief (16.2%) was most likely to have this responsibility. On the other hand, in counties, full-time emergency preparedness coordinators (44.3%) or part-time emergency preparedness coordinators (33.3%) were found to have the responsibility for emergency management. Only 32.7% of the cities responding had either a full-time or a part-time emergency preparedness coordinator (Hoetmer, 1983b, pp. 1-2).

Clearly, this survey revealed both the non-standardized quality that characterizes American society, and the unevenness regarding the relative priority given to emergency management (Drabek, 1985). Thus, the research team concluded that while some disaster planning was being done by local governments, it was hard to specify how comprehensive the planning was. A compilation of ideas received from the respondents highlighted four key policy recommendations.

1) Have a regular comprehensive preparedness program. Keep it updated and know it.

2) Appoint a coordinator who will develop an active program with clearly defined duties and responsibilities.

3) Establish an Emergency Operations Center will full communication capabilities.

4) Place a high priority on public education (adapted from Hoetmer, 1983a, p. 11; see also, Hoetmer, 1984).

It remains for future researchers to establish the degree to which local governments may respond to such recommendations, either because of recognized need or because of federal and state initiatives. The link between policies and actions taken at either of these two levels and alterations within local governments remains an important issue that few have explored (see Mushkatel and Weschler, 1985).

The United Research Services Incorporated Study (1983-1984)

In contrast to the multistudy programs that spanned several years at Iowa State, the Disaster Research Center, and within the International City Managers Association, a large-scale project was completed in late 1984 by sociologists at the University of Virginia (T. Caplow) and Brigham Young University (H. M. Bahr and B. A. Chadwick). Because their work paralleled the present study in several important ways, it deserves special comment.

Although both the large and small extremes were ignored, this trio and their associates interviewed 619 "community responsibles" in 15 mid-sized American cities. These ranged in size from 350,000 population to 18,000 (Caplow, Bahr, and Chadwick, 1984, p. 105). All were selected by FEMA staff so as to "...represent a wide variety of geographic, demographic, and administrative conditions" (p. 15). Since confidentiality was promised, the cities were not identified by name.

Consistent with the orientation and assumptions summarized in Chapter I, this team sought to design and implement a "network observation" approach "...in which observers move from one key person to another in an organizational network, along paths signaled by the informants themselves, until most of the key persons in the network have been identified and reached for face-to-face discussion" (p. 14). Beyond the local emergency management director, the team identified those involved in emergency management activities so as to map the network linkages and ascertain the degree to which the resultant patterns reflected their "IEMS mode."

This model of the "integrated emergency management system" posited three forms of social integration: horizontal, vertical, and functional. "**Horizontal integration** refers to the balanced involvement of

sectors of the local community in an effective community action network" (p. 18). Four sectors, or clusters of governmental or organizational positions, were discovered to be most relevant: 1) control (elected and appointed public officials primarily responsible for maintenance of order); 2) public service (public and private officials responsible for operating schools, hospitals, utilities, transportation, etc.); 3) voluntary (Red Cross, Salvation Army, United Way, rescue squads, etc.); and 4) industrial/commercial (managers of enterprises engaged in the production of goods and services for profit) (adapted from pp. 18-19).

A minimum of 40 positions were checked in each community (the maximum found was 45), although in many cases some positions were verified for non-inclusion. That is, while expected, some linkages were not present in certain of the communities. So as to assure that no potential linkage was overlooked, 14 positions were cross-checked.

> (1) Emergency Management Director; (2) Mayor and/or City Manager; (3) City councilman and/or County commissioner; (4) Police Chief and/or Director of Public Safety and/or County Sheriff; (5) Fire Chief; (6) Superintendent of Schools; (7) Hospital Superintendent; (8) Manager, Power Facility; (9) Manager, Water Facility; (10) Chamber of Commerce Executive; (11) Manager, Largest Enterprise; (12) Pastor, Largest Church and/or Ministerial Association Executive; (13) Red Cross Executive; (14) Salvation Army Officer (adapted from Caplow, Bahr, and Chadwick, 1984, pp. 220-221).

Diagrams were constructed for each of the 15 communities studied. These documented the linkage patterns (persons identified in response to the question: "who are the key people responsible for emergency management planning in this community?") across the 40-45 positions within each of the four sectors that comprised the horizontal form of community integration. When juxtaposed against an "emergency management effectiveness rating" (an aggregation of evaluations made by the interviewees and interviewers), the social maps of the 15 communities revealed minimal differences. Regardless of the degree to which the emergency management program was judged to be effective, most of the contacts were concentrated within the control sector. Curiously, though, four of the networks were incomplete within the control sector. "All four have low effectiveness scores, and the network with the most incomplete set of control sector relationships has the lowest score of all" (Caplow, Bahr, and Chadwick, 1984, p. 192). Thus, the patterns captured by this innovative methodology did not yield a simple or straightforward set of guidelines, although the team did offer a plausible interpretation.

> We conclude that, provided the relationships of the EMD with the control sector are fully developed, it does not matter very much, from the standpoint of operating effectiveness, whether other sectors of the community are excluded from the emergency planning and management network. Indeed, from the standpoint of administrative efficiency it may be advantageous to exclude them, and that may be why several highly competent EMDs in this sample do so. From the standpoint of mobilizing public opinion and community resources in a severe emergency, it is implausible to attribute any eventual advantage to those networks that do not extend beyond the control sector (p. 193).

Further analysis of these linkage patterns and other data collected through their interviews, produced a series of insightful conclusions regarding the structure through which emergency management functions are accomplished.

- The EM networks in all of the sampled communities are **centered** in the control sector, with secondary involvement of the public service sector. The voluntary and industrial/commercial sectors are **underutilized**.
- Emergency management planning is a **formal procedure** relying on written plans; it is not much influenced by friendship, or other informal ties.
- The effectiveness of emergency planning is greatly affected by a community's **recent experience**. Communities which have experienced a recent major disaster show superior network effectiveness. Among those without recent experience, communities which agree on the most likely potential disaster--usually flood or windstorm--show better network effectiveness.

- The people in local EM networks are much **less apprehensive** than the general public about the possibility of **nuclear attack**; they exclude it from their list of realistic threats. But they are **more apprehensive** than the general public about the dangers of **fallout** (adapted from pp. 9-10).

Turning from network and community features to an analysis of the individual managers who worked within the more effective networks, the team reached the following conclusions:

- More members were born and raised in communities elsewhere, **not** where they now work. This may reflect a greater degree of professionalization.
- Members had more experience and a wider range of local contacts.
- Members had written plans and evidenced greater familiarity with them.
- Members had more hands-on experience in managing floods and windstorms.
- Members were more familiar with federal and state emergency agencies and their respective procedures and policies (adapted from p. 186).

These observations bring us up to the information base that existed during the field study and telephone interview phases of this study. As will be evident as we work through the new data base, certain patterns and conclusions from these earlier studies were confirmed and, in some cases, redefined.

PART TWO

STRUCTURES FOR SUCCESS

CHAPTER IV

PERCEPTUAL VERSUS BEHAVIORAL STRUCTURES OF MANAGERIAL SUCCESS

What is a "successful" emergency manager? Depending upon a variety of factors, including one's philosophy of disaster mitigation, civil defense, human motivation and other such matters, the answer would vary considerably. This research **did not** try to answer this very complex question. By exploring both some behavioral and perceptual aspects of managerial success, however, five related issues were examined.

First, were there behavioral indications that would validate the Phase I selections? Recall that a nomination process was used to identify 12 local directors in communities of different sizes. All were **perceived** by individuals outside their community as being "reasonably successful". A series of basic tasks or program goals were identified and used to construct a crude index of goal attainment; this index provided a cross-check on the nomination process.

Second, this instrument was used to examine the variation within the Phase II (telephone interview) data set. Would certain structures or strategies be used more frequently by those managers who scored highest on these behavioral indicators of successful program implementation? The index was used to identify those directors who had been "less successful" so as to have a small comparison group.

Third, so as to have a context for the analysis, it was important to display some of the demographic characteristics of these local directors. Also, it was important to ascertain whether or not any characteristics of the directors--matters like level of training or length of time in the position--were associated with the goal attainment index.

Fourth, in contrast to this behavioral aspect of managerial success, the self-perceptions held by these directors regarding their effectiveness were examined. Such measures are used commonly as indicators of effectiveness (see Locke, Locke, and Dean, 1966, pp. 425-426). Thus, the pattern differences among the three criterion groups were assessed.

Fifth, and finally, through the interviews that were conducted with local executives in seven contact agencies in each of the 12 field sites, perceptions of managerial success were explored. That is, what did they see in the personality or behavior of the local emergency manager in their community that might be related to their success. This topic will be pursued in Chapter V. Four issues comprise this chapter: 1) behavioral indicators of success; 2) identification of less successful directors; 3) director characteristics; and 4) self-evaluations of effectiveness.

Behavioral Indicators of Success

As indicated above, it was desirable to validate the nomination process that produced the Phase I selections. As has been emphasized throughout this book, these 12 directors were **perceived** by those who nominated them as having fairly effective programs. They were not viewed as being the most successful collection of directors that might be assembled, but they would stand at least within the upper middle of the total spectrum. The approach to assessing goal attainment was kept simple so as not to deflect from the primary focus of study, however. More complex measures of program success should be developed by the social science research community, but within this context, the following procedure served the project needs. After reviewing several lists of

key tasks or program goals, four key areas were selected and questions were prepared for each: 1) written community disaster plan, 2) community vulnerability analysis, 3) emergency operations center, and 4) a simulation exercise within the past year.

Table IV-1 displays the results obtained for the directors interviewed in both Phase I and Phase II. While a crude measure, the profiles obtained clearly validated the Phase I selections. In terms of these four task areas, the 12 directors selected for field study evidenced high degrees of goal attainment.

Identification of "Less Successful" Directors

The responses to the four items pertaining to goal attainment were added together; that is, "no" responses were assigned scores of one and "yes" responses received a two. This created a score range of four to eight. The distribution of these scores is displayed in Table IV-2.

Those who had not accomplished two or more of these goals (scores of 6 or below) were designated as a "less successful" group of directors. Despite the small size of this sub-sample, use of this index permitted three comparison points: 1) Phase I directors (n=12); 2) the total group of Phase II directors (n=50); and 3) the small collection of "less successful" directors (n=7).

Director Characteristics

To provide context for the chapters that follow, it is important to understand the range of directors that participated in the study. In addition, differences and similarities in the three comparison groups require exploration. Table IV-3 presents data on nine director characteristics. Note that the sampling procedures used provided for even splits among the Phase I and Phase II directors across community size.

TABLE IV-1
GOAL ATTAINMENT ASSESSMENT

Task	% Attained*	
	Phase I	Phase II
1) Community Disaster Plan	100 (12)	98 (49)
2) Community Vulnerability Analysis	100 (10)	76 (38)
3) Emergency Operating Center	92 (11)	84 (42)
4) Simulation Exercise	100 (12)	80 (40)

*The number in parenthesis is the actual number of directors who indicated that they had accomplished the task listed; percentage based on exact number of directors who responded to the question.

TABLE IV-2
GOAL ATTAINMENT INDEX: DISTRIBUTION OF TOTAL SCORES

Goal Attainment Score	Number of Directors*		
	Phase I	Phase II	Less Successful
4	0 (0)	2 (1)	14 (1)
5	0 (0)	2 (1)	14 (1)
6	0 (0)	10 (5)	71 (5)
7	8 (1)	28 (14)	0 (0)
8	92 (11)	58 (29)	0 (0)

*The number in parenthesis is the actual number of directors who obtained the score listed; percentage based on exact number of directors who responded to the question.

TABLE IV-3
DIRECTOR CHARACTERISTICS

Director Characteristics	Number of Directors*		
	Phase I	Phase II	Less Successful
Community Size			
500,000 plus	33(4)	40(20)	29(2)
50,000-499,999	33(4)	40(20)	29(2)
49,999 or less	33(4)	20(10)	43(3)
Nature of Position			
Full-time with pay	67(8)	79(37)	29(2)
Part-time with pay	25(3)	17(8)	71(5)
Other	8(1)	4(2)	0(0)
Time in Position			
3 years or less	0(0)	42(20)	57(4)
4-10 years	83(10)	35(17)	43(3)
11 years or more	17(2)	23(11)	0(0)
Type of Appointment			
Civil Service	33(4)	36(16)	14(1)
Political	42(5)	57(25)	86(6)
Other	25(3)	7(3)	0(0)
Age			
35 years or less	0(0)	10(5)	43(3)
36-45	25(3)	27(13)	29(2)
46-60	58(7)	40(19)	14(1)
61 years or more	17(2)	23(11)	14(1)
Formal Education			
12 years	17(2)	10(5)	29(2)
13-15 years	42(5)	40(19)	43(3)
16 years	8(1)	15(7)	14(1)
17 years plus	33(4)	35(17)	14(1)
Member of Professional Org.			
No	0(0)	22(11)	43(3)
Yes	100(12)	78(38)	57(4)
Days of Em. Mgmt. Training			
24 days or less	25(3)	40(17)	83(5)
25-99 days	58(7)	28(12)	17(1)
100 days or more	17(2)	33(14)	0(0)
Member of Local Civic Group			
No	25(3)	54(26)	57(4)
Yes	75(9)	46(22)	43(3)

*The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

Also, the small sub-sample of less successful directors was not clustered into a single size category, but was distributed across this variable. None was in the extreme largest category, however--one million or more.

Since one of the research objectives was to contrast the interagency structures and managerial strategies used by directors in different sized communities, this was a study design requirement. This requirement produced an important distortion, however, because larger communities were overrepresented in the total data set in comparison to their relative frequency within the nation. While satisfying the design needs of the study, this marked overrepresentation of larger communities must be kept in mind as the results are reviewed. For every city the size of Dallas or county as large as Los Angeles, there are hundreds of jurisdictions whose population does not exceed 100,000 citizens. Equivalent numbers of cases facilitated some of the comparisons required by the research objectives, but did not reflect the typically used random sampling techniques designed to estimate political opinions or public attitudes. As noted in Chapter I and discussed further in the Appendix, the Phase II directors were selected through a multistage random sampling technique designed to produce a data set with equivalent numbers of comparably sized communities regardless of their actual frequency. Such is the logic of theoretically based sampling (Glaser and Strauss, 1967) and comparative case study analysis (Yin, 1984).

In contrast to community size, many of the other characteristics indicated important differences among the directors. Most Phase I directors held full-time positions. Indeed, one of the important strategies used by several of the directors, especially those in smaller communities, was to absorb additional responsibilities or, as in the case

of the James Valley Association (South Dakota), other jurisdictions, so as to justify a full-time position.

Most Phase I directors had been in their posts between four to ten years. Note that many Phase II directors had held their jobs for much longer or much shorter periods of time. Given the randomized selection procedure, this was expected. Many of the directors in the small sub-sample whose goal attainment was minimal were relative newcomers.

Reflecting the decentralized nature of emergency management within the United States--a matter with profound implications that we will return to later--there was considerable variation in the type of appointments these directors held. About one-half of both the Phase I and Phase II groups held political appointments, as opposed to civil service. All but one of the less successful pool of directors held political appointments, however.

The ages of these directors varied considerably, as was expected. A greater proportion of the successful directors (Phase I) were in the 46-60 year range, however. Of greater significance was the skewed distribution of the less successful sub-sample: they tended to be much younger.

Overall, the directors reflected varied educational backgrounds. All had completed 12 years of schooling and, therefore, probably were high school graduates. Yet, over one-third (35%) had enrolled in some type post-baccalaureate course work. In total, nearly one-half (48%) had completed 16 years or more of formal education. Given the age range and job tenure, this relatively high education level undoubtedly reflects the overrepresentation of larger communities. Reflecting their age, job tenure and other factors, fewer of the less successful directors were college graduates.

Nearly all were members of a professional emergency management organization (82%). While not included in Table IV-3, it is important to note that a significant number held memberships in two or more such organizations (78%). As might be anticipated, all of the successful directors (Phase I) participated in such associations, while three-fourths (78%) of the random group (Phase II) and just over one-half (57%) of the less successful directors did so. Furthermore, far more of the Phase I directors held offices in these associations within the past five years (Phase I--75%; Phase II--36%; Less Successful--29%).

Training levels varied also. Seven of the 12 (58%) Phase I directors had completed between 25-99 days of formal training in emergency management and two others (17%) had even more. While one-third (33%) of the Phase II directors had devoted over 100 days to emergency management training, 40% had less than 24 days. Thus, the Phase I directors were within the range reflected by the randomly selected group, but skewed toward the upper end. This pattern will be observed repeatedly throughout this book. In contrast, the less successful director subsample had far less training.

Although not included in Table IV-3, directors were asked about military training. Over two-thirds (69%) had been in the active military service and 29% had been members of a National Guard or military reserve unit. Most (75%) of the Phase I directors had active military experience, as did the random group (Phase II) (67%). Far fewer (29%) of the less successful directors had military experience.

About one-half (52%) of the directors were members of some type of local service or civic organization such as VFW, Lions, Kiwanis, or Chamber of Commerce. Larger proportions of the Phase I (75%) directors held such memberships than either the Phase II (46%) or less successful

directors (43%). Furthermore, much larger proportions of Phase I directors had held offices in these organizations within the past five years (58%) than either the Phase II (24%) or less successful directors (14%).

Several other characteristics were reviewed, but these either revealed no differences among the groups or differences that paralleled those already discussed. For example, all but one (92%) of the Phase I directors participated in a state association of local management directors. So too did most of the Phase II (77%) and the less successful directors (71%).

Similarly, the directors represented varied forms of constituencies. As described in Chapter I, this was one of the criteria used in the sampling procedures. Thus, city jurisdictions were represented (23%), as were county agencies (15%), combined city and county units (21%), and county agencies that had responsibilities for several municipalities (41%). The three comparison groups of directors were split rather evenly across these jurisdictional types although none of the less successful directors worked within combined city and county programs.

One of the Phase II directors had resided in his community for less than three years, but most of the directors were long-term residents. For example, 58% had lived in the community where they now were employed for over 20 years. A larger proportion of the randomly selected group (Phase II) (49%) had lived in their locale far more than 30 years (Phase I--25%; Less Successful--29%). Aside from this difference, the three comparison groups paralleled each other in length of local residency.

Finally, there were no gender differences among the comparison groups. While the number of females holding emergency management positions has increased greatly during the past decade, the total number selected for this study was too small to analyze separately. One of the

12 Phase I directors was female, as were four of those picked through the randomization procedures used to identify the Phase II group. None of the less successful director sub-sample was female. As the proportion of local emergency management agency directors who are female increases over the next decade, it will be important to assess potential variations in the types of managerial strategies that are used. This information, like that derived from this study, may have useful training applications.

Self-Evaluations of Effectiveness

The questionnaire that was left with each director after the interview contained a listing of 13 items that reflected a range of tasks commonly performed by local emergency managers. To the question, "How effective do you feel you have been in accomplishing these to date?" five response categories were provided: 1) very effective; 2) moderately effective; 3) somewhat effective; 4) somewhat ineffective; and 5) not applicable. The items included such tasks as: "working with volunteer organizations on emergency management needs," "establishing a notification system of key officials for emerging situations," and "planning for chemical and toxic substance spills or accidents." A complete listing of all 13 items appears as Table IV-4 which also displays the responses obtained from the Phase I directors. Of course, for those directors interviewed over the telephone (Phase II), this questionnaire was mailed to them. Their responses, along with those obtained from the seven directors that comprised the "less successful" group are presented as Table IV-5.

Inspection of these two tables revealed patterns that paralleled those discovered with the goal attainment items. Phase I directors perceived their efforts to be reasonably effective--a bit more so than those selected through the randomization procedure used for Phase II. But clearly, many of the directors in the Phase II sample perceived their work as being effective. As would be expected, the "less successful" group indicated somewhat lower levels on this self-evaluation, and the Phase I selections were validated further. All such instruments, of course, have an inflation bias--who will rate their work as ineffective? Given the high degree of rapport established with the Phase I directors, it is probable that they registered more candid views on this instrument than those surveyed over the telephone. Hence, while these self-perception items did validate the three comparison groups, this biasing process undoubtedly neutralized the range of differences.

Some directors viewed several of these areas as non-relevant to their position. In some cases, this reflected the division of labor among agencies regarding the structural location of the emergency management function. For example, a law enforcement agency was the designated agency for housing the emergency operations center, and the director indicated that this activity really was "not applicable" to his agency as it functioned within that community.

Note, however, that two of the items were viewed as "not applicable" by a sizable percentage of these directors: 1) crisis relocation planning, and 2) advocacy of flood insurance. While CRP may have reflected a community conflict or local government decision, reluctance to define flood insurance advocacy as part of the responsibility of this position could be interpreted as indicating ineffectiveness. The same could be said for those few directors who perceived "working with volunteer organizations" as being "not applicable" to their job.

TABLE IV-4
SELF EVALUATIONS OF EFFECTIVENESS: PHASE I DIRECTORS

Item*	N**	1	2	3	4	5
1) Establishing emergency communication capability	12	42 (5)	50 (6)	8 (1)	0 (0)	0 (0)
2) Establishing an emergency operating center for local government	12	67 (8)	17 (2)	8 (1)	8 (1)	0 (0)
3) Developing and conducting em. management training for public	12	17 (2)	42 (5)	33 (4)	0 (0)	8 (1)
4) Giving information about emergency management to mass media	12	33 (4)	33 (4)	33 (4)	0 (0)	0 (0)
5) Working with volunteer organizations on em. management needs	12	42 (5)	25 (3)	33 (4)	0 (0)	0 (0)
6) Establishing a notification system of key officials for emergency situations	11	36 (4)	46 (5)	18 (2)	0 (0)	0 (0)
7) Testing community organization readiness through drills and simulation exercises	11	18 (2)	64 (7)	9 (1)	9 (1)	0 (0)
8) Building a multi-hazard community warning system	11	18 (2)	36 (4)	27 (3)	18 (2)	0 (0)
9) Planning for chemical and toxic substance spills or accidents	11	18 (2)	36 (4)	27 (3)	18 (2)	0 (0)
10) Completion of crisis relocation plans	10	20 (2)	10 (1)	10 (1)	30 (3)	30 (3)
11) Conducting a community vulnerability analysis	10	60 (6)	30 (3)	10 (1)	0 (0)	0 (0)
12) Implementing hazard mitigation programs	11	9 (1)	18 (2)	55 (6)	9 (1)	9 (1)
13) Advocating the purchase of flood insurance	11	9 (1)	9 (1)	36 (4)	18 (2)	27 (3)

*Response categories were: 1 = very effective; 2 = moderately effective; 3 = somewhat effective; 4 = somewhat ineffective; 5 = not applicable.

**The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE IV-5
SELF-EVALUATIONS OF EFFECTIVENESS:
PHASE II VS. LESS SUCCESSFUL DIRECTORS

Item	Phase II Directors N**	1	2	3	4	5	Less Successful Directors N**	1	2	3	4	5
1)	41	46 (19)	42 (17)	10 (4)	2 (1)	0 (0)	5	40 (2)	20 (1)	20 (1)	20 (1)	0 (0)
2)	41	49 (20)	34 (14)	7 (3)	2 (1)	7 (3)	5	20 (1)	40 (2)	0 (0)	20 (1)	20 (1)
3)	41	27 (11)	32 (13)	24 (10)	5 (2)	12 (5)	5	20 (1)	20 (1)	20 (1)	0 (0)	40 (2)
4)	41	42 (17)	34 (14)	10 (4)	10 (4)	5 (2)	5	20 (1)	40 (2)	0 (0)	0 (0)	40 (2)
5)	41	32 (13)	46 (19)	12 (5)	5 (2)	5 (2)	5	0 (0)	40 (2)	20 (1)	20 (1)	20 (1)
6)	41	61 (25)	34 (14)	2 (1)	0 (0)	2 (1)	5	60 (3)	40 (2)	0 (0)	0 (0)	0 (0)
7)	41	32 (13)	34 (14)	12 (5)	10 (4)	12 (5)	5	0 (0)	60 (3)	0 (0)	0 (0)	40 (2)
8)	41	22 (9)	29 (12)	17 (7)	22 (9)	10 (4)	5	0 (0)	40 (2)	20 (1)	40 (2)	0 (0)
9)	41	34 (14)	49 (20)	17 (7)	0 (0)	0 (0)	5	20 (1)	60 (3)	20 (1)	0 (0)	0 (0)
10)	40	23 (9)	15 (6)	18 (7)	18 (7)	28 (11)	5	40 (2)	20 (1)	0 (0)	20 (1)	20 (1)
11)	41	39 (16)	44 (18)	10 (4)	5 (2)	2 (1)	5	20 (1)	20 (1)	20 (1)	40 (2)	0 (0)
12)	41	10 (4)	39 (16)	32 (13)	20 (8)	0 (0)	5	0 (0)	40 (2)	20 (1)	40 (2)	0 (0)
13)	41	7 (3)	22 (9)	39 (16)	2 (1)	29 (12)	5	0 (0)	40 (2)	0 (0)	20 (1)	40 (2)

*See Table IV-4 for the items and response categories used. Total number varied because of incomplete responses.

**The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

CHAPTER V

PERCEPTIONS OF SUCCESSFUL MANAGERS

The Phase I field site studies provided a way to explore a different dimension of managerial success than what can be tapped by self-evaluations or task analyses. As noted in Chapter I, in each community executives were interviewed in six to ten "contact agencies." These individuals--fire chiefs, county commissioners, Red Cross directors, and the like--form critical linkages that collectively spell the difference between programs with high response capacities and those that will fail in time of disaster. How do such officials perceive successful directors of emergency management agencies? What qualities do they notice in the behavior of such directors that might contribute to their success?

After the study and its objectives were introduced, each "contact agency" representative was asked the following question:

> To get started, let me begin with a very general question. From your vantage point, what is it that makes **(local director's name)** a good agency head? What kinds of managerial strategies have you seen him using to build his program here in **(name of city or county)**?

Reflecting the uneven picture of local civil defense agencies that earlier studies documented (Quarantelli, 1985; Hoetmer, 1983a, b), many individuals referred to the past. That is, the perception that the current director was successful often stemmed from the exceedingly poor performance of his predecessor--maybe two or three of them.

Case histories like the following document the context within which many local emergency management directors are working. Such contexts constitute areas of opportunity for program development.

> We had a previous director for about 10 yrs. He was retired military and the only thing that he talked about was 'the Russians are coming, the Russians are coming,' and emphasized the importance of civil defense. In general, he was ineffective; everyone laughed at him. After he left that office, it was turned over to the person who had a small unit within the County pertaining to noxious weeds. So the person was half-time noxious weeds and half-time civil defense. By and large, the person worked on noxious weeds. Dissatisfaction from the state was presented to the county commissioners which resulted in a reassignment for a short time to the county sheriff's department. It was part of my division, but as you might expect, we really never did much with it. We didn't have the time and the sheriff made it very clear that the primary thing that we were to do was to grab the federal money and let it sit. When [the local director] took over he began trying to do something with the office. (Lieutenant, County Sheriff's Office)

The lesson is clear: **new agency directors should develop a sense of the history of the emergency management program in their community.** Perceptions held by personnel in other agencies must be ascertained. Depending upon the content of these perceptions, specific strategies for nurturing support networks must be developed.

Upon reviewing the full range of responses obtained from the 79 contact agency representatives, various themes reappeared. What is it that makes a good emergency manager? From the standpoint of these organizational executives, three areas were important: 1) professionalism, 2) individual qualities, and 3) emergency management activities.

Professionalism

Four different forms of professional behavior were noted. First, many directors were perceived as occupying a unique structural niche--a coordinator function--within the complex array of agencies and groups that constitutes the disaster response capability of the community. Second, knowledge was stressed by many contact agency personnel. Third, commitment was seen as the outstanding attribute in many directors. Fourth, and finally, some directors were perceived as being recognized by professional groups external to the community. Each of these themes

is illustrated by the following quotations that were extracted from the field interview notes. Since only one of the 12 directors who participated in Phase I was female, pronouns in the quotations were modified to protect her identity.

Coordinator Niche

The Phase I emergency management directors were perceived to be coordinators, not dictators. Enactment of this form of professional behavior reflected numerous sensitivities. Different methods were used, but the net result was the legitimization of a unique structural niche. Terms like integrator, mediator, or designer of compromise solutions were used by the executives in the various contact agencies when they described the local emergency manager in their community.

> It is his attitude toward work. He consistently says, lets see how WE can improve the system. (Red Cross Director)
>
> _____ follows a philosophical principle of always trying to build on the strengths that already exist in the organizations that he has to relate to. (City Public Works Director)
>
> The primary strategy that _____ uses is to try to lead through suggestion. (Captain, County Sheriff's Office)
>
> He knows how to plant an idea and then let it mushroom. People don't become defensive or offended when he presents ideas. It's very clear as he presents them, that he knows what he's talking about. But he's able, then, to not get in a panic situation about the development of the idea. Rather he can sit back and let people ponder it, let the idea mushroom and in that way see other people become involved in the implementation or at least the participation of getting the idea across. (City Police Chief)
>
> The kind of strategy that he's used is in getting small groups of people together. He seemed to have appeared on the scene and he wanted to be sure that he knew these people as individuals and then brought them together in small groups. As the small group, then, became acquainted with each other, that small group became a work group and then he would bring people together across those small groups...over time he built a very large number of networks that when you look at the whole thing from the standpoint of what exists in the county, it's an amazing accomplishment. (Hospital Administrator)

> _____ proceeds quietly and tries to plant ideas with people and then have other people buy into his program, rather than coming around and constantly brow-beating people. When he started in that job, in part because of his predecessor, he had great difficulty in getting the departments to help. But very quietly and over time, he has now been able to get people committed. By and large the agencies here are committed to him and to the program because of the kind of style he has used and developed. (City Department of Public Works, Director)
>
> ...the identification of people who take emergency preparedness seriously and making them aware of each other so as to have a feeling that they are not isolates or odd-balls, but rather are part of a larger constituency. (Business Executive)
>
> ...frequently in meetings he will sit and listen...he then will integrate what is being said from the other people, each of whom are proposing in a fairly dogmatic way a particular policy alternative. Frequently _____ will serve as the integrator to come up with a compromise solution. (City Council Member)
>
> He has confidence or at least he communicates with us a sense of confidence that really is a reflection of his recognition that he regards us as the experts in this area. He is the interface and communicates a sense of confidence in us as experts. He asked us to come over there and made us feel very welcome when we got there. I guess in essence it is a confidence building thing that has made him successful in that particular job. (Business Executive)
>
> ...in the kind of exercises that _____ does generally, it is not done by directive, it is rather done by _____ going around and talking to people and through his own good will, he is able to get people to become involved rather than relying on a type of style that requires the assistant city manager to send down a directive that people must participate in this particular exercise. (Assistant Chief, City Fire Department)
>
> _____ doesn't want to be the boss, he wants to put things together so that it works. He doesn't try to be the sheriff, he doesn't try to be the fire district, he perceives his role of that as coordinator and as a result he is behind the scenes serving as coordinator not out front trying to take the limelight. (County Sheriff)
>
> First is his non-threatening style....he states explicitly that he is not going to run the agencies. He is not going to try to run their agencies, they have to do their own jobs. Thus he defines a very clear role of coordination for the civil defense function, rather than emphasize or suggest that in time of emergency that the civil defense organization will

try to run or direct any of the operational agencies. (City Public Safety Director)

Specialized Knowledge

For years now, occupational groups in the process of becoming professionalized have identified special forms of knowledge that they alone possess (Dingwall and Lewis, 1983). While the type of knowledge varied, these directors were perceived as having unique and special areas of knowledge that legitimated their credibility. The following quotations illustrate this theme.

He's got good knowledge; he's got knowledge of people and knowledge of things. (City Fire Chief)

_____ is very knowledgeable, both in terms of technical information about emergency management but also very knowledgeable about the emergency services agencies...he's a capable coordinator, but his coordinating skills rest very much on his long-term knowledge of the agencies. (City Fire Chief)

He's a highly trained professional. He is a person who benefits from both the formal education that he's had but also the kind of self education that he has done since he's taken on this job. (County Commissioner)

...his participation in various seminars and conferences, like conferences he's gone to with FEMA. He is keeping at the forefront of new information in the emergency area. (City Department of Public Works)

...a lot of schooling. _____ has attended a lot of schooling and has built a sense of expertise. (Business Executive)

He is informed, he is really the resident expert in this area. (City Fire Chief)

_____ is exceedingly knowledgeable. He is knowledgeable regarding the responsibilities of government as well as the constraints of government. And most important of all, he knows the regulations and he knows the appropriate legislation. He knows the agencies, who is to do what, what legislation exists, what legislation has been proposed, what legislation is pending. He understands what legislation will have a particular kind of impact on a particular type of emergency service. The man simply studies so that in committee meetings he is able to both, make reports as well as to spontaneously indicate that a particular change, if adopted is going to have a particular change on something else. (Business Executive)

Commitment

Through a wide variety of actions, these directors propagated an image of commitment. Despite miniscule budgets and minimal authority, many contact agency personal were impressed with the "stick-to-itness" of the local emergency managers selected for Phase I. Their credibility, in part, stemmed from this quality.

_____ really believes in emergency preparedness. (County Commissioner)

_____ is sincere. His sincerity is conveyed and gives him a high degree of credibility. (Federal Agency Official)

_____ has a reputation for getting a job done. Once he's been assigned to a job, people in the various agencies know it will get done. (City Fire Chief)

_____ lives and breathes the office. Secondly he is highly reliable, if something goes down he gets it fixed. If he says he'll do something, he'll get it done one way or another. (County Sheriff)

He has a lot of tenacity. He stays interested in the job. A lot of people that I've seen in jobs like this, indeed, others that we've had right here in this area, have had a lot of fire for a very short period of time but then die off. _____ has not done that. (City Public Works Director)

He's like a ferret. He has a lot of tenacity. He gets started on something and simply doesn't give up. (Red Cross Director)

...when he makes commitments you can trust he will follow through. (Red Cross Disaster Services Coordinator)

It is his persistence. That is, he bugs people to get the job done. And people know that if he can't get it done one way, he'll do an end run to get the job done some other way. It is his persistence that is really critical. (County Public Works Director)

He knows how to manipulate the system. He always begins with the premise that there is a way and it's up to him to try and manipulate the system in the positive sense of that word so as to find that way. (County Health Services, Medical Disaster Coordinator)

External Recognition

Several Phase I managers had made it known that they were recognized by their peers or by officials in agencies outside their community. Usually communicated very subtly, the demand for their services or participation produced a halo effect. This recognition, in turn, enhanced their credibility at the local level.

> _____ is also known at the state level. He has used this quality to help the town. (County Public Works Director)

> He is very well respected among his peers. He's always being carted off somewhere. He's frequently being taken to Washington and indeed with the travel budget that we have here, anytime somebody in our city government is telling us that they are going to Washington and Washington is paying their way, it certainly makes us aware that he is somebody special. And he makes these kinds of things known when they occur. (City Department of Public Works, Director)

> _____ indicated that he has been to several national meetings of people involved in civil defense. At these, _____ stands very high, both in terms of his leadership qualities but also in terms of his technical knowledge. This image is reinforced at state and regional meetings too; _____ sees to it that this council member is aware of those meetings, that his accommodations are taken care of and that he knows at least a year in advance when those meetings are coming up. (City Council Member)

Individual Qualities

Four themes were identified that reflected certain qualities of the individual. First, a wide variety of these were personality attributes. Qualities like diplomacy, tact and enthusiasm ranked high. Second, communication skill was stressed. Indeed, it was the most frequently noted single skill that these successful directors were perceived to exhibit. Third, every one of the 12 directors was perceived as possessing some unique skill. It didn't seem to matter what the skill was--a prior media or military experience, ability to work with volunteer groups or even a building materials background. The critical thing was that the

skill was **perceived** as being relevant to the director's capacity to be an effective manager. Thus, these directors maximized whatever personal resources they had by virtue of previous occupational experience. Fourth, and finally, some of the 12 directors were perceived as being successful in part because they had managed an actual disaster event rather well.

Personality

This category of individual qualities was very diverse. Interviews in additional communities might identify a limited number of such characteristics, however. Qualities noted most frequently by those interviewed in the 12 Phase I communities were organizational ability, human relations skills, enthusiastic attitude, diplomacy, self-motivation, and control under stress.

> The first thing that comes to mind is his organization. He has an ability as an organizer (Red Cross Director)

> A high human relations capability. A real perceptiveness in dealing with other people. The critical thing is to not be autocratic but not be layed back. But rather to be a person who is authoritative without being authoritarian. A person who is up front, who has high credibility. A person who is not interested in protecting his job but who believes in his product. A person who is enthusiastic and makes that enthusiasm rub off onto other people. (City Fire Chief)

> He evidences a great deal of enthusiasm. People generally find him very pleasant, very cheerful to work with and yet he has an undertone of aggressiveness so as to move the committee along. (Hospital Disaster Coordinator, Administrator)

> He has an enormous ability to deal with people at all levels. He can relate to an assistant in the police department and turn right around and interact with a member of the Board of Supervisors as if they are at the same structural level. (Assistant County Administrator)

> _____ is very diplomatic. He is well spoken, well dressed, has a good presence about him in front of other people and on a one-to-one basis. He also is an honest person. (County Commissioner)

Most importantly, he's a good listener. (City Fire Chief)

The man is self-motivating. (City Public Works Director)

The first thing that comes to mind is his organization. He has an ability as an organizer. (Red Cross Director)

He's also a juggler. He can be involved, it seems like, in many, many things all at the same point in time. (Red Cross Director)

...the main thing is that he doesn't panic even under stress. He has a calmness and he therefore sets the pace for other people. In fact when I was thinking of somebody for this job, I felt that I didn't want any Type A personalities because of their propensity to overact. I'm too much that way myself, so I needed somebody in that job who would have a mood and tone of calmness. (Mayor)

Communication Skills

While new directors might not realize it, development of communication skills could assist them a great deal. At least that is the clear perception held by personnel in the contact agencies within the 12 Phase I communities. Note how they emphasized different forms or types of communication skills in the following quotations.

_____ is fluent. He is a very good public speaker. (Captain, County Fire Department)

_____ made a presentation at the local Rotary Club. He was a very effective speaker. I remember that particular speech very well. (Business Executive)

He also keeps people very well supplied with information. He keeps them informed of FEMA policies, changes in policies and directions that FEMA is taking. (Captain, County Sheriff's Office)

The person in a job like this has to be able to speak convincingly. They have to be able to brief people like me, as a commissioner at a work setting. They have to have a very clear ability to communicate with policy level people. (County Commissioner)

He's been able to substantiate his requests. He doesn't just come in with ideas about equipment needs or resource needs but is able to provide quite a bit of substantiation as to why those are needed. (Hospital Administrator)

When he makes a presentation before the commissioners, he has the information written out. He has various items with copies for all of the commissioners and then proceeds to present the argument in a very effective manner. He's very effective at speaking....He organizes his ideas, prepares thoroughly and proceeds to explain his case to the commissioners with documentation so that they can follow the oral presentation. (County Commissioner)

Unique Personal Skills

Within this perceptual set was a dimension of unique personal skills. These varied from director to director. The actual content or skill didn't seem to matter, however. The critical element was that each director had some type of experience base or skill that others perceived as being a helpful resource to them in job performance.

_____ was with the media, apparently a weatherman. He knows how to articulate while with the media. He knows their deadlines, understands their situation. (County Commissioner)

_____ has a military background. The training that he received in the military lends itself to planning for disaster. (County Sheriff)

His wife is in EMS and is involved in various kinds of EMS associations and ambulance programs and so he sees the medical side from her viewpoint and they mutually reinforce one another. (County Fire Chief)

He brought professionalism to an area where it didn't exist in our community before. That's a very key quality. The man is a professional. He was a professional in his previous job and he brought that professionalism with him to this particular area. (Business Executive)

_____'s knowledge of building contracting turns out to be a very important asset, he knows what to ask for and he knows how to use the resources. (Federal Agency Official)

The most important thing is community involvement. Whenever you think of _____, you think of somebody who is highly involved in the community. I mean, before I ever knew about him in his civil defense role or before he ever got in civil defense, he was the guy that was out organizing the parades. He's very involved with AM-VETS and they would have their parades at different times and you could always see _____ out helping get the parade organized. (Business Executive)

Disaster Experience

Credibility can be attained in many ways. For a few of the Phase I directors, actual disasters had provided them with opportunities to prove their capabilities--both personal and organizational. These successful responses comprised crucial aspects of the images that contact agency personnel held of the local directors.

> You know that even if he's not there, his people are out there and that as far as gathering information he's going to get the job done. If he doesn't know something, he will tell you he doesn't know and if he tells you a situation is such and such you can rely on what ever it is that he says. (Assistant County Administrator)

> He is not an overreactor and so when an emergency occurs, he has a quality of serenity and calmness that is very important, especially in a highly politicized complex bureaucracy which sometimes seems to be overfilled with overreactors. (Assistant County Administrator)

> _____ had experience with a variety of other disasters. These had had a lasting imprint in terms of the awareness of the mayor and the council. (City Public Works Director)

Emergency Management Activities

Three themes were centered around specific emergency management activities. First, many of these local organizational executives highlighted the approach to disaster planning used by the director. Consistent with the broader philosophy of comprehensive emergency management that was noted in Chapter II, they perceived their local director as being successful because he/she had implemented this approach. Second, many described how the visibility of the agency, and at times the director, had been increased within the community. Finally, a wide variety of specific task-related accomplishments were noted as a distinctive quality.

Approach to Emergency Preparedness

Several of these executives emphasized a substantive dimension--an all hazards approach to emergency management. The quality they viewed as most relevant to the director's success was this programmatic shift. Most maintained that civil defense was a legitimate function of the agency, but they stressed the more immediate and probable demands for community responses to non-military disasters. This newer and more comprehensive approach to emergency management highlighted the distinctiveness of the local director.

As was noted in Chapter II, enemy attack preparedness is mandated by federal law. Hence, these perceptions contrast sharply to the priorities advocated by some federal officials, especially those directly involved in war-related programs. Such is the structure of strain within the emergency management system.

> He changed the title of the agency and the title of his position. Previously it had been rather narrowly defined as a civil defense office. The broadened scope that emergency services refers to has been very important in the community definition of what this agency is supposed to do. (Red Cross Director)

> He has kept the term civil defense but has seen the program drift so as to focus on natural disasters rather than the civil defense mission. (Mayor)

> Right now he's working on a plan for all types of disasters and this has been a major change that he has brought. To emphasize civil defense as a type of planning for all phases of disasters, all types of disasters, rather than only a war-related type situation. (County Commissioner)

> He doesn't confine himself to hurricanes. He shows how planning for hurricanes can then develop over into planning for hazardous materials. And this is a very important sales point regarding the type of chlorine problem, for example, that we have. So he can go to the administration, lay out the facts, and indicate the kind of incidents that could occur. (City Fire Chief)

> We ought to try and realize that we've got a hurricane problem and we ought to build a capability for evacuation. That capability for evacuation can be developed, it can be

made in the public's eye to be credible and once being credible, we then can use some of our planning to help us with a problem should we ever have a nuclear war case. But if we started with nuclear war, we would find ourselves with no capability and no credibility in terms of the public. (County Commissioner)

Visibility of Agency or Director

In contrast to the general approach to emergency management, some officials stressed the visibility of the director. These directors recognized the costs of physical isolation, so rarely did a day go by that any of them remained in their offices for the entire day. This was noticed and appreciated by those in linkage agencies.

> This is the first director that we've ever had in this community who has had any kind of visibility. (Lieutenant, County Sheriff's Office)
>
> _____ isn't just sitting in his office. He seems to be around the town popping into various offices, talking to people and constantly attuned to the problems that they are having. (City Fire Chief)
>
> He acquired a good location. His location in the sheriff's office puts him in close physical proximity to a variety of people. (Red Cross Director)
>
> He has made people aware of civil defense and it's the awareness of that office that perhaps is the most important way that he's built his program. The other three directors, and I knew all three of them, simply didn't do very much. (City Police Chief)

Task-Related Activities

Although the content and specific activities varied considerably, the defining perceptual element in the minds of some contact agency personnel reflected programmatic activities. When they thought of the local emergency management agency director, they immediately pictured a piece of equipment he had obtained for them. If not equipment, it was the experience of participating in a well-designed exercise. Note how these themes were articulated.

> He knows how to secure state and federal resources. (County Commissioner)
>
> He has acquired a substantial amount of equipment that has strengthened the capabilities of other agencies, including the Red Cross. (Red Cross Director)
>
> He started getting things for the fire department, as well as for several other agencies. (Red Cross Director)
>
> ...when he needs something from [name of firm] he will go to that liaison person and if he can sell the liaison person on the mission, then that liaison person will actually be the person who will contact people within [name of firm]. It is his effective use of these liaison people, in selecting them, in developing a good relationship with them and then of respecting their advice in terms of what is workable, what is reasonable. (Business Executive)
>
> He's been very effective here in offering various kinds of services, especially training programs in terms of radiological monitoring, for example, for the fire departments. He provides us with help, with service, and is always cooperative in trying to help us solve our problems. (County Fire Chief)
>
> _____ gave data for the commissioners to reach a series of orderly decisions as to what the siren situation would need to be in the future. As a consequence, at a time of budget retrenchment, this presentation got _____ four sirens. But equally important it locked the commissioners into a series of commitments for subsequent years down the road in terms of where additional siren money would have to be forthcoming. (County Commissioner)
>
> _____ has helped over the years the hospitals, when they have to do a disaster drill. _____ doesn't try to take it over, but he is able and willing to assist them a great deal. He is very thorough in providing them with the kind of help that they ask him for. (Hospital Administrator)
>
> We didn't have just an exercise, but most importantly we had a critique. And in that critique it became clear to me that there had been a lot of learning that took place in the planning of the exercise, thus it's a three-step process. You plan the exercise, you do the exercise, and thirdly you critique the exercise. And if you approach it in that way then you find that you're able to build a sense of credibility that probably is not possible any other way. (County Commissioner)
>
> You learn lessons so much better when you have these kinds of testings. What he was able to do was get the top administrators involved. We got very involved in that exercise and the point is that I couldn't believe that in the exercise

he also had the municipalities involved. (County Commissioner)

Obviously, these perceptual domains should not be viewed as the 11 steps to success. Furthermore, no single director reflected all 11 of them. However, they provide a broad basis for reflection by anyone trying to fill such a position. An important new area for research is indicated since perceptions like these have not been examined previously. The capacity of emergency management directors to behave in such a manner so as to nurture these perceptual sets probably constitutes a key ingredient in judgments of success, credibility, and legitimacy. As will be described in detail in the chapters that follow, these 12 successful directors had many structures and strategies in place; these were not simply instances of effective "impression management". However, the construction and nurturing of such images is a critical route to legitimacy.

CHAPTER VI

QUALITIES OF INTERAGENCY STRUCTURES

This chapter has three sections. First, there is a brief explanation of the rationale for, and measurement of, interorganizational networks. Within the second section are data depicting five dimensions of interorganizational relationships: 1) frequency of director contact; 2) structural location of contact point; 3) degree of formalization; 4) number of joint programs; and 5) amount of overlapping memberships. Third, and finally, two outcome qualities will be described: 1) domain consensus and 2) perceived coordination.

The Rational for and the Measurement of Interorganizational Relationships

As noted in Chapter III, previous research underscored the variability that characterizes the structural location of the emergency management function within local governments (see Hoetmer, 1983a, b). Relatively speaking, American society is decentralized with regard to emergency services for the civilian population. Both the Phase I and Phase II interviews further documented this fact, but also provided additional important insights into the processes that constrain the decisions made by local government officials regarding the structural placement of the emergency management function.

Reflecting a push by the local director and the interest of one department head, within the city of Dallas, the emergency management function is nested within the Streets and Sanitation Division. In contrast, the Sedgwick County Office of Emergency Preparedness serves both the county and the city of Wichita. In Groton, Connecticut, the office functions within the township's 911 system. Townships are political

units found in some east coast states that somewhat parallel county level units of government. In five counties that lie within the James River Valley in eastern South Dakota, a single full-time paid director effectively orchestrated a multicounty agency that supported volunteers who tried to stimulate emergency preparedness activities within several of the small towns scattered across acres of rolling prairie lands and corn fields.

There are at least five fundamental insights that flow from these examples. First, the autonomy of local governments must be recognized explicitely. As May and Williams (1986) demonstrated so effectively in their examination of the implementation of four FEMA-sponsored programs, top down strategies are destined to fail. Although there are important differences, directors of local emergency management agencies are somewhat analogous to school superintendents. As Meyer and Scott (1983) demonstrated for local school districts, school superintendents must be responsive to the views of local school board members whose authority derives from state law and the fact of their election, as well as to state bureaucrats, local interest groups, and individual parents. Because of the loosely coupled quality that characterizes the intergovernment system, the emergency management system reflects parallel strains and their consequences.

Second, there are modal patterns. For example, many county level organizations within jurisdictions that do not exceed a population base of 200,000, operate as relatively autonomous independent agencies. However, if the bulk of the citizenry reside within a single city, like Pocatello within Bannock County, Idaho, the inherent political conflicts between city and county officials may be more strained. Such strains

comprise an important structural constraint that local directors must deal with somehow.

Third, the political histories of local governments--and at times actions taken by individuals who have established a power base--determine the structural location of the emergency management function. Hence, an agency head may have a personal interest in this function, acquire it, and proceed to support the emergency management director far in excess of what might be forthcoming if the agency were placed elsewhere. The converse happens too: as one Sheriff's Deputy put it: "...the primary thing that we were to do was to grab the federal money and let it sit." The "it" in this case, of course, was the emergency management office.

Fourth, there is remarkable heterogeneity among the agencies that perform the emergency management function. They vary from programs pushed by a single individual who voluntarily serves in a role identified and legitimated by local government, to relatively autonomous agencies. These may be placed structurally within a larger emergency services unit such as a law enforcement or fire agency, or function with structural independence. There is no single uniform design; given local community variation in political organization and power differentials among agencies, there can not be. Local directors must seek to locate their agency within the structural nest wherein it will be maximally supported--and protected. There is no inherent "best" location except as is dictated by community history, existent emergency agency support levels, and power differentials.

Finally, structural location is related to, but in no way is the primary determinant of, the central variable affecting response capability. This variable is the integration of the multiorganizational

network that comprises the actual disaster response system (Drabek, 1983a). Reflecting the scope and unanticipated quality of the demands generated by large-scale events, be they hurricanes, floods, or tornadoes, the degree of interdependence among these agencies is altered during disaster responses (Dynes and Aguirre, 1979). Although short-lived, agency autonomy, which serves important functions in day-to-day community life, must be reduced temporarily so as to allow for the emergence of an alternative multiagency organizational design that is more appropriate for the task structure created by the disaster (Kreps, 1985).

Logically following from these conclusions is a basic axiom: the effectiveness or success of local emergency management agency directors depends on the degree to which an integrated multiagency interorganizational system exists. It is the creation and nurturing of this larger system that the coordinator function is designed to accomplish. What is less clear, simply because only recently have social scientists begun to study such interorganizational systems (see Aldrich, 1979; Rogers, Whetten, and Associates, 1982), are the qualities or attributes that characterize such networks, and the strategies for their measurement (see Gillespie **et al.**, 1986, for detailed discussion of measurement issues).

Elaborating upon a procedure that proved useful in describing post-disaster emergent multiorganizational networks (see Drabek, 1983a; Drabek **et al.**, 1981), each agency director was presented with a list of eight "agency types", e.g., law enforcement, fire. In the telephone survey (Phase II), six of the eight types were listed in the questionnaire and the director was requested to open the questionnaire at this point in the interview:

> Would you please get the questionnaire I mailed and turn to page 3? As a point of reference, I need to identify the names of one agency in each of these categories.

As a specific agency was selected--using the criterion of "who do you work with most closely"--each director was instructed to write down the name of the organization selected and to use it consistently as the reference for a series of questions designed to tap various features of interorganizational relationships. In the Phase I field studies, these organizations served as the contact agencies wherein interviews also were conducted. It has been proposed that **the creation and nurturing of these interorganizational systems is the primary managerial strategy used by successful directors.** The following data sets permitted the most thorough examination of this assumption that has been made to date.

Five Dimensions of Interorganizational Relationships

Previous studies have examined a wide variety of dimensions thought to capture differing aspects of the relationships among organizations (see Hall **et al.**, 1977; Aldrich, 1979; Morrissey, Hall, and Lindsey, 1982). After reviewing these and the dimensions examined in a prior study of emergent multiagency networks following six major disasters (Drabek **et al.**, 1981), several qualities were selected. Discussion of five will comprise the core of this chapter: 1) frequency of director contact, 2) structural location of contact point, 3) degree of formalization, 4) number of joint programs, and 5) amount of overlapping memberships.

Frequency of Director Contact

With the list of specific agencies in front of him or her, each director was asked to identify the category that best typified the frequency with which they had direct contact with personnel in each or-

ganization. The category set was as follows: 1) "no contact," 2) "a few times a year," 3) "about once a month," 4) "every few weeks," 5) "about once a week," and 6) "several times each week."

Table VI-1 presents a summary of the responses obtained in the 12 field studies. Note that responses were aggregated for all of the 12 directors, as were the responses from seven contact agency officials in each community. Due to minor variations among the field sites and some instances of missing data, the responses were averaged so as to compensate for the unequal numbers of interviewees. Thus, the top row, adjacent to interview number 1, reflects the overall response set from the 12 directors who participated in Phase I. The second row reflects the responses obtained from persons associated with law enforcement agencies whereas the second column lists the responses of all the other officials regarding their contacts with law enforcement organizations. The 12 directors averaged weekly contact (5.3) with their local law enforcement agencies. The 11 law enforcement officials, however, perceived their contact with the emergency management office to be slightly less (5.1). The local directors were asked about their contacts with the state division of emergency services, but due to budget constraints, interviews were not conducted within state level offices.

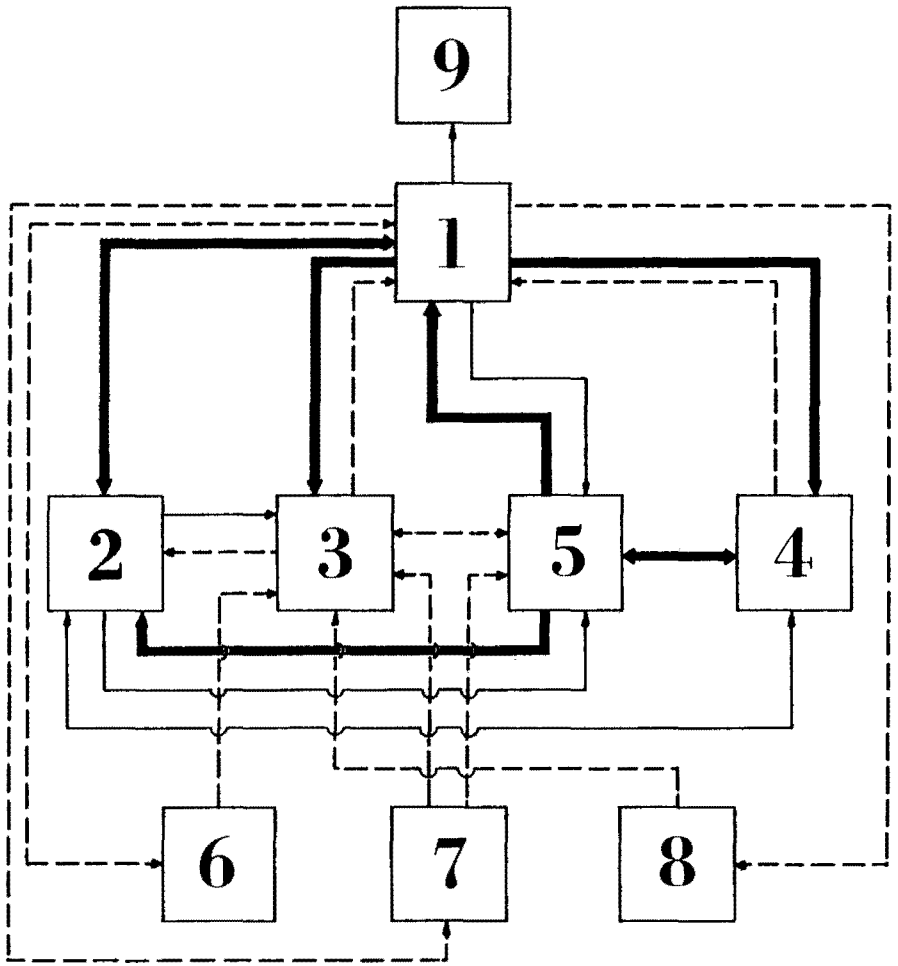
Examination of this data matrix clearly reveals the centrality of the 12 emergency management agencies within their respective networks. This pattern became clearer when the social map was created that is presented in Figure VI-1. These 12 successful directors were nested within an interorganizational structure that was reasonably integrated. Furthermore, they were the key linking agency. While tight relationships existed among other segments of the network, these emergency

TABLE VI-1
FREQUENCY OF DIRECTOR CONTACT: PHASE I FIELD SITES

Agency of Interviewee	Interviewee Response For Agency*								
	1	2	3	4	5	6	7	8	9
1) Emergency Preparedness	x	5.3 (12)	5.3 (12)	5.1 (12)	4.8 (11)	3.6 (11)	3.0 (10)	3.6 (11)	4.6 (11)
2) Law Enforcement	5.1 (11)	x	4.0 (11)	4.2 (11)	4.5 (10)	2.2 (10)	2.8 (10)	2.5 (11)	NA
3) Fire	3.8 (12)	3.7 (11)	x	2.3 (12)	3.0 (11)	2.6 (11)	2.5 (10)	2.8 (11)	NA
4) Public Works	3.9 (11)	4.2 (10)	2.9 (11)	x	5.6 (10)	1.4 (10)	2.0 (9)	1.4 (10)	NA
5) Elected Officials	5.0 (10)	5.4 (9)	3.9 (10)	5.7 (9)	x	2.2 (9)	2.5 (8)	2.9 (9)	NA
6) Red Cross	3.9 (11)	2.6 (10)	3.4 (11)	1.6 (11)	2.2 (10)	x	1.9 (10)	2.4 (10)	NA
7) Local Business	2.8 (6)	2.5 (6)	3.0 (6)	2.5 (6)	3.5 (6)	1.7 (6)	x	1.7 (6)	NA
8) Hospital-Medical	2.9 (11)	2.6 (11)	3.8 (11)	1.3 (11)	1.8 (10)	1.9 (10)	1.3 (10)	x	NA

*These average ratings were computed by adding the response codes (1-6) across the 12 sites and dividing by the number of interviewees within each agency category. Directors selected one of the following categories that best reflected the frequency they had **direct** contact (e.g., not monitoring of radio) with personnel in each of the agencies named: 1 = no contact; 2 = a few times a year; 3 = about once a month; 4 = every few weeks; 5 = about once a week; 6 = several times each week. This procedure produced a slight bias toward underestimating the frequency of director contact (i.e., weekly contact was weighted by a 5 as opposed to 52 weeks per year). Interviewees tend to overestimate such contacts, however, so the overall profile produced was a reasonable approximation of the actual behavior pattern despite these conflicting biasing influences. The number in parenthesis indicates the actual number of executives who responded to the question for each agency type. These varied because of organizational differences among the communities and incomplete responses. Agency type 9 (right hand column) was the State DES office. Initial interviews indicated that few, if any, of the other local agency personnel had contact with this office so only the local emergency management directors were asked this question.

FIGURE VI-1
SOCIAL MAP OF DIRECTOR CONTACTS:
PHASE I FIELD SITES



The digit in each box corresponds to agency type listed in Table VI-1, e.g., 1 = emergency management; 2 = law enforcement, etc. None of the 30 bonds coded as 2 or 1 were included, hence the reported interagency webbing is more dense than that displayed above.

Legend:
▬▬ = about once a week or more frequently (5)
——— = every few weeks (4)
– – – = about once per month (3)

management agency directors had maneuvered their agency into a central position--at least on the basis of contact frequency.

Table VI-2 presents the full pattern of responses obtained from the Phase I directors for eight of the agency types. In order to shorten the telephone interview, two of the contact agencies were excluded from Phase II--local business and hospital-medical. Parallel data reported by the Phase II directors, who were selected randomly, indicated that the Phase I interorganizational networks were slightly more integrated (see Table VI-3). While linkages with law enforcement and fire agencies were quite comparable, those depicting the structure of interaction with all of the other organizations were somewhat more intense among the Phase I directors. This pattern paralleled those reported by Caplow, Bahr, and Chadwick (1984), who documented tight linkages with agencies comprising the "control" sub-system (see Chapter III).

By dividing the study sites using the index described in Chapter IV, we examined the degree to which the "less successful" directors deviated from these patterns (see Table VI-3). Aside from the Red Cross units and State DES offices, this small sub-sample reported interaction frequencies that were comparable to the total Phase II response set. The variation on this structural dimension was less than was anticipated. Even so, these results confirmed a key principle: **successful local emergency management directors participate in interorganizational networks characterized by frequent levels of interaction.**

Since only emergency management agency directors were interviewed in the Phase II telephone survey, it was not possible to cross-reference these perceptions with those held by officials in the contact agencies. Analysis of the pattern differences revealed in the Phase I data set, however, indicated that the bias was in the direction of overestimation;

TABLE VI-2
PHASE I EMERGENCY MANAGEMENT DIRECTORS: FREQUENCY OF DIRECTOR CONTACT

Agency Type	N**	Frequency of Director Contact* 1	2	3	4	5	6
Law Enforcement	12	0 (0)	0 (0)	17 (2)	8 (1)	8 (1)	67 (8)
Fire	12	0 (0)	0 (0)	8 (1)	8 (1)	25 (3)	58 (7)
Public Works	12	0 (0)	0 (0)	8 (1)	17 (2)	33 (4)	42 (5)
Elected Officials	11	0 (0)	9 (1)	0 (0)	27 (3)	27 (3)	36 (4)
Red Cross	11	9 (1)	9 (1)	9 (1)	55 (6)	18 (2)	0 (0)
Local Business	10	0 (0)	30 (3)	50 (5)	10 (1)	10 (1)	0 (0)
Hospital-Medical	11	0 (0)	18 (2)	27 (3)	45 (5)	0 (0)	9 (1)
State DES	12	0 (0)	8 (1)	17 (2)	8 (1)	42 (5)	25 (3)

*Frequency of Director Contact: 1 = no contact; 2 = a few times a year; 3 = about once a month; 4 = every few weeks; 5 = about once a week; 6 = several times each week.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-3
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS: FREQUENCY OF DIRECTOR CONTACT

Agency Type	Phase II Directors N**	Frequency of Director Contact* 1	2	3	4	5	6	Less Successful Directors N**	1	2	3	4	5	6
Law Enforcement	44	0 (0)	2 (1)	5 (2)	7 (3)	16 (7)	69 (31)	7	0 (0)	0 (0)	0 (0)	14 (1)	14 (1)	71 (5)
Fire	47	0 (0)	2 (1)	9 (4)	6 (3)	30 (14)	53 (25)	7	0 (0)	14 (1)	0 (0)	0 (0)	29 (2)	57 (4)
Public Works	46	0 (0)	9 (4)	24 (11)	17 (8)	22 (10)	28 (13)	7	0 (0)	0 (0)	29 (2)	14 (1)	14 (1)	43 (3)
Elected Officials	47	4 (2)	13 (6)	23 (11)	11 (5)	15 (7)	34 (16)	7	0 (0)	0 (0)	29 (2)	14 (1)	14 (1)	43 (3)
Red Cross	46	0 (0)	28 (13)	35 (16)	17 (8)	13 (6)	7 (3)	7	0 (0)	57 (4)	43 (3)	0 (0)	0 (0)	0 (0)
State DES	47	0 (0)	6 (3)	13 (6)	19 (9)	26 (12)	36 (17)	7	0 (0)	14 (1)	29 (2)	29 (2)	0 (0)	29 (2)

*Frequency of Director Contact: 1 = no contact; 2 = a few times a year; 3 = about once a month; 4 = every few weeks; 5 = about once a week; 6 = several times each week.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

That is, directors tended to report more frequent contacts with agencies than was perceived to be the case by agency personnel. The contact pattern reported tends to be overestimated and these linkages probably are weaker than what is reflected in these data profiles.

Structural Location of Contact Point

When emergency management directors contact community agencies, at what level does it occur? Do they go to the top, so to speak, or are their contacts confined to personnel at much lower levels within the contact agency? Would "less successful" directors be as likely to contact agency personnel at similar levels as more successful directors?

Data presented in Tables VI-4 and VI-5 provide answers to these and other questions. Most Phase I directors maintained direct contact with the top elected official in their community and the local public works director, and over one-half did so with law enforcement, fire, and Red Cross agencies. However, middle level managers in state DES offices were the prime contact linkages for seven of the 12 (58%). In general, Phase I directors tended to maintain linkages that were higher in the structures of the contact agencies than the Phase II directors. In turn, Phase II directors reported higher levels than the sub-sample of less successful directors. These overall patterns were consistent across each of the six agency types, although some of the differences were rather slight.

Degree of Formalization

Some emergency managers have found it useful to secure agreements in writing. Indeed, by doing so, expectations can be clarified and conduits for cooperation and coordination can be established. Some local governments have adopted legal requirements to insure that certain types

TABLE VI-4
PHASE I EMERGENCY MANAGEMENT DIRECTORS: STRUCTURAL LOCATION OF CONTACT

Agency Type	N**	Structural Location of Contact Point* 1	2	3	4	5	6
Law Enforcement	12	0 (0)	58 (7)	42 (5)	0 (0)	0 (0)	0 (0)
Fire	12	0 (0)	58 (7)	42 (5)	0 (0)	0 (0)	0 (0)
Public Works	12	0 (0)	83 (10)	17 (2)	0 (0)	0 (0)	0 (0)
Elected Officials	11	0 (0)	82 (9)	9 (1)	0 (0)	0 (0)	9 (1)
Red Cross	11	0 (0)	55 (6)	46 (5)	0 (0)	0 (0)	0 (0)
State DES	12	0 (0)	42 (5)	58 (7)	0 (0)	0 (0)	0 (0)

*Structural location of contact point: 1 = no contact; 2 = director; 3 = middle level manager (e.g., deputy director); 4 = communication specialist; 5 = assigned liasion person; 6 = other.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-5
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS: STRUCTURAL LOCATION OF CONTACT POINT

Agency Type	Structural Location of Contact Point* — Phase II Directors N**	1	2	3	4	5	6	Less Successful Directors N**	1	2	3	4	5	6
Law Enforcement	40	0 (0)	50 (20)	38 (15)	0 (0)	10 (4)	3 (1)	6	0 (0)	33 (2)	67 (4)	0 (0)	0 (0)	0 (0)
Fire	42	0 (0)	71 (30)	19 (8)	0 (0)	5 (2)	5 (2)	6	0 (0)	67 (4)	33 (2)	0 (0)	0 (0)	0 (0)
Public Works	42	0 (0)	55 (23)	36 (15)	0 (0)	10 (4)	0 (0)	6	0 (0)	33 (2)	67 (4)	0 (0)	0 (0)	0 (0)
Elected Officials	41	5 (2)	68 (28)	7 (3)	2 (1)	12 (5)	5 (2)	6	0 (0)	67 (4)	17 (1)	0 (0)	17 (1)	0 (0)
Red Cross	42	0 (0)	57 (24)	24 (10)	2 (1)	17 (7)	0 (0)	6	0 (0)	67 (4)	17 (1)	0 (0)	17 (1)	0 (0)
State DES	42	0 (0)	48 (20)	36 (15)	0 (0)	17 (7)	0 (0)	6	0 (0)	33 (2)	33 (2)	0 (0)	33 (2)	0 (0)

*Structural Location of Contact Point: 1 = no contact; 2 = director; 3 = middle level manager (e.g., deputy director); 4 = communication specialist; 5 = assigned liasion person; 6 = other.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded to each code category listed; percentage based on exact number of directors who responded to the question.

of interagency agreements are formalized. Formalization of agreements is a strategy on which many of the managers relied.

Table VI-6 presents a summary of the information obtained from the agency directors in the 12 communities selected for Phase I. About two-thirds of the Phase I directors indicated that they maintained highly formalized agreements with all of the agency types except local business organizations; however, fewer of them did so with elected officials and hospital-medical organizations. Yet, it was clear that for most, but not all, their interagency structure was nurtured by formalized agreements.

When the randomly selected directors were divided into the two comparison groups, Table VI-7 was produced. Inspection of the pattern differences indicated that except for elected officials and state DES offices where they were about the same, the Phase II directors more frequently reported formalized agreements than did the less successful directors.

Data presented in Table VI-8 present another point of contrast. There the variations are specified among the contact agency representatives regarding formalization of interagency agreements. Inspection of the data pattern indicated that these agencies were more likely to indicate formalized agreements with emergency management offices than any other.

Number of Joint Programs

Another structural strategy for interagency bonding is to form jointly sponsored programs. Data in Table VI-9 summarize the responses obtained from the Phase I directors. The average number of joint programs, across the 12 study communities, is presented for each of the

TABLE VI-6
PHASE I EMERGENCY MANAGEMENT DIRECTORS:
FORMALIZATION OF INTERAGENCY AGREEMENTS

Written Agreement With Agency Type	N**	Type of Formalization* 1	2	3	4
Law Enforcement	12	33 (4)	33 (4)	8 (1)	25 (3)
Fire	12	25 (3)	33 (4)	17 (2)	25 (3)
Public Works	12	33 (4)	25 (3)	17 (2)	25 (3)
Elected Officials	9	44 (4)	11 (1)	0 (0)	44 (4)
Red Cross	11	18 (2)	55 (6)	0 (0)	27 (3)
Local Business	11	0 (0)	18 (2)	18 (2)	64 (7)
Hospital-Medical	11	9 (1)	46 (5)	0 (0)	46 (5)
State DES	12	42 (5)	33 (4)	0 (0)	25 (3)

*Type of Formalization: 1 = legally binding agreements exist; 2 = general memoranda of understanding or other major types of written agreements exist; 3 = a few agreements exist in writing, but of a relatively minor nature; 4 = no written agreements exist.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-7
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS:
FORMALIZATION OF INTERAGENCY AGREEMENTS

Written Agreement With Agency Type	Phase II Directors N**	Type of Formalization* 1	2	3	4	Less Successful Directors N**	Type of Formalization* 1	2	3	4
Law Enforcement	39	31 (12)	46 (18)	3 (1)	21 (8)	6	17 (1)	33 (2)	0 (0)	50 (3)
Fire	41	24 (10)	56 (23)	2 (1)	17 (7)	6	17 (1)	33 (2)	0 (0)	50 (3)
Public Works	41	22 (9)	51 (21)	7 (3)	20 (8)	6	17 (1)	33 (2)	0 (0)	50 (3)
Elected Officials	41	56 (23)	22 (9)	0 (0)	22 (9)	6	67 (4)	17 (1)	0 (0)	17 (1)
Red Cross	40	28 (11)	50 (20)	13 (5)	10 (4)	6	17 (1)	50 (3)	17 (1)	17 (1)
State DES	41	73 (30)	15 (6)	2 (1)	10 (4)	6	83 (5)	17 (1)	0 (0)	0 (0)

*Type of Formalization: 1 = legally binding agreements exist; 2 = general memoranda of understanding as other major types of written agreements exist; 3 = a few agreements exist in writing, but of a relatively minor nature; 4 = no written agreements exist.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-8
CONTACT AGENCY PERSONNEL:
FORMALIZATION OF INTERAGENCY AGREEMENTS

Written Agreement With Agency Type	Type of Formalization*				
	N**	1	2	3	4
Emergency Preparedness	60	5 (3)	48 (29)	5 (3)	42 (25)
Law Enforcement	47	9 (4)	13 (6)	11 (5)	68 (32)
Fire	48	4 (2)	29 (14)	8 (4)	58 (28)
Public Works	48	6 (3)	13 (6)	4 (2)	77 (37)
Elected Officials	49	27 (13)	10 (5)	4 (2)	59 (29)
Red Cross	45	2 (1)	13 (6)	7 (3)	78 (35)
Local Business	43	9 (4)	5 (2)	5 (2)	81 (35)
Hospital-Medical	47	2 (1)	11 (5)	9 (4)	79 (37)

*Type of Formalization: 1 = legally binding agreements exist; 2 = general memoranda of understanding or other major types of written agreements exist; 3 = a few agreements exist in writing, but of a relatively minor nature; 4 = no written agreements exist.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-9
PHASE I EMERGENCY MANAGEMENT DIRECTORS:
NUMBER OF JOINT PROGRAMS

Joint Program With Agency Type	Number of Joint Programs*				
	N**	1	2	3	4
Law Enforcement	12	0 (0)	17 (2)	17 (2)	67 (8)
Fire	12	0 (0)	25 (3)	25 (3)	50 (6)
Public Works	12	8 (1)	50 (6)	17 (2)	25 (3)
Elected Officials	10	50 (5)	0 (0)	10 (1)	40 (4)
Red Cross	10	10 (1)	10 (1)	40 (4)	40 (4)
Local Business	10	10 (1)	40 (4)	40 (4)	10 (1)
Hospital-Medical	11	18 (2)	27 (3)	36 (4)	18 (2)
State DES	11	9 (1)	9 (1)	46 (5)	36 (4)

*Joint Programs: 1 = no joint programs; 2 = one joint program; 3 = two to three joint programs; 4 = four or more joint programs.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

agency types. Except for public works departments, 50% or more of the directors reported either three, four, or more, joint programs with all of the other agency types.

Table VI-10 presents the data from the "Phase II" and "less successful" comparison group. Phase II directors more frequently indicated a larger number of joint programs. As with the degree of formalization, the response set from the Phase I directors fell within the Phase II range, although skewed toward the high end; that is, the Phase II responses covered broader ranges. Within these ranges, the Phase I directors clustered toward the extreme ends, reflecting larger numbers of formalized interagency agreements and more joint programs.

Table VI-11 permitted a final type of comparison. Therein the responses from the contact agency personnel are summarized. Note that most (85%) respondents who answered this question indicated that they had some type of joint program with the local emergency management agency. Most other agency types, with the exception of fire departments, had fewer joint programs. In comparison to other emergency service units, local emergency management agencies had more joint programs.

Amount of Overlapping Memberships

There are other ways to lace segments of communities together, of course. Through the interviews an aspect of the informal linkage pattern was tapped. In certain disaster responses, informal ties among agency executives have been found to facilitate information and resource flows (Drabek et al., 1981). The question went as follows:

> Often two organizations are linked by informal ties among people who interact with each other away from their jobs--maybe because of church or a service organization like Lions. Please review each of the 6 organizations and indicate those wherein there are personnel with whom you share a common membership.

TABLE VI-10
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS: NUMBER OF JOINT PROGRAMS

Joint Program With Agency Type	Number of Joint Programs* Phase II Directors N**	1	2	3	4	Less Successful Directors N**	1	2	3	4
Law Enforcement	37	8 (3)	19 (7)	43 (16)	30 (11)	4	25 (1)	25 (1)	25 (1)	25 (1)
Fire	40	5 (2)	15 (6)	45 (18)	35 (14)	5	20 (1)	20 (1)	40 (2)	20 (1)
Public Works	39	23 (9)	18 (7)	33 (13)	26 (10)	4	50 (2)	25 (1)	25 (1)	0 (0)
Elected Officials	39	26 (10)	8 (3)	28 (11)	39 (15)	4	50 (2)	0 (0)	25 (1)	25 (1)
Red Cross	39	8 (3)	26 (10)	33 (13)	33 (13)	4	25 (1)	25 (1)	25 (1)	25 (1)
State DES	38	16 (6)	0 (0)	26 (10)	58 (22)	4	25 (1)	0 (0)	25 (1)	50 (2)

*Joint Programs: 1 = no joint programs; 2 = one joint program; 3 = two to three joint programs; 4 = four or more joint programs.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-11
CONTACT AGENCY PERSONNEL:
NUMBER OF JOINT PROGRAMS

Joint Program With Agency Type	N**	Number of Joint Programs* 1	2	3	4
Emergency Preparedness	53	15 (8)	17 (9)	34 (18)	34 (18)
Law Enforcement	42	43 (18)	21 (9)	14 (6)	21 (9)
Fire	43	23 (10)	21 (9)	30 (13)	26 (11)
Public Works	45	64 (29)	4 (2)	16 (7)	16 (7)
Elected Officials	45	56 (25)	18 (8)	11 (5)	16 (7)
Red Cross	41	51 (21)	15 (6)	24 (10)	10 (4)
Local Business	46	72 (33)	11 (5)	15 (7)	2 (1)
Hospital-Medical	43	54 (23)	16 (7)	21 (9)	9 (4)

*Joint Programs: 1 = no joint programs; 2 = one joint program; 3 = two to three joint programs; 4 = four or more joint programs.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

Table VI-12 presents the responses from the Phase I directors. Although the frequencies varied widely from a high of 67% to a low of 25% depending upon agency type, about one-half of these directors indicated that they participated in some type of additional organizational setting with personnel from each of the eight types of contact agencies. Most commonly this was a civic or fraternal organization. More than one type of shared membership was held most frequently with law enforcement and fire agency personnel. For many of these directors, memberships in a variety of other local organizations provided additional opportunities to form social bonds.

In Table VI-13 the responses from the Phase II directors are contrasted to those obtained from the less successful comparison group. Curiously, the less successful directors reported slightly greater numbers of shared memberships than were found within the randomly selected group. This was most pronounced among law enforcement agencies. Five out of six of these directors (83%) apparently participated in some organization with members of their local law enforcement agency; this was much higher than the rate reported by the Phase II directors (59%). Only one of the six less successful directors (17%) indicated any shared memberships with Red Cross personnel, however, in contrast to the Phase II directors (22%). Given the small number of directors involved, and the minor fluctuations in pattern, little could be said about the implications. Clearly, some directors are assisted by interactions in these settings; and that may be true also for those who have been less successful in accomplishing key emergency management tasks. Both the frequency of such memberships and their consequences for program enhancement should be examined further.

TABLE VI-12
PHASE I EMERGENCY MANAGEMENT DIRECTORS: OVERLAPPING ORGANIZATIONAL MEMBERSHIPS

Shared Membership With Personnel in Agency Type	Type of Overlapping Membership*						
	N**	1	2	3	4	5	6
Law Enforcement	12	42 (5)	0 (0)	17 (2)	8 (1)	8 (1)	25 (3)
Fire	12	33 (4)	8 (1)	17 (2)	25 (3)	0 (0)	17 (2)
Public Works	12	75 (9)	0 (0)	0 (0)	8 (1)	8 (1)	8 (1)
Elected Officials	11	46 (5)	18 (2)	27 (3)	0 (0)	9 (1)	0 (0)
Red Cross	11	64 (7)	0 (0)	36 (4)	0 (0)	0 (0)	0 (0)
Local Business	10	50 (5)	10 (1)	30 (3)	10 (1)	0 (0)	0 (0)
Hospital-Medical	11	73 (8)	0 (0)	9 (1)	0 (0)	9 (1)	9 (1)
State DES	12	75 (9)	0 (0)	17 (2)	0 (0)	8 (1)	0 (0)

*Types of overlapping membership: 1 = no shared memberships; 2 = religious organization; 3 = civic or fraternal organization; 4 = social or hobby organization; 5 = other; 6 = more than one type of shared membership.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-13
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS: OVERLAPPING ORGANIZATIONAL MEMBERSHIPS

Shared Memberships With Personnel In Agency Type	Type of Overlapping Membership*													
	Phase II Directors							Less Successful Directors						
	N**	1	2	3	4	5	6	N**	1	2	3	4	5	6
Law Enforcement	39	41 (16)	8 (3)	18 (7)	8 (3)	15 (6)	10 (4)	6	17 (1)	17 (1)	17 (1)	17 (1)	0 (0)	33 (2)
Fire	41	51 (21)	0 (0)	20 (8)	12 (5)	5 (2)	12 (5)	6	33 (2)	0 (0)	0 (0)	33 (2)	0 (0)	33 (2)
Public Works	39	74 (29)	0 (0)	5 (2)	5 (2)	5 (2)	10 (4)	6	67 (4)	0 (0)	0 (0)	17 (1)	0 (0)	17 (1)
Elected Officials	39	56 (22)	5 (2)	10 (4)	8 (3)	13 (5)	8 (3)	6	50 (3)	17 (1)	17 (1)	0 (0)	0 (0)	17 (1)
Red Cross	40	78 (31)	0 (0)	8 (3)	0 (0)	5 (2)	10 (4)	6	83 (5)	0 (0)	0 (0)	0 (0)	0 (0)	17 (1)
State DES	40	58 (23)	5 (2)	13 (5)	0 (0)	8 (3)	18 (7)	6	50 (3)	17 (1)	0 (0)	0 (0)	0 (0)	33 (2)

*Types of overlapping membership: 1 = no shared memberships; 2 = religious organization; 3 = civic or fraternal organization; 4 = social or hobby organization; 5 = other; 6 = more than one type of shared membership.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

Responses from the personnel in the contact agencies provided interesting points of comparison (see Table VI-14). While many examples of overlapping memberships were noted by these executives, their rate was less than one-fourth (22%) when viewed across all eight of the agency types. This was in sharp contrast to the higher average rates reported by both the Phase I (57%) and Phase II (60%) emergency management directors. Also, the number of such memberships varies greatly by agency type. More of these executives reported having shared memberships with fire department personnel--just over one-third (36%). Somewhat frequent, but lower than this rate, were shared memberships with personnel in three other agencies: 1) elected officials, 2) law enforcement, and 3) emergency preparedness. Fewer such memberships were held with Red Cross personnel (8%). Personnel in three other types of organizations also ranked relatively low on this interorganizational quality: 1) hospital-medical, 2) local business, and 3) public works.

As with the local emergency management directors, these linkages reflected common memberships in civic or fraternal organizations. In so far as interactions within these settings serve to augment the social bondings across these agencies, the impacts vary.

The implications of these data sets--the most detailed that have been published to date--are clear. Successful emergency managers are nested within interagency structures that have unique qualities; five of these have been discussed above: 1) frequency of director contact, 2) structural location of contact, 3) formalization, 4) number of joint programs, and 5) overlapping organizational memberships. The creation and maintenance of these structures is a key strategy that these managers use in differing degrees. No single strategy or set of structures fits every community, but those seeking to enter the professional

TABLE VI-14
CONTACT AGENCY PERSONNEL:
OVERLAPPING ORGANIZATIONAL MEMBERSHIPS

Shared Memberships With Personnel in Agency Type	N**	Type of Overlapping Membership* 1	2	3	4	5	6
Emergency Preparedness	66	74 (49)	8 (5)	11 (7)	2 (1)	3 (2)	3 (2)
Law Enforcement	50	72 (36)	6 (3)	12 (6)	0 (0)	6 (3)	4 (2)
Fire	53	64 (34)	2 (1)	17 (9)	8 (4)	4 (2)	6 (3)
Public Works	54	85 (46)	0 (0)	4 (2)	6 (3)	4 (2)	2 (1)
Elected Officials	52	71 (37)	4 (2)	15 (8)	4 (2)	2 (1)	4 (2)
Red Cross	48	92 (44)	2 (1)	6 (3)	0 (0)	0 (0)	0 (0)
Local Business	50	84 (42)	0 (0)	6 (3)	0 (0)	6 (3)	4 (2)
Hospital-Medical	50	80 (40)	6 (3)	8 (4)	2 (1)	0 (0)	4 (2)

*Types of overlapping membership: 1 = no shared memberships; 2 = religious organization; 3 = civic or fraternal organization; 4 = social or hobby organization; 5 = other; 6 = more than one type of shared membership.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

role of emergency manager would be well advised to appreciate these invisible webs of social constraint.

Two Outcome Qualities

Interorganizational networks differ in the degree to which there is a consensus regarding agency missions. For several years organizational sociologists have tapped into a quality that often has been labeled "domain consensus" (Thompson, 1967; Haas and Drabek, 1973). It may be related to, but is not the same as coordination. The directors were asked to share their **perceptions** on both domain consensus and coordination. Of course, the interorganizational qualities just discussed reflected their perceptions too. It is one thing to ask about the number of joint programs, however, and quite another to ask, "how well are the activities of your organization and those of each of the other organizations coordinated?" Although responses to such questions only reveal **perceptions**, such evaluations do guide managerial behavior. Presumably, successful emergency managers would secure higher levels of both domain consensus and perceived level of interorganizational coordination.

Domain Consensus

Responses obtained from the directors in the 12 field studies are listed in Table VI-15. The question asked was: "To what extent do you and the head of each of these agencies agree on the goals and priorities you should have for **your** organization?" Clearly, most of the Phase I directors believed that officials in the eight contact agencies generally agreed on the goals and priorities that they advanced for the emergency management program. Of course, the perceived levels of consensus were not uniform across the agency types. Ranking highest were state DES and law enforcement personnel and elected officials. Nearly one-third (30%) were unsure of how the local business executive they identified for the study would view this matter. About this same proportion (33%) also indicated that public works personnel only "agree somewhat" with their definition of agency mission.

Law enforcement personnel were not rated as highly on this quality by the Phase II directors, however (see Table VI-16); their overall ranking was slightly lower than both fire department and public works personnel. Both state DES and elected officials were perceived to share very high levels of domain consensus.

Data in Table VI-16 permitted a contrast between the Phase II directors and the less successful comparison group. Of course, these are perceptual data, reflecting only the views of these directors. We would expect that the less successful directors might report higher levels of consensus about agency mission than may be perceived by personnel in related agencies. Still, despite such a distortion, the overall pattern reinforced the outcome expected. Through various strategies used to nurture the interorganizational network, successful emergency managers were able to attain relatively high levels of consensus regarding the mission of their agency.

This conclusion was supported further by the data presented as Table VI-17. Responses from the contact agency personnel in the 12 Phase I communities indicated that except for public works, these local directors had attained relatively high levels of domain consensus. As **perceived** by these executives, the emergency managers were thought to agree with their views regarding the central mission of their agency.

TABLE VI-15
PHASE I EMERGENCY MANAGEMENT DIRECTORS:
DOMAIN CONSENSUS

Agency Type	N**	Degree of Domain Consensus* 1	2	3	4	5	6
Law Enforcement	12	0 (0)	92 (11)	0 (0)	8 (1)	0 (0)	0 (0)
Fire	12	0 (0)	58 (7)	25 (3)	17 (2)	0 (0)	0 (0)
Public Works	12	0 (0)	42 (5)	25 (3)	33 (4)	0 (0)	0 (0)
Elected Officials	11	0 (0)	73 (8)	18 (2)	9 (1)	0 (0)	0 (0)
Red Cross	11	9 (1)	73 (8)	9 (1)	0 (0)	9 (1)	0 (0)
Local Business	10	30 (3)	30 (3)	30 (3)	10 (1)	0 (0)	0 (0)
Hospital-Medical	11	0 (0)	46 (5)	36 (4)	18 (2)	0 (0)	0 (0)
State DES	12	0 (0)	42 (5)	58 (7)	0 (0)	0 (0)	0 (0)

*Degree of Domain Consensus: 1 = don't know how they view this program; 2 = agree very much; 3 = agree quite a bit; 4 = agree somewhat; 5 = agree a little; 6 = disagree.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-16
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS:
DOMAIN CONSENSUS

Agency Type	Degree of Domain Consensus* Phase II Directors N**	1	2	3	4	5	6	Less Successful Directors N**	1	2	3	4	5	6
Law Enforcement	39	3 (1)	49 (19)	31 (12)	13 (5)	3 (1)	3 (1)	5	0 (0)	60 (3)	20 (1)	20 (1)	0 (0)	0 (0)
Fire	41	2 (1)	61 (25)	24 (10)	10 (4)	2 (1)	0 (0)	5	20 (1)	60 (3)	20 (1)	0 (0)	0 (0)	0 (0)
Public Works	41	12 (5)	49 (20)	34 (14)	5 (2)	0 (0)	0 (0)	5	40 (2)	60 (3)	0 (0)	0 (0)	0 (0)	0 (0)
Elected Officials	41	7 (3)	63 (26)	27 (11)	0 (0)	0 (0)	2 (1)	5	20 (1)	40 (2)	40 (2)	0 (0)	0 (0)	0 (0)
Red Cross	41	7 (3)	54 (22)	24 (10)	10 (4)	5 (2)	0 (0)	5	20 (1)	60 (3)	0 (0)	0 (0)	20 (1)	0 (0)
State DES	41	5 (2)	66 (27)	20 (8)	7 (3)	0 (0)	2 (1)	5	20 (1)	60 (3)	0 (0)	0 (0)	0 (0)	20 (1)

*Degree of Domain Consensus: 1 = don't know how they view this program; 2 = agree very much; 3 = agree quite a bit; 4 = agree somewhat; 5 = agree a little; 6 = disagree.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-17
CONTACT AGENCY PERSONNEL:
DOMAIN CONSENSUS

Agency Type	N**	Degree of Domain Consensus* 1	2	3	4	5	6
Emergency Preparedness	43	12 (5)	63 (27)	21 (9)	5 (2)	0 (0)	0 (0)
Law Enforcement	34	24 (8)	44 (15)	29 (10)	3 (1)	0 (0)	0 (0)
Fire	33	6 (2)	64 (21)	18 (6)	9 (3)	3 (1)	0 (0)
Public Works	34	68 (23)	24 (8)	6 (2)	3 (1)	0 (0)	0 (0)
Elected Officials	36	19 (7)	47 (17)	19 (7)	14 (5)	0 (0)	0 (0)
Red Cross	29	45 (13)	45 (13)	7 (2)	3 (1)	0 (0)	0 (0)
Local Business	31	52 (16)	26 (8)	13 (4)	10 (3)	0 (0)	0 (0)
Hospital-Medical	32	41 (13)	47 (15)	6 (2)	3 (1)	3 (1)	0 (0)

*Degree of Domain Consensus: 1 = don't know how they view this program; 2 = agree very much; 3 = agree quite a bit; 4 = agree somewhat; 5 = agree a little; 6 = disagree.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

Perceived Interorganizational Coordination

Table VI-18 presents the responses provided by the Phase I directors. As would be expected, collectively they **perceived** that their activities were well-coordinated with those of other community agencies and the state disaster office. In contrast to domain consensus, the Phase I directors perceived their activities were well-coordinated with all of the other agencies except for one--local business. It was rated much lower by most of these directors, especially when put into the context of the other ratings. While there was variation in the ratings assigned to the other seven types of agencies, it was less than that for the previous outcome variable--domain consensus.

Table VI-19 contains the responses received from the Phase II directors which again were divided so as to provide results for the less successful comparison group. Within this randomly selected group, elected officials were rated relatively low too (only 68% were assigned "very well" or "well"). Activities with law enforcement and fire agencies were perceived to be much better coordinated. These ratings were very close to those assigned by the Phase I directors. The major differences in the perceptions between the Phase I and Phase II directors pertained to Red Cross personnel. The more successful Phase I directors perceived their program to be better coordinated with local Red Cross offices than did the Phase II directors.

While the small number of cases again precluded extensive analysis, the perceptions of the less successful comparison group indicated that the major coordination deficiency was with Red Cross personnel. Also,

TABLE VI-18
PHASE I EMERGENCY MANAGEMENT DIRECTORS:
PERCEIVED INTERORGANIZATIONAL COORDINATION

Agency Type	Perceived Interorganizational Coordination* N**	1	2	3	4	5	6
Law Enforcement	12	0 (0)	75 (9)	8 (1)	17 (2)	0 (0)	0 (0)
Fire	12	0 (0)	75 (9)	8 (1)	17 (2)	0 (0)	0 (0)
Public Works	12	0 (0)	42 (5)	40 (6)	8 (1)	0 (0)	0 (0)
Elected Officials	11	0 (0)	45 (5)	36 (4)	18 (2)	0 (0)	0 (0)
Red Cross	11	9 (1)	64 (7)	27 (3)	0 (0)	0 (0)	0 (0)
Local Business	11	0 (0)	9 (1)	18 (2)	46 (5)	27 (3)	0 (0)
Hospital-Medical	11	9 (1)	36 (4)	55 (6)	0 (0)	0 (0)	0 (0)
State DES	12	0 (0)	58 (7)	25 (3)	17 (2)	0 (0)	0 (0)

*Perceived Interorganizational Coordination: 1 = no contact; 2 = very well; 3 = well; 4 = adequately; 5 = poorly; 6 = very poorly.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

TABLE VI-19
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS:
PERCEIVED INTERORGANIZATIONAL COORDINATION

Agency Type	Perceived Interorganizational Coordination* Phase II Directors N**	1	2	3	4	5	6	Less Successful Directors N**	1	2	3	4	5	6
Law Enforcement	39	0 (0)	62 (24)	23 (9)	13 (5)	3 (1)	0 (0)	5	0 (0)	60 (3)	40 (2)	0 (0)	0 (0)	0 (0)
Fire	41	0 (0)	54 (22)	32 (13)	10 (4)	5 (2)	0 (0)	5	0 (0)	40 (2)	40 (2)	20 (1)	0 (0)	0 (0)
Public Works	41	0 (0)	39 (16)	37 (15)	24 (10)	0 (0)	0 (0)	5	0 (0)	40 (2)	40 (2)	20 (1)	0 (0)	0 (0)
Elected Officials	41	7 (3)	46 (19)	22 (9)	24 (10)	0 (0)	0 (0)	5	0 (0)	40 (2)	20 (1)	40 (2)	0 (0)	0 (0)
Red Cross	41	0 (0)	54 (22)	27 (11)	17 (7)	2 (1)	0 (0)	5	0 (0)	20 (1)	20 (1)	60 (3)	0 (0)	0 (0)
State DES	41	0 (0)	63 (26)	17 (7)	7 (3)	10 (4)	2 (1)	5	0 (0)	40 (2)	20 (1)	20 (1)	20 (1)	0 (0)

*Perceived Interorganizational Coordination: 1 = no contact; 2 = very well; 3 = well; 4 = adequately; 5 = poorly; 6 = very poorly.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

both state DES and elected officials were perceived to be problematic in terms of the coordination levels that had been attained.

Finally, perceptions regarding the degree of interorganization coordination were summarized for the contact agency personnel. These data are listed in Table VI-20. Note that these executives indicated that their organizational activities were coordinated better with the emergency management agency than most of the other organizations within their community. Thus, both as a consequence of their actions and as an independent structural constraint, these 12 directors had created an interorganizational image. Their respective agencies were perceived as being well-coordinated. Like domain consensus, this was a crucial outcome of the related interorganizational dimensions. Collectively, these dimensions comprise the **structures of success** that effective emergency managers must seek to create and nurture.

From the analysis of the data arrayed in these 20 tables, eight general conclusions were drawn. Collectively, these provide the most detailed portrait to date of the interorganizational networks in which local emergency managers are embedded.

1) **Frequency of Director Contact**: Successful directors (Phase I) maintained frequent levels of contact with all of the eight types of agencies selected for study. Overall, contact rates exceeded those reported by a randomly selected group of directors (Phase II).

2) **Structural Location of Contact Point**: When these successful directors (Phase I) contacted other local agencies, they tended to reach personnel at high levels. When compared to the randomly selected group of directors, the structural location of the prime contact person was higher for the Phase I directors.

3) **Degree of Formalization**: About two-thirds of the Phase I directors used written agreements to stabilize and maintain interagency relationships. Their response pattern fell within the range of responses given by the Phase II directors, but it was toward the extreme upper end. A small sub-sample of less

successful directors rated much lower on this quality. Compared to the other types of agencies studied, emergency management agencies had a larger number of formalized interagency agreements.

4) **Number of Joint Programs**: Except for public works departments, whose involvement was lower, one-half or more of the Phase I directors reported two or more joint programs with each of the other seven types of agencies studied. As with formalization, the responses of these successful directors (Phase I) were within, but toward the extreme high end, of the profile derived from the randomly selected group (Phase II).

5) **Overlapping Organizational Memberships**: Over one-half of the Phase I directors were members of other community organizations wherein they interacted with personnel from four of the eight types of agencies studied. While this included many different kinds of organizations, civic or fraternal groups were reported most frequently. This rate was near the extreme high end of that obtained from the Phase II directors and was significantly higher than that reported by executives in the other agencies studied.

6) **Domain Consensus**: Phase I directors perceived that top officials in the eight other community agencies studied agreed with them regarding the mission of the emergency management program (domain consensus). This perception was validated through interviews with contact agency personnel. The level of domain consensus was higher among the Phase I directors than either the Phase II or less successful sub-sample. The successful directors (Phase I) perceived highest levels of domain consensus to be with law enforcement personnel and both state DES and local elected officials. Lower rates were operative for local business organizations and public works departments.

7) **Perceived Coordination**: Phase I directors perceived that their activities were well coordinated with seven of the local agency types; lower ratings were given to local business. This pattern approximated that obtained from the Phase II directors except that Red Cross agencies and elected officials were rated lower. The small sub-sample of less successful directors perceived lower levels of coordination generally, especially with local Red Cross units, and both state DES and elected officials.

8) **Conclusion**: These seven specific qualities of interorganizational networks indicated that the successful directors (Phase I) were embedded within structures that were more integrated. These data firmly documented that the creation and nurturing of such interorganizational webbing is a major strategy for agency success. Since previous research has documented that communities lacking such structural bonding will have minimal disaster response capability, the lesson is clear for emergency management professionals.

TABLE VI-20
CONTACT AGENCY PERSONNEL:
PERCEIVED INTERORGANIZATIONAL COORDINATION

Agency Type	N**	Perceived Interorganizational Coordination* 1	2	3	4	5	6
Emergency Preparedness	54	4 (2)	54 (29)	17 (9)	19 (10)	7 (4)	0 (0)
Law Enforcement	43	7 (3)	37 (16)	14 (6)	35 (15)	2 (1)	5 (2)
Fire	44	5 (2)	46 (20)	30 (13)	18 (8)	2 (1)	0 (0)
Public Works	46	35 (16)	20 (9)	17 (8)	20 (9)	9 (4)	0 (0)
Elected Officials	47	17 (8)	30 (14)	11 (5)	34 (16)	2 (1)	6 (3)
Red Cross	41	22 (9)	15 (6)	22 (9)	29 (12)	7 (3)	5 (2)
Local Business	43	49 (21)	12 (5)	19 (8)	16 (7)	2 (1)	2 (1)
Hospital-Medical	39	31 (12)	18 (7)	23 (9)	23 (9)	3 (1)	3 (1)

*Perceived Interorganizational Coordination: 1 = no contact; 2 = very well; 3 = well; 4 = adequately; 5 = poorly; 6 = very poorly.

**Due to missing data and local political organization, the number of cases varied among the agency types. The number in parenthesis is the actual number of directors who responded in each code category listed; percentage based on exact number of directors who responded to the question.

CHAPTER VII

COMMUNITY SIZE AND VARIATIONS IN INTERAGENCY NETWORKS

In this chapter we will examine the research questions regarding community size. Are there systematic variations in the structures of the emergency response networks among communities with different population bases? A long tradition within the social sciences dating back to the early work of such pioneers as Tonnies (1887), Simmel (1955), and others suggests that fundamental differences exist in personal and organizational lifestyles in variously sized communities. As communities increase in size, relationships among people become more fragmented, depersonalized, and less lasting (Warren, 1978; Palen, 1981). Customers in large cities are less apt to return to any particular business establishment because of the abundance of comparable services available. An assumption of single transactions loosens constraints that might engender consumer loyalty. Large cities provide anonymity--a virtue many place high in their priority set--but anonymity also neutralizes relationships rooted in assumptions of trust and continuity.

As community size increases, so too do the number and size of many organizations that comprise the emergency response network. It is not just the population or organizational base that increases, there are fundamental changes in the web of human relationships. Using the five structural dimensions examined in the last chapter and the two outcome qualities--domain consensus and perceived degree of interagency coordination--we will examine this issue in detail.

Frequency of Director Contact

In Table VII-1 the responses from the 12 Phase I directors are arranged by community size for the first structural dimension we examined in Chapter VI--frequency of director contact. Across the six agency types, community size didn't seem to affect this quality; that is, the more successful directors reported relatively frequent contact with personnel in these agencies regardless of the size of their community.

Two exceptions merit notice, however. First, directors in smaller communities reported more frequent contacts with elected officials than did those in the larger ones. Second, and in direct contrast, the same directors indicated less frequent contact with Red Cross agencies. While the overall contact frequency reported for Red Cross units was lower than that reported for the other agencies, the frequency of contact reported by small town directors was disproportionately lower.

These patterns partially reappeared within the randomly selected group of directors in Phase II. As listed in Table VII-2, these data reflected three patterns. First, consistent with the pattern noted within the Phase I group, directors in rural areas reported slightly less frequent contact with Red Cross personnel. Second, they reported somewhat more frequent contact with law enforcement agencies. Third, as city size increased, there appeared to be little difference in contact frequency for the other four agency types, although a slight curvilinear relationship was noted among public works, elected officials, and state DES offices. That is, agency directors in mid-sized communities (those ranging in size between 50,000 and 499,000) reported somewhat more frequent contact levels than did those in either larger or smaller locales.

TABLE VII-1
COMMUNITY SIZE VS. FREQUENCY OF DIRECTOR CONTACT: PHASE I DIRECTORS

Community Size	Frequency of Director Contact*					
	1	2	3	4	5	6
Law Enforcement						
500,000 plus	0	0	1	0	1	2
50,000-499,999	0	0	0	1	0	3
49,999 or less	0	0	1	0	0	3
Fire						
500,000 plus	0	0	0	1	2	1
50,000-499,999	0	0	0	0	0	4
49,999 or less	0	0	1	0	1	2
Public Works						
500,000 plus	0	0	1	0	1	2
50,000-499,999	0	0	0	1	1	2
49,999 or less	0	0	0	1	2	1
Elected Officials						
500,000 plus	0	1	0	1	0	1
50,000-499,999	0	0	0	2	1	1
49,999 or less	0	0	0	0	2	2
Red Cross						
500,000 plus	0	0	0	2	2	0
50,000-499,999	0	0	0	3	0	0
49,999 or less	1	1	1	1	0	0
State DES						
500,000 plus	0	1	1	0	0	2
50,000-499,999	0	0	0	1	3	0
49,999 or less	0	0	1	0	2	1

*Frequency of Director Contact: 1 = no contact; 2 = a few times a year; 3 = about once a month; 4 = every few weeks; 5 = about once a week; 6 = several times each week. Numbers listed are the actual number of directors who responded in each code category.

TABLE VII-2
COMMUNITY SIZE VS. FREQUENCY OF DIRECTOR CONTACT: PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Frequency of Director Contact*											
	Phase II Directors						Less Successful Directors					
	1	2	3	4	5	6	1	2	3	4	5	6
Law Enforcement												
1 million plus	0	0	1	1	2	4	0	0	0	0	0	0
500,000-999,999	0	1	1	0	2	4	0	0	0	0	0	2
100,000-499,999	0	0	0	1	0	8	0	0	0	1	0	0
50,000-99,999	0	0	0	0	1	9	0	0	0	0	0	1
49,999 or less	0	0	0	1	2	6	0	0	0	0	1	2
Fire												
1 million plus	0	0	1	1	2	6	0	0	0	0	0	0
500,000-999,999	0	0	1	1	2	4	0	0	0	0	0	2
100,000-499,999	0	0	0	0	2	7	0	0	0	0	1	0
50,000-99,999	0	0	1	0	4	5	0	0	0	0	0	1
49,999 or less	0	1	1	1	4	3	0	1	0	0	1	1
Public Works												
1 million plus	0	1	2	3	2	2	0	0	0	0	0	0
500,000-999,999	0	3	1	1	1	2	0	0	0	0	0	2
100,000-499,999	0	0	3	0	4	2	0	0	1	0	0	0
50,000-99,999	0	0	1	3	1	5	0	0	0	1	0	0
49,999 or less	0	0	4	1	2	2	0	0	1	0	1	1
Elected Officials												
1 million plus	2	1	3	1	2	1	0	0	0	0	0	0
500,000-999,999	0	2	2	1	1	2	0	0	0	1	0	1
100,000-499,999	0	0	2	1	1	5	0	0	0	0	0	1
50,000-99,999	0	1	0	1	2	6	0	0	0	0	0	1
49,999 or less	0	2	4	1	1	2	0	0	2	0	1	0
Red Cross												
1 million plus	0	1	3	4	2	0	0	0	0	0	0	0
500,000-999,999	0	4	3	0	1	0	0	2	0	0	0	0
100,000-499,999	0	1	3	2	2	1	0	0	1	0	0	0
50,000-99,999	0	3	4	1	1	1	0	1	0	0	0	0
49,999 or less	0	4	3	1	0	1	0	1	2	0	0	0
State DES												
1 million plus	0	1	1	3	2	3	0	0	0	0	0	0
500,000-999,999	0	0	2	2	1	3	0	0	1	0	0	1
100,000-499,999	0	0	1	1	3	4	0	0	0	0	0	1
50,000-99,999	0	1	1	1	2	5	0	1	0	0	0	0
49,999 or less	0	1	1	2	4	2	0	0	1	2	0	0

*Frequency of Director Contact: 1 = no contact; 2 = a few times a year; 3 = about once a month; 4 = every few weeks; 5 = about once a week; 6 = several times each week. Numbers listed are the actual number of directors who responded in each code category.

Also listed in Table VII-2 are the responses from the "less successful" director group. The small number of these directors precluded detailed analysis, but the most striking feature of these responses was the overall pattern of less frequent contact regardless of community size. Less successful directors in rural communities disproportionately reported less frequent contacts.

In short, these data indicated that local emergency management directors tend to maintain relatively high levels of interagency contact rates regardless of community size. Successful directors (Phase I) in smaller communities maintained more frequent contact with elected officials than did their counterparts in larger places. Those placed into the less successful comparison group evidenced an opposite pattern: less frequent contact was maintained. Furthermore, while the trend lines were slight, directors in communities in the three middle categories maintained more frequent contacts with other emergency agencies than did those in either larger or smaller communities.

Structural Location of Contact Point

Detailed review of the responses listed in Table VII-3 revealed a fairly clear pattern among the Phase I directors. Within extremely large communities--places like Los Angeles County or Dallas--emergency management directors maintain cross-agency communication linkages that are lower in the structure than those found in small towns. There the head of the agency--the sheriff or police chief--is the prime contact point. In larger locales middle level management personnel served as the contact points rather than the top official. The single exception was the state DES offices. Local managers in larger communities tended

TABLE VII-3
COMMUNITY SIZE VS. STRUCTURAL LOCATION OF CONTACT POINT: PHASE I DIRECTORS

Community Size	Structural Location of Contact Point*					
	1	2	3	4	5	6
Law Enforcement						
500,000 plus	0	1	3	0	0	0
50,000-499,999	0	3	1	0	0	0
49,999 or less	0	3	1	0	0	0
Fire						
500,000 plus	0	2	2	0	0	0
50,000-499,999	0	2	2	0	0	0
49,999 or less	0	3	1	0	0	0
Public Works						
500,000 plus	0	3	1	0	0	0
50,000-499,999	0	3	1	0	0	0
49,999 or less	0	4	0	0	0	0
Elected Officials						
500,000 plus	0	3	0	0	0	0
50,000-499,999	0	3	0	0	0	1
49,999 or less	0	3	1	0	0	0
Red Cross						
500,000 plus	0	2	2	0	0	0
50,000-499,999	0	1	2	0	0	0
49,999 or less	0	3	1	0	0	0
State DES						
500,000 plus	0	3	1	0	0	0
50,000-499,999	0	2	2	0	0	0
49,999 or less	0	0	4	0	0	0

*Structural Location of Contact Point: 1 = no contact; 2 = director; 3 = middle level manager (e.g., deputy director); 4 = communication specialist; 5 = assigned liaison person; 6 = other. Numbers listed are the actual number of directors who responded in each code category.

to maintain direct contact with state directors, whereas those in smaller places were linked to middle level officials.

In general, this same pattern difference was noted among the responses provided by the randomly selected group of directors (see Table VII-4). For example, rural directors more frequently maintained regular contact with the directors of the other local agencies--be they elected officials, law enforcement officers, Red Cross personnel, or public works officials--than did those in communities that exceeded one million in population. In contrast, the state DES office contact pattern was reversed; directors in the largest communities maintained direct contact with the agency head, whereas more of those in less populated areas worked through middle level personnel. Within the "less successful" director pool, these overall patterns were reproduced with one major exception. Fewer of these individuals, especially those in the smaller communities, had direct access to agency heads. Unlike those Phase I directors in smaller communities, their linkage pattern was pushed downward within the structures of such agencies as law enforcement, fire, and especially public works.

In short, the structural location of interorganizational contact points reflected both the dynamic of community size and relative effectiveness levels of local emergency management directors. Greater levels of differentiation and organizational size produced network variations that covaried across jurisdictions of comparable size. Except in the largest of urban areas, effective directors had gained access to the top level officials in other local emergency organizations. Such access is an important step in nurturing the multiagency network which is a prime determinant of community response capability.

TABLE VII-4
COMMUNITY SIZE VS. STRUCTURAL LOCATION OF CONTACT POINT: PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Structural Location of Contact Point*											
	Phase II Directors						Less Successful Directors					
	1	2	3	4	5	6	1	2	3	4	5	6
Law Enforcement												
1 million plus	0	2	3	0	2	0	0	0	0	0	0	0
500,000-999,999	0	5	2	0	1	0	0	2	0	0	0	0
100,000-499,999	0	5	4	0	0	0	0	0	1	0	0	0
50,000-99,999	0	4	3	0	1	1	0	0	1	0	0	0
49,999 or less	0	4	3	0	0	0	0	0	2	0	0	0
Fire												
1 million plus	0	6	2	0	1	0	0	0	0	0	0	0
500,000-999,999	0	6	2	0	0	0	0	2	0	0	0	0
100,000-499,999	0	8	0	0	1	0	0	1	0	0	0	0
50,000-99,999	0	5	2	0	0	2	0	0	1	0	0	0
49,999 or less	0	5	2	0	0	0	0	1	1	0	0	0
Public Works												
1 million plus	0	2	6	0	1	0	0	0	0	0	0	0
500,000-999,999	0	8	0	0	0	0	0	2	0	0	0	0
100,000-499,999	0	6	3	0	0	0	0	0	1	0	0	0
50,000-99,999	0	4	4	0	1	0	0	0	1	0	0	0
49,999 or less	0	3	2	0	2	0	0	0	2	0	0	0
Elected Officials												
1 million plus	2	3	1	0	3	0	0	0	0	0	0	0
500,000-999,999	0	6	0	0	2	0	0	1	0	0	1	0
100,000-499,999	0	6	1	0	0	1	0	1	0	0	0	0
50,000-99,999	0	6	1	1	0	1	0	0	1	0	0	0
49,999 or less	0	7	0	0	0	0	0	2	0	0	0	0
Red Cross												
1 million plus	0	3	4	0	2	0	0	0	0	0	0	0
500,000-999,999	0	5	3	0	0	0	0	2	0	0	0	0
100,000-499,999	0	5	2	0	2	0	0	1	0	0	0	0
50,000-99,999	0	6	0	1	2	0	0	0	0	0	1	0
49,999 or less	0	5	1	0	1	0	0	1	1	0	0	0
State DES												
1 million plus	0	5	3	0	1	0	0	0	0	0	0	0
500,000-999,999	0	5	3	0	0	0	0	1	1	0	0	0
100,000-499,999	0	3	5	0	1	0	0	0	0	0	1	0
50,000-99,999	0	3	3	0	3	0	0	0	1	0	0	0
49,999 or less	0	4	1	0	2	0	0	1	0	0	1	0

*Structural Location of Contact Point: 1 = no contact; 2 = director; 3 = middle level manager (e.g., deputy director); 4 = communication specialist; 5 = assigned liaison person; 6 = other. Numbers listed are the actual number of directors who responded in each code category.

Formalization of Interagency Agreements

Within groups, and especially within large and complex organizations wherein personnel shifts occur with regularity, it is wise to put all understandings in writing. Most of the Phase I directors reported that many written agreements had been established with many other local organizations (see Table VII-5). Consistent with the thesis of variability in community lifestyle and structure, the degree to which this had occurred varied systematically according to community size. Across all of the organizations except that of elected officials, an office from which they are more distant, directors within the more populated jurisdictions reported more frequent and more elaborate levels of formalization. This pattern varied minimally for state DES offices since funding requirements constrain most directors, even in small towns, to maintain many agreements in written form. While formalization is a useful managerial strategy to help regularize interagency relationships, it is used less in small communities wherein other forms of social glue may serve to lace agency directors together.

This pattern variation was even more pronounced within the Phase II data set (see Table VII-6). In every instance, directors within the more urbanized communities reported the highest levels of formalization. Even within the most rural communities, however, both the Phase I and Phase II directors frequently reported use of general memoranda of understanding when more binding agreements had not been prepared.

The importance of this strategy was documented further by the sharp contrast in the responses given by the "less successful" comparison group of directors. Except for the state DES offices and elected officials, these directors reported less frequent use of this strategy (see Table VII-6). Formalization of interagency agreements can do much to

TABLE VII-5
COMMUNITY SIZE VS. FORMALIZATION OF INTERAGENCY AGREEMENTS:
PHASE I DIRECTORS

Community Size	Formalization*			
	1	2	3	4
Law Enforcement				
500,000 plus	2	1	0	1
50,000-499,999	1	1	1	1
49,999 or less	1	2	0	1
Fire				
500,000 plus	2	1	0	1
50,000-499,999	1	1	1	1
49,999 or less	0	2	1	1
Public Works				
500,000 plus	2	1	0	1
50,000-499,999	1	1	1	1
49,999 or less	1	1	1	1
Elected Officials				
500,000 plus	0	1	0	2
50,000-499,999	3	0	0	1
49,999 or less	1	0	0	1
Red Cross				
500,000 plus	1	2	0	1
50,000-499,999	0	3	0	0
49,999 or less	1	1	0	2
State DES				
500,000 plus	1	1	0	2
50,000-499,999	3	0	0	1
49,999 or less	1	3	0	0

*Formalization: 1 = legally binding agreements exist; 2 = general memoranda of understanding as other major types of written agreements exist; 3 = a few agreements exist in writing, but of a relatively minor nature; 4 = no written agreements exist. Numbers listed are the actual number of directors who responded in each code category.

TABLE VII-6
COMMUNITY SIZE VS. FORMALIZATION OF INTERAGENCY AGREEMENTS:
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Formalization*							
	Phase II Directors				Less Successful Directors			
	1	2	3	4	1	2	3	4
Law Enforcement								
1 million plus	2	5	0	0	0	0	0	0
500,000-999,999	1	5	0	2	0	1	0	1
100,000-499,999	5	2	0	2	0	1	0	0
50,000-99,999	2	3	1	3	0	0	0	1
49,999 or less	2	3	0	1	1	0	0	1
Fire								
1 million plus	2	7	0	0	0	0	0	0
500,000-999,999	1	6	0	1	0	1	0	1
100,000-499,999	5	2	0	2	0	1	0	0
50,000-99,999	1	4	1	3	0	0	0	1
49,999 or less	1	4	0	1	1	0	0	1
Public Works								
1 million plus	3	5	0	1	0	0	0	0
500,000-999,999	1	5	1	1	0	1	0	1
100,000-499,999	3	3	1	2	0	1	0	0
50,000-99,999	1	4	1	3	0	0	0	1
49,999 or less	1	4	0	1	1	0	0	1
Elected Officials								
1 million plus	7	2	0	0	0	0	0	0
500,000-999,999	3	3	0	2	1	1	0	0
100,000-499,999	6	1	0	2	1	0	0	0
50,000-99,999	4	0	0	5	0	0	0	1
49,999 or less	3	3	0	0	2	0	0	0
Red Cross								
1 million plus	5	3	1	0	0	0	0	0
500,000-999,999	0	8	0	0	0	2	0	0
100,000-499,999	3	5	1	0	0	1	0	0
50,000-99,999	1	3	2	3	0	0	1	0
49,999 or less	2	1	1	1	1	0	0	1
State DES								
1 million plus	8	0	1	0	0	0	0	0
500,000-999,999	4	4	0	0	1	1	0	0
100,000-499,999	7	0	0	2	1	0	0	0
50,000-99,999	7	0	0	2	1	0	0	0
49,999 or less	4	2	0	0	2	0	0	0

*Formalization: 1 = legally binding agreements exist; 2 = general memoranda of understanding; 3 = a few agreements exist in writing, but of a relatively minor nature; 4 = no written agreements. Numbers listed are the actual number of directors who responded in each category.

regularize and stabilize the multiagency network, especially during times of crisis.

Number of Joint Programs

Within the structure of local government, emergency management offices are tiny in comparison to those with operational missions that require hourly responses to small-scale emergencies. Lacking in equipment and staff, most emergency management directors have expanded their resource base through the initiation of joint programs. These vary immensely in focus from public education programs and warning systems, to mitigation activities and the like. Review of data in Table VII-7 indicated that despite widespread use of this strategy, the Phase I directors in smaller communities expanded programs somewhat less frequently across each of the agency types except for law enforcement agencies.

Similarly, but much more pronounced, this same pattern appeared within the Phase II data set (see Table VII-8). The implication here--one paralleling the pattern of constraint reflected in the other dimensions of these interorganizational networks examined thus far--is that successful directors make use of this strategy. As city size increases, its use increases. Within smaller locales, more successful directors deviate from the pattern of their counterparts in similarly sized locations, and more frequently initiate joint programs to expand their limited resource base.

Further substantiation of this interpretation was reflected in the data pattern produced by the "less successful" director group. Overall, relatively few joint programs were reported. But when community size was controlled, those in the smaller locales reported the fewest number.

TABLE VII-7
COMMUNITY SIZE VS. NUMBER OF JOINT PROGRAMS: PHASE I DIRECTORS

Community Size	Number of Joint Programs* 1	2	3	4
Law Enforcement				
500,000 plus	0	1	0	3
50,000-499,999	0	0	2	2
49,999 or less	0	1	0	3
Fire				
500,000 plus	0	1	1	2
50,000-499,999	0	0	2	2
49,999 or less	0	2	0	2
Public Works				
500,000 plus	0	2	0	2
50,000-499,999	1	1	1	1
49,999 or less	0	3	1	0
Elected Officials				
500,000 plus	1	0	1	1
50,000-499,999	2	0	0	1
49,999 or less	2	0	0	2
Red Cross				
500,000 plus	0	0	1	3
50,000-499,999	0	0	3	0
49,999 or less	1	1	0	1
State DES				
500,000 plus	0	0	3	1
50,000-499,999	0	0	2	1
49,999 or less	1	1	0	2

*Joint Programs: 1 = no joint programs; 2 = one joint program; 3 = two to three joint programs; 4 = four or more joint programs. Numbers listed are the actual number of directors who responded in each code category.

TABLE VII-8
COMMUNITY SIZE VS. NUMBER OF JOINT PROGRAMS:
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Number of Joint Programs* Phase II Directors				Less Successful Directors			
	1	2	3	4	1	2	3	4
Law Enforcement								
1 million plus	0	3	1	3	0	0	0	0
500,000-999,999	0	1	6	0	0	0	1	0
100,000-499,999	1	1	4	3	0	1	0	0
50,000-99,999	1	0	3	5	0	0	0	1
49,999 or less	1	2	2	0	1	0	0	0
Fire								
1 million plus	0	1	3	5	0	0	0	0
500,000-999,999	0	0	7	0	0	0	1	0
100,000-499,999	0	1	3	5	0	0	1	0
50,000-99,999	1	0	4	4	0	0	0	1
49,999 or less	1	4	1	0	1	1	0	0
Public Works								
1 million plus	1	1	5	2	0	0	0	0
500,000-999,999	1	1	5	0	0	0	1	0
100,000-499,999	2	2	1	4	0	1	0	0
50,000-99,999	3	1	2	3	1	0	0	0
49,999 or less	2	2	0	1	1	0	0	0
Elected Officials								
1 million plus	1	1	3	4	0	0	0	0
500,000-999,999	3	0	4	0	0	0	1	0
100,000-499,999	1	2	1	5	0	0	0	1
50,000-99,999	3	0	1	5	1	0	0	0
49,999 or less	2	0	2	1	1	0	0	0
Red Cross								
1 million plus	0	1	3	5	0	0	0	0
500,000-999,999	0	2	4	1	0	0	1	0
100,000-499,999	1	2	3	3	0	1	0	0
50,000-99,999	1	3	1	4	0	0	0	1
49,999 or less	1	2	2	0	1	0	0	0
State DES								
1 million plus	2	0	2	5	0	0	0	0
500,000-999,999	1	0	3	3	0	0	1	0
100,000-499,999	0	0	3	6	0	0	0	1
50,000-99,999	1	0	1	6	0	0	0	1
49,999 or less	2	0	1	2	1	0	0	0

*Joint Programs: 1 = no joint programs; 2 = one joint program; 3 = two to three joint programs; 4 = four or more joint programs. Numbers listed are the actual number of directors who responded in each code category.

Once again, the subtle but real constraint of community size was evident in the pattern of interagency relationships.

Overlapping Memberships

In direct contrast to the other four dimensions of interorganizational structure, this feature was less evident within urban networks. As discussed in the previous chapter, many directors indicated that they belonged to various organizations in which members of other emergency units also participated. Seeing the sheriff or a deputy fire chief regularly at a Lions meeting or after church augmented their office-based interaction.

As indicated by the Phase I data set (see Table VII-9), only one of the four big city directors reported such overlapping memberships in each of the various organizational categories. Those in smaller communities more frequently reported such ties, however. While this differential was not as pronounced within the Phase II date set, it was consistent across three of the six organizational types. As indicated by data displayed in Table VII-10, a larger proportion (71%) of the directors in the largest communities had such ties with law enforcement agency personnel, in contrast to the slightly smaller numbers reported elsewhere (49,999 or less--57%; 50,000-99,999--63%). While much less pronounced, this same pattern was reported for Red Cross personnel (1 million plus, 38% had overlapping memberships; percentages for the other categories in descending order of size where: 13%, 33%, 13%, 14%) and state DES officials (1 million plus, 50% had overlapping memberships; percentages for the other categories in descending order of size were: 50%; 44%; 38%; 29%). In the other three organizational categories,

TABLE VII-9
COMMUNITY SIZE VS. TYPES OF OVERLAPPING MEMBERSHIPS: PHASE I DIRECTORS

Community Size	Overlapping Organizational Membership*					
	1	2	3	4	5	6
Law Enforcement						
500,000 plus	3	0	0	0	0	1
50,000-499,999	2	0	1	0	0	1
49,999 or less	0	0	1	1	1	1
Fire						
500,000 plus	3	0	0	0	0	1
50,000-499,999	0	1	2	1	0	0
49,999 or less	1	0	0	2	0	1
Public Works						
500,000 plus	3	0	0	0	0	1
50,000-499,999	4	0	0	0	0	0
49,999 or less	2	0	0	1	1	0
Elected Officials						
500,000 plus	2	0	1	0	0	0
50,000-499,999	2	1	1	0	0	0
49,999 or less	1	1	1	0	1	0
Red Cross						
500,000 plus	3	0	1	0	0	0
50,000-499,999	2	0	1	0	0	0
49,999 or less	2	0	2	0	0	0
State DES						
500,000 plus	3	0	1	0	0	0
50,000-499,999	4	0	0	0	0	0
49,999 or less	2	0	1	0	1	0

*Overlapping Organizational Memberships: 1 = no shared memberships; 2 = religious organization; 3 = civic or fraternal organization; 4 = social or hobby organization; 5 = other; 6 = more than one type of shared membership. Numbers listed are the actual number of directors who responded in each code category.

TABLE VII-10
COMMUNITY SIZE VS. TYPES OF OVERLAPPING MEMBERSHIPS: PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Types of Overlapping Memberships*											
	Phase II Directors						Less Successful Directors					
	1	2	3	4	5	6	1	2	3	4	5	6
Law Enforcement												
1 million plus	2	1	1	0	3	0	0	0	0	0	0	0
500,000-999,999	5	0	1	0	1	1	1	0	0	0	0	1
100,000-499,999	3	0	2	1	1	2	0	0	0	0	0	1
50,000-99,999	3	0	2	1	1	1	0	0	0	1	0	0
49,999 or less	3	2	1	1	0	0	0	1	1	0	0	0
Fire												
1 million plus	5	0	1	1	1	1	0	0	0	0	0	0
500,000-999,999	4	0	2	0	1	1	1	0	0	0	0	1
100,000-499,999	4	0	2	1	0	2	0	0	0	0	0	1
50,000-99,999	4	0	1	2	0	1	0	0	0	1	0	0
49,999 or less	4	0	2	1	0	0	1	0	0	1	0	0
Public Works												
1 million plus	7	0	0	0	0	1	0	0	0	0	0	0
500,000-999,999	6	0	0	0	1	1	1	0	0	0	0	1
100,000-499,999	6	0	1	0	0	1	1	0	0	0	0	0
50,000-99,999	4	0	1	1	1	1	1	0	0	0	0	0
49,999 or less	6	0	0	1	0	0	1	0	0	1	0	0
Elected Officials												
1 million plus	6	0	0	0	2	0	0	0	0	0	0	0
500,000-999,999	6	0	0	0	1	1	1	0	0	0	0	1
100,000-499,999	5	0	2	0	1	0	1	0	0	0	0	0
50,000-99,999	2	0	1	3	1	1	1	0	0	0	0	0
49,999 or less	3	2	1	0	0	1	0	1	1	0	0	0
Red Cross												
1 million plus	5	0	1	0	1	1	0	0	0	0	0	0
500,000-999,999	7	0	0	0	1	0	2	0	0	0	0	0
100,000-499,999	6	0	2	0	0	1	1	0	0	0	0	0
50,000-99,999	7	0	0	0	0	1	1	0	0	0	0	0
49,999 or less	6	0	0	0	0	1	1	0	0	0	0	1
State DES												
1 million plus	4	0	0	0	2	2	0	0	0	0	0	0
500,000-999,999	4	0	2	0	0	2	1	0	0	0	0	1
100,000-499,999	5	1	2	0	1	0	0	1	0	0	0	0
50,000-99,999	5	0	1	0	0	2	1	0	0	0	0	0
49,999 or less	5	1	0	0	0	1	1	0	0	0	0	1

*Overlapping Memberships: 1 = none; 2 = religious organization; 3 = civic or fraternal organization; 4 = social or hobby organization; 5 = other; 6 = more than one shared membership. Numbers listed are the actual number of directors who responded in each code category.

however, directors within the smaller communities reported more overlapping memberships.

Very few of the directors in the "less successful" comparison group reported such ties. Of those who did, there was a slight propensity for them to be in the smaller communities.

Based on these data (Phase II), some additional observations that pertain to these types of memberships also seem to reflect the constraint of community size. The small number of cases, however, require that we regard these patterns as hypotheses that ought to be pursued in further research before they are accepted. Yet, three patterns were striking. First, of all memberships involving religious organizations, most (71%) were held by directors in rural communities (49,999 or less). Second, overlapping memberships in civic organizations formed a near perfect curve; most (38%) were reported by directors in the middle size category (100,000-499,999), with decreasing proportions in each of the other categories. Finally, a significant proportion (54%) of the overlapping memberships of a social or hobby nature were reported by directors in communities that ranged in size from 50,000 to 99,999 persons. And nearly one-half of these (43%) were with elected officials.

In short, for many local emergency management directors, organizational memberships provide settings wherein they can interact with personnel from other emergency organizations. Among the successful director group (Phase I), this pattern was disproportionately reported by those in smaller communities. The randomly selected group revealed a more complex pattern in that this trend held for three of the organizational categories, but was reversed in the other three. Finally, it appeared that certain types of overlapping organizational memberships covaried with community size; for example, religious organizations were

most frequently reported as the location of such ties by directors in rural communities. This dimension of the interagency structure will require further research before its impact will be understood.

Domain Consensus

In contrast to the five behavioral (or descriptive) dimensions of interagency networks, two outcome (or perceptual) qualities were assessed in the previous chapter--domain consensus and coordination. Unlike the behavioral qualities just reviewed that clearly varied with community size, it was assumed at the outset that the two outcome qualities would reflect less fluctuation among different sized locales. In short, directors in small and large communities should be able to attain high levels of domain consensus (interagency agreement or goals and mission) and perceptions of good coordination. While the interagency structures, like the strategies used, varied according to community size, there was no reason to assume that effectiveness-related outcomes would do so.

Responses from Phase I directors are displayed in Table VII-11. Among these directors--selected because persons outside their community viewed them to be relatively successful--relatively high levels of domain consensus were reported. However, there was a consistent trend for those located in the smaller communities to report slightly lower levels. Since the highest levels of domain consensus were reported with executives in law enforcement and Red Cross agencies, and the lowest were with public works and state DES offices, there may be a pattern that merits further investigation. These small town directors had less access to the two latter agency types, less contact with them, and fewer numbers of overlapping memberships.

TABLE VII-11
COMMUNITY SIZE VS. DOMAIN CONSENSUS:
PHASE I DIRECTORS

Community Size	Domain Consensus*					
	1	2	3	4	5	6
Law Enforcement						
500,000 plus	0	4	0	0	0	0
50,000-499,999	0	4	0	0	0	0
49,999 or less	0	3	0	1	0	0
Fire						
500,000 plus	0	3	1	0	0	0
50,000-499,999	0	3	0	1	0	0
49,999 or less	0	1	2	1	0	0
Public Works						
500,000 plus	0	2	2	0	0	0
50,000-499,999	0	1	1	2	0	0
49,999 or less	0	2	0	2	0	0
Elected Officials						
500,000 plus	0	3	0	0	0	0
50,000-499,999	0	3	1	0	0	0
49,999 or less	0	2	1	1	0	0
Red Cross						
500,000 plus	0	4	0	0	0	0
50,000-499,999	0	2	0	0	1	0
49,999 or less	1	2	1	0	0	0
State DES						
500,000 plus	0	1	3	0	0	0
50,000-499,999	0	3	1	0	0	0
49,999 or less	0	1	3	0	0	0

*Domain Consensus: 1 = don't know how they view this program; 2 = agree very much; 3 = agree quite a bit; 4 = agree somewhat; 5 = agree a little; 6 = disagree. Numbers listed are the actual number of directors who responded in each code category.

The Phase II data set was more complex, but the overall pattern supported the original assumption that no differences would exist among different sized communities (see Table VII-12). Careful review of this data set indicated, however, that directors in mid-sized communities (i.e., 100,000 to 499,999) attained slightly higher levels of domain consensus with fire agencies, elected officials, Red Cross personnel and state DES officials. Somewhat lower levels were reported with law enforcement and public works departments by directors in these communities. Why such patterns might exist remained unclear and they may reflect nothing more than the small number of cases studied. Also, among the "less successful" comparison group of directors, the variations in domain consensus did not appear to be related to community size in any discernible pattern (see Table VII-12).

Perceived Interorganizational Coordination

As with domain consensus, it was assumed that interorganizational coordination would be **perceived and reported** as being relatively high by local directors irrespective of community size. Reports by the Phase I directors indicated that this clearly was the case with the state DES offices (see Table VII-13). The responses given for these were nearly identical across the three community size categories.

While slight, there were two patterns that may reveal a dynamic of importance. Both patterns pertained to the smaller communities in the Phase I data set. First, these directors perceived higher levels of coordination with elected officials than did those located within larger locales. Second, except for this agency type and the state DES offices which reflected little variation across different sized communities,

TABLE VII-12
COMMUNITY SIZE VS. DOMAIN CONSENSUS:
PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Domain Consensus* Phase II Directors						Less Successful Directors					
	1	2	3	4	5	6	1	2	3	4	5	6
Law Enforcement												
1 million plus	0	4	0	2	1	0	0	0	0	0	0	0
500,000-999,999	0	3	3	2	0	0	0	1	1	0	0	0
100,000-499,999	1	6	2	0	0	0	0	1	0	0	0	0
50,000-99,999	0	4	4	0	0	1	0	1	0	0	0	0
49,999 or less	0	2	3	1	0	0	0	0	0	1	0	0
Fire												
1 million plus	0	5	1	2	1	0	0	0	0	0	0	0
500,000-999,999	1	4	2	1	0	0	1	1	0	0	0	0
100,000-499,999	0	7	2	0	0	0	0	1	0	0	0	0
50,000-99,999	0	5	4	0	0	0	0	1	0	0	0	0
49,999 or less	0	4	1	1	0	0	0	0	1	0	0	0
Public Works												
1 million plus	1	6	2	0	0	0	0	0	0	0	0	0
500,000-999,999	1	3	3	1	0	0	1	1	0	0	0	0
100,000-499,999	1	5	3	0	0	0	0	1	0	0	0	0
50,000-99,999	1	2	5	1	0	0	1	0	0	0	0	0
49,999 or less	1	4	1	0	0	0	0	1	0	0	0	0
Elected Officials												
1 million plus	1	5	2	0	0	1	0	0	0	0	0	0
500,000-999,999	2	4	2	0	0	0	1	1	0	0	0	0
100,000-499,999	0	8	1	0	0	0	0	1	0	0	0	0
50,000-99,999	0	5	4	0	0	0	0	0	1	0	0	0
49,999 or less	0	4	2	0	0	0	0	0	1	0	0	0
Red Cross												
1 million plus	1	6	2	0	0	0	0	0	0	0	0	0
500,000-999,999	1	3	3	1	0	0	1	1	0	0	0	0
100,000-499,999	0	8	0	1	0	0	0	1	0	0	0	0
50,000-99,999	0	2	4	2	1	0	0	0	0	0	1	0
49,999 or less	1	3	1	0	1	0	0	1	0	0	0	0
State DES												
1 million plus	1	6	1	1	0	0	0	0	0	0	0	0
500,000-999,999	1	3	3	1	0	0	1	1	0	0	0	0
100,000-499,999	0	8	0	1	0	0	0	1	0	0	0	0
50,000-99,999	0	6	2	0	0	1	0	0	0	0	0	1
49,999 or less	0	4	2	0	0	0	0	1	0	0	0	0

*Domain Consensus: 1 = don't know how they view this program; 2 = agree very much; 3 = agree quite a bit; 4 = agree somewhat; 5 = agree a little; 6 = disagree. Numbers listed are the actual number of directors who responded in each code category.

TABLE VII-13
COMMUNITY SIZE VS. PERCEIVED INTERORGANIZATIONAL COORDINATION:
PHASE I DIRECTORS

Community Size	Perceived Interorganizational Coordination* 1	2	3	4	5	6
Law Enforcement						
500,000 plus	0	3	0	1	0	0
50,000-499,999	0	4	0	0	0	0
49,999 or less	0	2	1	1	0	0
Fire						
500,000 plus	0	3	0	1	0	0
50,000-499,999	0	4	0	0	0	0
49,999 or less	0	2	1	1	0	0
Public Works						
500,000 plus	0	3	0	1	0	0
50,000-499,999	0	1	3	0	0	0
49,999 or less	0	1	3	0	0	0
Elected Officials						
500,000 plus	0	0	1	2	0	0
50,000-499,999	0	3	1	0	0	0
49,999 or less	0	2	2	0	0	0
Red Cross						
500,000 plus	0	4	0	0	0	0
50,000-499,999	0	1	2	0	0	0
49,999 or less	1	2	1	0	0	0
State DES						
500,000 plus	0	2	1	1	0	0
50,000-499,999	0	3	1	0	0	0
49,999 or less	0	2	1	1	0	0

*Coordination: 1 = no contact; 2 = very well; 3 = well; 4 = adequately; 5 = poorly; 6 = very poorly. Numbers listed are the actual number of directors who responded in each code category.

directors in the smaller locations reported lower levels of interagency coordination.

These two trends did not appear within the Phase II data set wherein differentials across the community size groupings were less pronounced aside from three conspicuous points (see Table VII-14). First, only one of the six directors in the most rural settings perceived his/her coordination with the local public works unit as being "very well." This was a much lower proportion than that found within the other four community size categories (17% vs. a range from 33% to 56%). Second, all but one of the nine directors from the largest jurisdictions perceived their coordination with Red Cross personnel to be "very well"--a much higher proportion than was reported by directors in all of the other communities. Third, and finally, more of the directors located in mid-sized locales (100,000-499,999) reported somewhat higher levels of coordination with law enforcement agencies, elected officials, and state DES personnel. While all of these trends were subtle, they merit further investigation so that the dynamics of these interagency networks can be understood better.

Review of the responses provided by the "less successful" comparison group indicated only one pattern--the smaller the community, the lower the level of interagency coordination. This was the case for all six organizational types.

Given these seven features of these sixty-two interorganizational networks, what can be said about the impact of community size? One major conclusion loomed out: **structure and quality of emergency interorganizational networks vary significantly according to community size.** Without repeating all of the observations that have been noted

TABLE VII-14
COMMUNITY SIZE VS. PERCEIVED INTERORGANIZATIONAL COORDINATION: PHASE II DIRECTORS VS. LESS SUCCESSFUL DIRECTORS

Community Size	Perceived Interorganizational Coordination*											
	Phase II Directors						Less Successful Directors					
	1	2	3	4	5	6	1	2	3	4	5	6
Law Enforcement												
1 million plus	0	4	1	2	0	0	0	0	0	0	0	0
500,000-999,999	0	6	1	1	0	0	0	2	0	0	0	0
100,000-499,999	0	6	2	1	0	0	0	1	0	0	0	0
50,000-99,999	0	5	3	0	1	0	0	0	1	0	0	0
49,999 or less	0	3	2	1	0	0	0	0	1	0	0	0
Fire												
1 million plus	0	5	2	1	1	0	0	0	0	0	0	0
500,000-999,999	0	4	2	2	0	0	0	1	0	1	0	0
100,000-499,999	0	5	3	0	1	0	0	1	0	0	0	0
50,000-99,999	0	4	4	1	0	0	0	0	1	0	0	0
49,999 or less	0	4	2	0	0	0	0	0	1	0	0	0
Public Works												
1 million plus	0	5	2	2	0	0	0	0	0	0	0	0
500,000-999,999	0	4	1	3	0	0	0	2	0	0	0	0
100,000-499,999	0	3	4	2	0	0	0	0	1	0	0	0
50,000-99,999	0	3	3	3	0	0	0	0	0	1	0	0
49,999 or less	0	1	5	0	0	0	0	0	1	0	0	0
Elected Officials												
1 million plus	2	3	1	3	0	0	0	0	0	0	0	0
500,000-999,999	1	3	0	4	0	0	0	1	0	1	0	0
100,000-499,999	0	6	2	1	0	0	0	1	0	0	0	0
50,000-99,999	0	5	3	1	0	0	0	0	1	0	0	0
49,999 or less	0	2	3	1	0	0	0	0	0	1	0	0
Red Cross												
1 million plus	0	8	1	0	0	0	0	0	0	0	0	0
500,000-999,999	0	3	4	1	0	0	0	1	0	1	0	0
100,000-499,999	0	6	2	1	0	0	0	0	1	0	0	0
50,000-99,999	0	2	4	2	1	0	0	0	0	1	0	0
49,999 or less	0	3	0	3	0	0	0	0	0	1	0	0
State DES												
1 million plus	0	6	0	1	1	1	0	0	0	0	0	0
500,000-999,999	0	4	2	2	0	0	0	1	0	1	0	0
100,000-499,999	0	7	0	0	2	0	0	1	0	0	0	0
50,000-99,999	0	5	3	0	1	0	0	0	0	0	1	0
49,999 or less	0	4	2	0	0	0	0	0	1	0	0	0

*Coordination: 1 = no contact; 2 = very well; 3 = well; 4 = adequately; 5 = poorly; 6 = very poorly. Numbers listed are the actual number of directors who responded in each code category.

throughout this chapter, the following forms of variation are most critical:

1) Regardless of the size of their community, successful directors maintained frequent contacts with other local emergency agencies. Within a random sample of directors, however, those in mid-sized communities reported slightly higher rates of contact.

2) The larger the community, less the likely it is that the local emergency management director will maintain contact with the director of other local agencies aside from one type--state DES offices. Less successful directors seldom reported access to top officials in other agencies. This was true even in smaller communities wherein this was the pervasive pattern within both the Phase I and Phase II study groups.

3) Formalization of interagency agreements was used by large numbers of the successful directors. As the size of the community increased, the use of formalization increased. The less successful comparison group reported infrequent use of formalization.

4) Successful directors made extensive use of joint programs with all other local agencies. Those in smaller towns did so less frequently. Less successful directors reported that this structural feature of their interorganizational network was even less developed.

5) Overlapping organizational memberships were reported most frequently by the successful directors in smaller towns. This pattern contrasted sharply with that reported by other Phase I directors, who indicated such linkages in only three of the six agency types.

6) It had been anticipated that consensus about agency mission would not vary among communities of different size. Data obtained from these directors, however, suggested that there may be some systematic variation in such outcome qualities. While all of the successful directors in the Phase I group reported rather high rates of domain consensus, the randomly selected group reflected considerable variation by community size. Directors within the smaller communities reported slightly lower rates of domain consensus while those in mid-size locales indicated the highest levels. It may be that the interorganizational networks in mid-size communities have the capacity for greatest levels of integration given proportional levels of resource expenditures.

7) Interagency coordination with elected officials was perceived by the Phase I directors in the largest communities to be lower. These, of course, were the people with whom they reported less frequent contact. Directors in smaller communities reported the lowest levels of interagency coordination with the other contact organizations. These patterns did not appear in the Phase II data set, however.

These data provide a singular axiom for emergency management professionals: interagency structures, both their formation and maintenance, are critical for agency effectiveness. Insuring the integrity of these invisible webs of social bonding is a key strategy for success. As with other qualities of community life, the size of the jurisdiction is an important constraint on the shape of the interagency emergency network.

PART THREE

STRATEGIES FOR SUCCESS

CHAPTER VIII

VARIETIES OF MANAGERIAL STRATEGIES

Clearly, the establishment and nurturing of an interorganizational structure is a key strategy for local emergency managers. But how is the agency integrity maintained? These questions will be answered in this chapter.

The Concept of Managerial Strategy

In Chapter I, the concept of managerial strategy was discussed briefly. While the term is used widely by many organizational theorists, the current literature reflects at least three types of meanings:

1) It is a statement of intent that constrains or directs subsequent activities (**explicit** strategy).

2) It is an action of major impact that constrains or directs subsequent activities (**implicit** strategy).

3) It is a "rationalization" or social construction that gives meaning to prior activities (**rationalized** strategy) (Pennings, 1985a, p. 2).

Differentiation among these three uses is difficult, so some theorists correctly caution us to be careful. Starbuck (1985) in particular, has argued that many analysts err by assuming that organizational managers are highly introspective and calculating in their actions. In contrast to an overly rational image of managerial behavior, he proposed that: "They simply act and do not always reflect on their actions or watch the results of their actions" (Starbuck, 1985, p. 347). Managers, like people generally, often act without thinking and, at times, invoke a so-called strategy **retroactively** to justify a previous action. "Organizations operate to a great extent on the basis of

repetition and expectations instead of analyses and communications..." (Starbuck, 1985, p. 356).

In short, Starbuck has argued that the third meaning--rationalized strategy--is the most that ever could be inferred from analyses incorporating this concept. Of course, others disagree, sometimes in the extreme (see Lawrence, 1985; Child and Kieser, 1981).

After reviewing the literature carefully, however, and challenging several outstanding theorists to confront each other on the subtleties inherent in this concept, Pennings (1985b) offered a balanced perspective which recognized the disagreements among theorists, multiple meanings used, and utility of different emphases and approaches depending upon the researchers purposes and questions. Extending Thompson's (1967) imaginative dissections of managerial behavior, Pennings formulated 11 specific strategies whereby organizational executives may seek to cope with the many sources and forms of uncertainty they confront.

His imagery is consistent with the stress-strain perspective that guides this book. Those of us using this perspective propose that many managers actively seek to manipulate and control the mix of forces they confront. As Thompson (1967) put it, they seek to reduce the uncertainty that brings constant surprises. Put differently, effective managers seek to act **pro**-actively, rather than just **re-act** to whatever problems the environment serves up. These strategies (listed in Chapter I, Figure I-1) have multiple functions as managers seek to reduce environmental instability and uncertainty by initiating actions that forestall (mergers and joint ventures), forecast (organizational intelligence and overlapping membership), or absorb threatening groups (organizational intelligence and mergers).

In order to probe this important but still developing theoretical area, local emergency management directors were asked to identify two significant accomplishments. They then were asked to describe the approach they had used. If they did not mention them, they were then asked about four specific tasks (community disaster plan, community vulnerability analysis, emergency operations center, simulation exercises), and what kinds of strategies they used for those tasks.

Responses documented the three meanings of strategy outlined by Pennings. Local emergency management directors offered descriptions of their behavior that at times reflected explicit, implicit, and rationalized strategies. Very different levels of abstraction were also apparent. Some directors envisioned rather broad abstract strategies, while others referred to very concrete matters. These less abstract strategies are best viewed as **tactics**. A wide range of specific tactics can be clustered together so as to reflect a single general strategy.

Upon reviewing a complete listing of the responses provided to these relatively unstructured, broad questions, five themes were identified: 1) justification of mission; 2) structural location of the emergency management function and domain specification; 3) increased organizational capability; 4) increased interorganizational linkages; and 5) constituency-building activities. Collectively, these five broad strategies reflected efforts by these managers to renegotiate and maintain, the expectations held by others regarding the normative, interpersonal, and resource structures that defined their agency. Specific tactics are used by successful managers to secure agency integrity, which is reflected in increased agency credibility, (positive image and capability), awareness of the need for the agency (mission justification), and resource base (budget, staff, equipment).

Justification of Mission

Some directors emphasized that local emergency managers must be sensitive to the interests of people in their community. The trick is to gain insight into what the people view as potentially threatening and emphasize that in justifying the need for the agency. Since there is a general propensity for most people, including elected officials, to view emergency preparedness as a relatively low priority, identification of new hazards has been found to be a useful tactic. Hazardous materials, nuclear power plants, and terrorism were mentioned most frequently. The director in Davison County, South Dakota, who coordinates a multi-county program, described one tactic as follows:

> What I did on that occasion was, I got time with the county commissioners to show them a film. The film was 'The Day of the Killer Tornadoes.' Okay, to impress upon them the need for that generator, I felt they had to see an actual situation; the best thing I had was the film. Well, the film is very depictive of a black-out situation where you're trying to plan and do your thing in an EOC without lights. After seeing the film, all five commissioners voted unanimously to budget for the emergency generator.

Actual events were used too. The director in Pinellas County, Florida, described the effective use of a hurricane that hit Galveston and the Houston area. He secured permission to visit the disaster site. Upon returning he made a slide presentation to the commissioners wherein he highlighted various problems encountered by responding organizations and pinpointed specific planning and equipment deficiencies in their community.

Timing of such presentations was a key factor. This was true whether they were based on events that occurred within the community or illustrative ones highlighted by a film. The critical thing was the **explicit** linkage between a budget request, e.g., the generator noted above, and the event. Broad-based appeals for generalized support can be made this way, but the more effective directors commonly indicated specific needs and direct linkages.

Niche Location and Domain Specification

Many of the local directors stressed that they had been involved in consolidations, expansions, or structural reorganizations. They tried to maneuver their agency into whatever niche or structural location within local government would be the most supportive. Past histories, like personalities and views of related agency heads, were especially critical in determining the best niche. This diversity in niche location has been documented (Hoetmer, 1983b; Quarantelli, 1985). The Phase I interviews revealed the **reasons** for the mix in structural placement. Hence, in Dallas, Texas, the emergency management program was nested within the Department of Streets and Sanitation, whereas in Los Angeles County, California, it was a unit within the Chief Administrative Office. In Pinellas County, Florida, the director functioned within a division entitled Civil Emergency Services. In Peoria, Illinois, the agency was buffered somewhat by being one of five units within the Public Safety Department; the other four were police, fire, code enforcement, and building inspections.

Several of the Phase I directors, like those in Groton, Connecticut, and Cecil County, Maryland, revealed how they had assisted in the planning of the 911 system which was, in turn, absorbed within their respective agencies. There are many reasons why this arrangement seems to work well. One of the most important is the opportunity to work on other matters so that emergency management issues become part of the overall routine. The director from Groton put it this way:

> I think it's because I work with these people routinely on other things. I know where they're at. I know how their feelings are on these things in general.

Of course, this overall strategy included the widely used tactic of agency name change. In contrast to monikers wherein the words "civil defense" were paramount, most directors reported name changes within the past decade that resulted in this term either being replaced totally or moved to the end of a longer title. The civil defense function remained, but for most the emphasis was on the broader domain of emergency management and a multi-hazard rationale. A civil defense perspective was viewed as being less attractive and saleable at the local level, especially to elected officials.

Organizational Capability

Agency integrity was enhanced in many communities by specific actions taken by directors to demonstrate a particular level of capability. As one director put it, "The sheriff now calls me." The specifics varied widely, of course, but most commonly noted were evacuation plans, warning systems, shelter surveys, communications capability, and emergency operations centers, including mobile vans used for on-scene command posts.

A few stressed the tactic of designing a long-term developmental plan so that elected officials could envision a building block approach. New requests always were linked back to the "master plan" and located within it. Thus, while the specifics varied greatly, the general strategy was one of identifying a specific need that was perceived as not having been met, yet desired and supported in previous council actions. In short, subsequent programs and activities were supported because the director had established a track record and the elected officials could readily see--with help, of course--how the pieces fit together into a multiyear developmental package. A director from a rural county in Maryland, provided a good illustration of this strategy:

> One of the first things I did when I came into office here, besides developing some of the plans that we discussed, was to develop a resource manual for this county. It has everything in it you can dream of, from the clothing stores, food stores, the pharmacies, the doctors, dentists, just anything that you could ask me for....I thought, I don't need this just for myself. I'm going to give this to every police department in the county, every municipal office. And I sent one to each and every mayor. I think that was the biggest step because I received so many compliments about that from all over the county.

Increased Interorganizational Linkages

Many directors noted such tactics as training programs, disaster exercises, committees and task forces, mutual aid agreements, unification of volunteer agencies, and the identification of liaison personnel. Several stressed the importance of involving personnel from other local emergency agencies in the disaster planning process. While the specific tactics varied, actions were taken frequently to strengthen the bonding among local response agencies.

One director told of efforts to secure magnetic signs that could be affixed to the doors of automobiles owned by cooperating agencies so as to identify them as being "on loan" to his agency during responses for both actual events and exercises. Of course, other directors confronting different expectations by relevant agencies might **not** find this tactic workable or desirable. Nonetheless, it has worked for some.

In contrast, many stressed that they used an update of the community disaster plan as a legitimating device; it served as a basis for contact. Once inside the door, other issues might be raised and new areas of potential cooperation could be identified. Wherever and

however possible--the tactics varied--the nurturing of cross-agency linkages implicitly was identified as a global strategy.

Constituency-Building Activities

Many directors indicated that they found it useful to take agency personnel, and especially elected officials, to workshops. They would make all arrangements, of course, and then agency needs and problems could be discussed informally while all were traveling together. Others stressed their conscious efforts to maintain face-to-face contacts--"Get to know them on a first name basis." Those who de-emphasized interpersonally based tactics, reported alternative forms of constituency building. Most commonly noted were equipment donations, especially through access to surplus equipment programs. Knowing what another agency needs and locating a piece of used, surplus, or donated equipment for them was the tactic most commonly used by these directors to build constituencies.

Fifteen Key Strategies

Using Pennings' conceptualization of managerial strategies that had proven to be applicable to private firms and the ideas of other theorists like Pfeffer (1982) that were summarized in Chapter I, interview items were constructed to permit probing of 18 specific areas: 1) constituency support, 2) committees, 3) cooptation--advisory committees, 4) joint ventures, 5) coalitions, 6) agenda control, 7) entrepreneurial actions, 8) organizational intelligence, 9) mergers, 10) media relationships--general, 11) media relationships--disaster planning, 12) outside expert, 13) innovation, 14) product differentiation, 15) regulation, 16) flow of personnel, 17) licenses, and 18) criteria selection.

However, the final list addressed 15 areas because two of these pertained to media relationships and were combined into one strategy with multiple sub-sections. Additionally, two of Pennings' strategies had minimal relevance for directors in local emergency management agencies: 1) criteria selection, and 2) licenses. None of the Phase I directors could think of instances in which they had made efforts to influence the criteria whereby their agency would be evaluated. Indeed, other than requiring annual activity reports, the interviews revealed that relatively little evaluation had been made by local government. Similarly, probes regarding licensing yielded little beyond blank expressions. This confirmed Pennings' speculation that "The very nature of licenses is not congruent with those populations of organizations for which economic criteria are not crucial--for example, welfare agencies and educational institutions" (1981, p. 448).

The applicability of the 15 different strategies was explored systematically. Five had multiple dimensions (constituency support, coalitions, mergers, media relationships, and innovations). Collectively, they constituted the range of strategies used by these directors to maintain the integrity of their local emergency management agency and to improve the disaster response capability of their community.

Strategy One: Constituency Support

Emergency management agencies rarely have a well-defined constituency. The director from Los Angeles County put it this way:

> Various individuals and organizations here and there understand and promote comprehensive preparedness, and we work continually to expand this base of support. But few public constituencies gain political attention or overall governmental action in this field, except in actual emergencies.

As noted above, some directors tried to build constituencies in various ways. Taking local agency personnel to seminars was mentioned frequently. The following comment came from the director in Davison County, South Dakota, who coordinates a multi-county program:

> If there is a seminar somewhere, hell, pay their way to the thing, because they'll come back all charged up. They're going to come over and say, 'What are we doing in this area?' They're going to help you. If you let it drop, they're just going to lose interest.

This director emphasized that he always was available as a speaker for other groups. He contrasted his own approach to that of his predecessor:

> He went to great lengths to avoid public speaking engagements. Whether the guy just didn't like public speaking or what, I just don't know. But the secretary told me that she would make appointments for him to speak before a service club or something and he never once honored one of those commitments. He would go to any length to find something else to do on that given day. I make it a point to take every speaking engagement I can get a hold of because I think I've got a story to tell and I want to get out and tell it.

Expanding the resource base of another organization can be done more visibly, however, than offering yourself as a speaker. Many of the directors indicated that their agency provided training for personnel in other agencies. Others stressed how they assisted with their disaster planning expertise.

> A good example is Red Cross. I serve on their disaster advisory committee and they are right now in the process of applying for a FEMA grant for fire prevention and so I have been working with them on the development of that grant and since it's approved by the state fire marshal, who was our former fire chief, I made a couple of personal phone calls. It doesn't help me directly, but indirectly it helps me.

Of course, the most visible form of expansion was equipment acquisition. This was accomplished in many ways including joint purchases, acquisition of surplus property, external grant proposals, and the like.

Many directors, especially those in small communities, stressed the significance of volunteers and voluntary organizations as a constituency base. Police auxiliary units have been developed extensively, for example, by local emergency management directors in Wichita, Kansas, Peoria, Illinois, and North Tonawanda, New York. Special purpose units have been formed and nurtured by many directors until they have developed to the point of being able to survive independently. These were units like diving teams, search and rescue, communications, snowmobiles, four-wheelers and the like. Knowing when to let go was stressed by one director as a common failure. The resource can be coordinated by the emergency management agency without necessarily being structurally dominated by it. The guideline seems to be: encourage independence as early as possible.

The examples of volunteer use were numerous and varied. One that illustrates several ideas, however, was provided by the director from North Tonawanda, New York, who was trying to increase the awareness of the elected officials and several agency heads to their vulnerability because of rail transport of toxic chemicals. He encouraged a volunteer group to observe and record rail car movements:

> Eagle Scouts--they camped out for 30 days and had different shifts. I picked up their expenses for hamburgers, you know, McDonalds was close-by. And they made a big project out of it.

He was able to take some hard data to the elected officials who apparently were impressed with both the results and his method of obtaining them.

Finally, some directors seek to build constituency support by influencing state policies. This too takes many forms. The following example was offered by the Sedgwick County (Kansas) director:

> When the state was attempting to designate routes that trucks carrying hazardous materials would be required to take, I went up there and testified before a legislative committee on that.

In contrast, other directors emphasized their input to their state disaster services office or FEMA. Several, like the director from Durango, Colorado, emphasized that local emergency management directors must accept the responsibility to disagree--"Don't be a yes-man."

When certain policies are proposed that might have adverse impacts or receive minimal community acceptance, local directors need to make special efforts to communicate this to state officials. The director from Peoria, Illinois, put it this way:

> I've always been very vocal and very free in writing letters and letting them know what my opinion is. I don't know how much that influences, but I have never hesitated to let them know what my opinion is. And, you know, whether they take the option to listen or not, is of course, their decision, but I feel that what they do at the national level and the state level affects me at the local level and therefore it's my responsibility to let them know how they're impacting us. And when I say me, I mean the city and the program.

Apart from these forms of individualized efforts, several directors emphasized the role of state associations and national organizations like the National Coordinating Council for Emergency Management and the American Civil Defense Association. Through these, collective actions can be taken that affect state and national policies pertaining to emergency management. These associations at state, regional, and national levels represent the embryonic signs of professionalism.

Strategy Two: Committees

The use of committees is a commonly used strategy; 60% of these emergency management executives reported such use. Given minimal levels of funding and the unique coordination function most seek to perform, this should be expected. Many directors maintain permanent or standing

committees that are operational either for the planning process or actual emergency responses. These committees carry such names as "communications," "exercises," and the like. The most important lesson that was stressed regarding the use of the committee strategy is to consult with and involve the people who must implement a policy. Lack of adherence to this axiom was stressed by May and Williams (1986) as the most common reason for program failure in intergovernmental networks of shared governance.

In contrast to more permanent committees are task forces that are formed to focus on specific problems or issue areas. Thus, instead of trying to solve all of the problems alone--in isolation--effective managers form committees. The director from Los Angeles County stressed this during his interview. His philosophy--and his ability to implement it--was confirmed through interviews with the contact agencies in his community. If, through a series of three or four meetings, a group of individuals can come to see a need, they will begin asking how their agency might go about relating to that need. They must be nurtured to see the need so that **they**, not you, will propose the solutions and recommendations to their respective agencies. Ideally, the process culminates in each selling the proposal to their agency. Depending upon the issue, agency representatives may then, individually or at times collectively, go before the appointed or elected officials to seek a policy change.

All of the Phase I directors emphasized these themes, although they expressed them differently. The following explanation from the director in Groton, Connecticut, was typical:

> The people that you have to have on the committees are the people who are going to be involved in implementing what you're planning for. It does no good to have a plan developed by a committee that's not going to be involved in

implementing it because all you have is a plan to stick on the shelf.

Most emergency plans don't really get used during an emergency, in my opinion. When the emergency is going on, nobody has time to read the plan. If somebody writes a plan and gives it to the fire chief or the police chief or whatever, he'll say, 'Boy this is great. We've got a two inch thick plan.' And he'll stick it on the shelf and, you know, plans aren't the type of thing that anybody's going to sit down and read.

When the emergency happens there's no time to read - so, the whole planning concept is, you get the people that are going to do it to write down how they're going to do it. When something happens, they're going to do, hopefully, what they said they were going to do. Because they already thought out all the other options and thought, this is the proper way for this type of situation. So, if they write it, they know it, then chances are that's the way it's going to happen and the other people that were involved in the planning process are going to do the same thing. Hopefully, it should all mesh together. To have a plan written by somebody other than the end user doesn't serve much purpose beyond meeting a requirement that you have a plan.

Strategy Three: Cooptation--Advisory Committees

Through his intensive case study of the Tennessee Valley Authority, Selznick (1949) documented how organizational leaders could partially neutralize resistance and hostility by encouraging appointments from opposition groups to their governing board. As he put it, cooptation is "...the process of absorbing new elements into the leadership or policy-determining structure of an organization as a means of averting threats to its stability or existence" (Selznick, 1949, p. 13). Although there are risks, subsequent research has documented the use and effectiveness of this strategy (see Price, 1958; Child and Kieser, 1981).

Several of the Phase I directors discussed their advisory committees in favorable terms. Reflecting the diversity among these agencies, however, the composition of such councils or committees differed greatly. For example, in establishing a multi-county organization in five southeastern counties in South Dakota, the director described

how he established an advisory board which included one commissioner from each county. Later he pressed this group so as to require attendance by the part-time emergency management director for each county. This, he felt, increased their credibility and involved them in the decision-making process--a process that culminated in results they would be required to implement. His extensive use of this committee paralleled that reported by the directors in Peoria, Milwaukee, and elsewhere.

In many communities, such councils function because of formal legislative decree. Ordinances specify the membership of the council so the local emergency management director has minimal degrees of freedom in the selection process. At times, as illustrated by the Emergency Preparedness Commission in Los Angeles County, such legislatively mandated councils can be very active. This nine-person commission (three appointed by the Los Angeles County Board of Supervisors, three appointed by the mayor of the city of Los Angeles, and three appointed by the president of the Los Angeles County Division of the California League of Cities) has met regularly for years and has been the primary force in many of the emergency management programs. For example, its annual emergency preparedness seminar has been attended by hundreds of local officials and staff for several years. In contrast, the county government's own internal Disaster Council, which also was prescribed by ordinance and includes 12 of the 55 or so department heads, had gone for ten years without a formal meeting. The director worked regularly and successfully with their representatives, but in 1982 he developed a major earthquake preparedness initiative to involve department heads directly, and the Council then began scheduled meetings.

A council may be created, and legally must be maintained, but a director can control--to some degree at least--its activities. One director described his disappointment with a resolution passed by the commissioners that established an Emergency Management Committee. As he perceived it, this was a move that permitted the local fire districts to increase their power since three of the five appointees were from fire service organizations. The two others were a representative from the state police district office, and a private citizen who was not associated with an emergency organization. When asked how he handled this situation, the director replied: "...that committee, to this day, has not had one meeting." In short, he let the committee die over time simply by not calling meetings.

Obviously, such an approach carries political risks, but they may be worth taking under certain circumstances. It should be noted that this director resigned about a year after this interview. The point is to recognize the inherent strains that such councils represent. When used effectively, they serve as safety valves to release some of the steam that may become unmanageable if untended. They also serve as conduits into sectors of the community that may be unreachable in any other way. However, they are not a panacea and always represent a degree of potential risk.

Strategy Four: Joint Ventures

The annual seminar just referred to in discussion of the Los Angeles County Emergency Preparedness Commission illustrates a tactic that was reported by directors in numerous other communities. In general terms, the essence of this strategy is to encourage program development through interagency efforts. This strategy is the process component of

one of the structural variables discussed in Chapters VI and VII--joint programs. Most joint ventures don't evolve into more permanent and enduring programs, and many ventures involve matters other than programs. For example, community disaster exercises require a certain amount of interagency cooperation, but if the exercise is perceived as being a true joint-venture, the degree of commitment increases. Joint-ventures differ from exercises that are defined as "this thing we have to take a few hours with every year because our civil defense guy requests it."

Multiagency winter preparedness programs designed for public education, like those directed at other hazards including earthquakes, tornadoes, and hurricanes, were reported frequently. Clearly, this strategy is critical to most local emergency management directors. Many special purpose groups--amateur radio, snowmobile rescue--may seek participation in joint ventures so as to enhance their credibility, resource base, or both. At times, for example, with a fire exposition or disaster fair, as with community-wide exercises, numerous agencies may link together temporarily to accomplish a mutually beneficial task. Other times, especially with efforts involving equipment acquisition, the venture may have a more limited number of partners.

Strategy Five: Coalitions

A few directors indicated involvement in coalition development. There are many forms of this. Most directors indicated that they did not participate in lobbying efforts except on rare occasions when a highly critical matter was in question. For example, one director reported "some lobbying" for state legislation that mandated an enhanced 911 system. He personally contacted elected officials and encouraged local police and fire personnel to do so also. At times, however, a

collective push can be "coordinated." One director recounted his success in building a coalition that eventually led to the establishment of a hazardous incident team:

> ...we went out and we knew the support was there from the other departments within the county. Plus on the fire service side, where we knew they would support us.

Less obvious, but equally critical at times, are contacts with local elected officials. So directors were asked: "Have you ever tried to get others to argue your case, say before the commissioners, or elsewhere? Have any special interest groups--like snowmobile clubs or SAR units--ever spoken on your behalf?" Nearly two-thirds (64%) indicated that they never went this route.

> ...so most of the time we try to deal directly with the councilmen ourselves. We are their staff so unless we have a real problem, and then I usually depend upon my Advisory Council members, because they understand my program. They've been involved in it, so they come from a background knowledge rather than just trying to go out and find someone who may understand various portions of it but don't understand the total picture. I think many times you can get someone who can do you more harm by just by his lack of knowledge in the area.

Strategy Six: Agenda Control

One of the most important skills effective managers seek to develop is an early warning system, that is, to recognize when issues of potential threat are emerging. Quick action can control a situation that, if left unchecked, could emerge as a serious strain and source of disruption. For example, the Crisis Relocation Program (CRP) provided the director of Los Angeles County with a real challenge. He and many local government officials concluded that CRP in the greater Los Angeles area was unworkable. He arranged for federal and state advocates to brief the Emergency Preparedness Commission which then came to the same conclusion. While moving toward a recommendation for the Board of Supervisors to adopt a resolution along those lines, he was made aware that such an action might jeopardize future federal funding. He headed off confrontation by preparing a very delicately worded statement, which was adopted by the Commission and the Board of Supervisors as registering local opposition to CRP, but was used by some in the California State Disaster Office as a statement indicating local support of CRP. By cleverly creating "structured ambiguity," he defused the issue.

Many examples of such pro-active stances were supplied by the 29 directors (63% of those asked this question) who indicated use of this strategy. These ranged from the quick creation of a task force to deal with the Cuban-Haitian refugee problem, to the establishment of ground rules for a public debate. The task force visited another state so as to better assess the potential problems that would accompany a rapid influx of refugees. The debate case involved the director from Durango, Colorado, who knew of his limitations. When invited to a public debate regarding CRP, he designed a set of ground rules whereby the event would be structured. Rather than accept these, the group decided not to invite him. Thus, rather than walking blindly into a probable "no-win" situation, he was able to indicate limited cooperation, yet successfully avoided an unfavorable confrontation.

Strategy Seven: Entrepreneurial Actions

Many of the Phase I directors proved to be remarkably resourceful. The acquisition and outfitting of a mobile communications van used in Davison County, South Dakota, illustrated this strategy very well. Through various private contributors, the director had assembled a well-equipped mobile home that he frequently drove to the scene of disasters. On chilly, or hot and humid days, the van provided a comfortable place

for agency heads to gather. This single piece of equipment increased the centrality of the director within the webbing of the interagency emergency response system.

Many directors described their successes with state or federal grants. A wide variety of equipment items had been obtained through these extra-community sources. At times, directors did not obtain the equipment directly or for their agency, rather they assisted others in the grant application process. Frequently their role was in securing the application and informing the agency needing a particular piece of equipment of the potential funding source. Knowledge of what others need, is, of course, as crucial as information about funding sources.

A few Phase II directors indicated a personal philosophy that emphasized governmental responsibility; thus, they did not seek to augment their programs with resources from the private sector. In sharp contrast were those who did. In Phase II, the variety was great, ranging from acquisition of an automobile extrication device--"the jaws of life"--obtained by the director in Washington County, Maine, to grocery stores that print warning system procedures on their shopping bags. The director in Olmsted County, Minnesota, indicated that his board made it very clear that they expected him to secure additional funds, especially from the private sector. For every dollar of county funding, he reported that he had secured three additional dollars. Thus, some directors clearly viewed this strategy to be of paramount importance in maintaining the integrity of their agency.

Strategy Eight: Organizational Intelligence

In the interviews, directors were asked the following question to explore this strategy:

> In the private sector, market analysis is a key function--but it is only one way of keeping your ear to the ground. Organizational intelligence takes many forms.
>
> A. How do you keep posted on what's going on in other department's or sectors of the community?
>
> B. Some managers will join other organizations sometimes so as to keep posted. Have you found this a useful tactic?

The directors split evenly on the last part of this question. Exactly one-half indicated that they did, at times, seek to increase their intelligence capability by joining other organizations; the other one-half did not. Some of those who didn't were quite emphatic. "No, I don't do that sort of thing." But clearly this is a tactic that many use to implement this strategy.

There are many other ways of keeping posted. The Phase I directors emphasized the necessity of informal processes.

> That's a tough one. I think I have enough friends around that I would hear of it. Yes - a grapevine type of thing. If it was something that might involve me, or my department, or one of my volunteer groups or something we could assist with, I'd hear from it real quick. Very quickly, I'm sure.

Others stressed a consciously developed pattern of coffee drinking and luncheon dates so as to maintain steady flows of information. The director in Cowlitz County, Washington, for example, indicated that his office was in the Hall of Justice building so he regularly went to the Administration Building for coffee since this was where many other agency heads congregated. The director in Jackson, Mississippi, emphasized that local emergency managers cannot become isolated, although there are many pressures that promote it. Any who do will suffer commensurate losses in credibility. This pattern was stressed by many of the directors.

In contrast to these informal processes, some approached this strategy through more formalized tactics. "I'm on their mailing lists," replied the director from Providence, Rhode Island. Others stressed the importance of attending meetings, especially weekly staff meetings with the mayor or city manager. Still others referred to frequent contact with liaison representatives from various community agencies. And finally, a few emphasized formalization of county-wide coordinating councils that met on a monthly basis for a luncheon, "just so we can keep in touch." This collection of directors used a variety of tactics in implementing this strategy.

Strategy Nine: Mergers

Where should the emergency management function be nested within the structure of local government? In the abstract, several reasonable answers to this question might be given. One of the strongest cases can be built for a highly autonomous agency wherein the director reports directly to an appointed board, elected officials, or the chief executive officer. If the agency is nested within a fire, law enforcement, or other such mission agency, cooperation with others may be dampened because such structures of strain promote turf defenses.

Most of the 62 agencies (77%) that participated in this study were "independent" in the sense that the director reported directly to an elected or appointed official who was not directly associated with an emergency agency. In contrast, 15% were nested within either a law enforcement agency (8%) or a fire department (7%). The remaining 8% were associated with various other service units, most commonly public works. The lesson from these data is that there is no single "best" design that fits every community. The rationalistic organizational theories of

scientific management (Taylor, 1947) do not fit the relatively decentralized governmental structure that operates within the United States of America.

About one-fifth (19%) of the directors indicated that they had pushed for some type of merger--either vertically or horizontally--so as to be more effective. And over one-fourth (26%) indicated that some unit of local government had tried to absorb them. As would be expected, fire or police chiefs and sheriffs were the most frequently mentioned "culprits." When they had tried to grab the emergency management function, the local director perceived it in relatively negative terms: "All they were after was the money."

The intergovernmental division of labor varied too, often depending upon the ecology of the units. A county director with numerous relatively small municipalities confronts a very different set of tensions from those who have a single major municipality within their border. In Sedgwick County, Kansas, for example, there is an effective unified city-county emergency preparedness program that is jointly funded by the county and the city of Wichita. Other locations reflected more hostile city-county relationships. Within these structures of patterned strain, local emergency management directors indicated histories of aborted mergers and proposed reorganizations.

It is no accident that the emergency management function within Dallas, Texas, is nested within the Department of Streets and Sanitation. While many quickly think of police or fire agencies as logical locations, such views reflect an over-emphasis on the emergency phase. Of course, public works departments are involved then too, but they play even more significant roles during the recovery and mitigation phases. The program in Dallas, Texas, fared well because of the very strong sup-

port given by the Director of the Streets and Sanitation Department. The emergency management agency director indicated that he ran a small agency that constantly was fighting for survival with very large departments prior to the reorganization that provided him with the dispatch function for Public Works. Comparatively speaking, he was in a very weak bargaining position. Now he is a strong unit within the Streets and Sanitation Division and is in a much better position structurally to get the job done.

The lessons here are many, but there are three important ones. First, there is no single organizational design that will fit every locale given local histories, varied personalities, and priorities of agency heads. Second, while high agency autonomy brings many benefits, there are times when the emergency management function will be performed best when it is nested within a larger structure. Third, and finally, local directors should seek to identify the structural niche within the local governmental system wherein their support base will be strongest; they should design appropriate tactics to become nested there. This means using reorganizations, or the addition of new services, like the 911 system, as tactics to implement this strategy.

Strategy Ten: Media Relationships

None of the management theorists like Pennings or Child identified this area except in more general discussions of constituency support. However, the Phase I interviews, field observations following numerous disasters (Drabek, 1985b), and the hazards research literature (Drabek, 1986, pp. 165-170, 222-223, 335-336, 345-346) indicated that this matter merited extensive probing.

Some directors, especially those within another agency, viewed this strategy as inappropriate for them. The director in New York City, for example, indicated that the city government had a press office as did the police department, of which he was a unit. He was not authorized to meet with media representatives unless it was approved by these offices. He did not spend time "cultivating rapport" with media organizations. This too was the case for a few others, like the director in Detroit, Michigan, who indicated that the mayor had made it clear that no department heads were to go to the media unilaterally: "It goes back to politics. Our mayor has a running fight [with the media] and doesn't want departments going to them without his approval."

Most directors contacted, however, spoke at length regarding media relationships. The director from Peoria, Illinois, like many others suggested that "...the one thing that is most beneficial is to involve them in the planning." With reference to tactics for media cultivation, the director from Salt Lake City, Utah, offered the following list of pointers:

1) Be open and truthful.

2) Go to them only when you have something worthwhile.

3) Treat all media the same; don't favor the big ones.

4) Look for innovative ways to help them. For example, provide a taped summary of any events that they can reach by a telephone call. Have it updated every 30 minutes. Also consider providing some 'script books' for citizen information packages. Should you have an evacuation order or a boil (water) order, provide the media with a scientifically validated set of guidelines for citizen use.

The first point--being open and honest--was stressed most frequently. Although it was phrased differently, the Sedgwick County

director, who previously had worked in media organizations for many years, described his implementation of this strategy as follows:

> To me, getting the media involved means letting them know what you're involved in. And I think, the media are always interested in what an agency like this is doing. And even routinely, but then when an emergency comes along, they're vitally interested in what's happening. And so I make it a point to work with them to make sure that they get their story, in an emergency situation. During off times, I'm always feeding them something and they're always coming by here and saying what's new and what are you doing, what kind of programs have you got going? I try to keep them abreast of what we're doing and if I can see that with my experience in that business, if I can see something that might be of interest to them, I steer them in that direction, so they're appreciative of that.

Of course, the media can be a useful tool in public education. Many directors described their efforts with tornado, winter blizzard, hurricane, and earthquake awareness releases. By helping the public better understand the nature of the risks they confront and the range of adaptive actions that can be taken, the media can enhance program effectiveness. They also can increase the visibility of the emergency management program. A theme echoed by several of the managers was stated by the Davison County (South Dakota) director: "I like to appear before the service clubs, especially schools. I like to get a lot of press coverage whenever we have anything going on."

Such coverage reflects the ongoing relationship that this director nurtured carefully. Later in the interview he described his tactics.

> Just about every morning, one of the two individuals that I told you about, that are assigned from the media to the (local government)--just about every morning one of those two individuals is in here. They spend everywhere from 5 to 20 minutes and any needs are assessed at that time. Any news is assessed at that time. That's done almost on a daily basis.

As with any other sector of the environment of an organization, however, the media represents a potential threat; a few of the directors reported real horror stories. In most of the interviews, although

not all since the probe was potentially disruptive, directors were asked: "Have the media ever made adverse or negative comments about your agency?" Of the 43 to whom this question was asked specifically, slightly less than one-half (47%) responded "yes." The most common issue cited pertained to some aspect of crisis relocation planning or nuclear war survivability, although many instances of local or personal matters were mentioned too.

How can negative comments be avoided? In some cases they may be unavoidable, so the director from Dallas, Texas, advised: "you'll have to take your lumps." This is an inherent strain that needs to be recognized as such by those caught within its webbing. Reporters are encouraged to poke and probe to find holes in governmental structures of all levels. This strategic point of tension at times becomes an open sore for any in managerial positions.

After reviewing the range of responses given to probes in this area, three key ideas emerged. First, always be open, direct, and brief. Second, when an issue becomes hot, prepare a reasoned response that states your position and then ask, "Would it be better to let it die?" Those who had gotten embroiled in controversy, indicated that they believed they had made a mistake by being overly responsive--this did nothing but add fuel to the fire.

Third, and finally, local media organizations should be involved in the disaster planning process. Many of the Phase I directors described this tactic as part of the overall strategy of media relationships. Within the total data set, 43 of the 62 directors--69%--indicated use of this tactic. The mode or form of involvement varied greatly from the establishment of a "disaster media committee" to extensive participa-

tion in the design and operation of a disaster warning system beyond involvement in the nationally based emergency broadcast system.

Strategy Eleven: Outside Expert

Ideas, as Socrates noted centuries ago, at times became fused with their source. This can be good or bad, depending upon the circumstances. While ideas are best evaluated on criteria independent of their source, it is clear that "the right source" can advance proposals that might otherwise receive little attention. Of course, seldom are we prophets in our homeland, so about three-quarters (74% of those probed specifically) of the directors interviewed indicated that they had used the strategy of the outside expert.

The examples given varied from specialized expertise such as chemists or civil engineers making plans for emergency responses to hazardous substances, to state level officials and FEMA personnel. Specialized expertise from flood control experts, hurricane modeling teams and planning councils also was cited by several directors. In contrast, the director from Cabell County, West Virginia, indicated that he had found four nearby county directors to be useful in this strategy. Apparently it helps elected officials to hear firsthand from others that a problem is not unique to their community or that a proposed solution has worked in real life somewhere else. Inviting persons with recognized--or assumed--expertise was a commonly used strategy.

Strategy Twelve: Innovation

If an agency director can implement a variety of innovations **and** make others aware of his actions, program support may be enhanced. Most directors (77%) were quick to point out new programs that had been developed within the previous two years. These included cable

television-based warning systems, specialized programs for evacuation of handicapped people, hazardous materials planning, or major new equipment items like rain gauges or "voice-capable" siren systems.

One innovation--microcomputers--was mentioned so frequently in the Phase I interviews that a specific question was asked so as to ascertain its presence in the local emergency management scene. Two surveys of local governments--completed in 1982 and 1985--documented the very rapid adoption of this technology during the mid-1980s (Kraemer **et al.**, 1986). Similarly, a survey completed within the state of California of local government offices such as police, fire, and coroner also indicated extensive use of microcomputers in emergency responses (38%) (Bradford and Brady, 1984). It was not surprising that over one-half (52%) of the Phase I and Phase II directors indicated that they already were using a microcomputer. Over four out of five (83%) of those who had not yet acquired one were considering acquisition.

Unfortunately, however, the pace of hardware acquisitions appeared to exceed software development and in-service training opportunities. As a result, most directors indicated that they were making some use of this new tool but suspected that much more could be done with it than they were capable of doing. A few directors referred to the symbolic quality of the computer in promoting agency image. When media representatives or other agency personnel visited their offices, they made a point of highlighting their equipment even though their use pattern was not as extensive as they desired. Computers were being used for a variety of purposes. Beyond routine administrative routines such as word processing and budgeting, some had adopted or created software to create inventories of shelters, major emergency equipment resources, or contact personnel in other agencies. Of course, updating of disaster

plans was facilitated greatly for many of the directors who implemented this tool.

In addition to all of these uses, the director from Dallas, Texas, indicated that his office had created a computerized file of "critical facilities." This included locations where there could be hazardous materials, nursing homes whose residents would require evacuation assistance, and the like. These were keyed to a grid map so that when there was an emergency in a particular location, the staff quickly could determine whether or not any of these "critical facilities" were in the threatened area.

A few were experimenting with more elaborate applications such as direct hook-ups to the state disaster services offices, radio-based modems so as to facilitate computer linkages between their EOC and a field command post, and demographic data bases for evacuation planning and for keeping a more complete record of the flow of information and decisions into and out of the EOC. Given the coordination function within emergency management and the large number of data bases that exist within all levels of government, this new tool offers unlimited future applications. The director from the Town of Groton, recounted how EOC participants were "thrown a curve" during a nuclear power plant exercise when they received a message to inform all farmers to put dairy animals on stored feed. At the suggestion of the Tax Assessor, they linked the microcomputer in his EOC to the town's mainframe computer whereon the number of cows, as taxable items, was an entry in a database. This case illustrates the ingenuity that characterizes disaster responses and the reality of massive data sets that have been compiled for routine government operations. It also illustrates how a local manager can propagate an image of his agency as an innovative one

and how new technologies can enhance overall effectiveness and future capabilities.

Strategy Thirteen: Product Differentiation

Confronting shifting, and at times very uncertain market conditions, managers in the private sector often implement a strategy of product differentiation. Rather than putting all of the eggs into one basket, so to speak, their organizations can retract and expand different divisions as market demands alternate. To some degree, such comprehensive emergency management initiatives as the Integrated Emergency Management System (IEMS) reflect this strategy. For local constituencies most concerned about floods, tornadoes, earthquakes, or other natural disasters, relevant planning activities can be emphasized. Similarly, preparedness actions directed toward technological hazards, war, or terrorism can be highlighted when appropriate.

Apart from perceiving this broader approach to their agency mission as increasing their flexibility and effectiveness, some directors pinpointed specialized programs that they had developed. All of these contributed to their overall effort to promote community disaster response capability. But each also served to put their agency in a very positive light within the community. The examples given were varied and included many items that others would consider routine--activities like nuclear power plant planning, new shelter programs, initiation of an amateur radio warning capability, and a mobile command post. While routine to others, however, these initiatives were perceived by the particular director as being an expansion or new program within the local community. By implementing a new product, they were increasing the integrity of their agency.

One of the more unique examples of this strategy was described by the director of North Tonawanda, New York. When a former resident of that community moved to Florida, she discovered a program that she believed would benefit those she left behind. So she mailed a few samples of the "Vial of Life" to the emergency management director. The small plastic bottle contains a family information form--number living in household, health problems, doctor's name--and instructions to complete the form, return it to the vial, and to attach the vial underneath the top shelf of your refrigerator with a rubber band. The director secured a private donation to sponsor the project and arranged for the local fire department to distribute the vials. All three organizations were identified on the label; a subtle reminder to citizens that an emergency management team was alive and well in their community.

Strategy Fourteen: Regulation

Despite statements endorsing an unregulated free marketplace, managers in private firms have used the strategy of regulation. Often, of course, their press for new regulations is directed at others; the same holds true in the public sector. Rather than only responding to disasters, many of the directors interviewed indicated interest in mitigation. One approach to mitigation is to design, implement and enforce new regulations pertaining to building codes or flood plain land use. As the director from Dade County, Florida, put it: "If my predecessor had done this 20 years ago, my job would be much easier." But he, like nearly four out of ten (39%) of the other directors, had not yet gotten into it very extensively.

Hazardous materials legislation and activities related to flood plain management and insurance were the topics most commonly mentioned

by those who had tried to implement the regulatory strategy. Other areas noted included avalanche and earthquake zoning, dam safety programs, and tie-down and shelter requirements for mobile home parks. It is clear that this strategy is one that the emergency management community will need to expand on in the future as increased numbers of technologically caused catastrophes gain public attention.

Strategy Fifteen: Flow of Personnel

A few of the Phase I directors picked up on this point quickly:

> My secretary was secretary for the city manager. She brought with her a wealth of knowledge. She is more valuable to me for who she knows than what she does. I mean, she's a fantastic secretary, and I'm not downgrading her skills. But sitting in that city managers office, she met people and was able to put connections together that I would have never had the resources to do.

Other directors indicated that the primary way this strategy was relevant to them was through persons who had worked or volunteered in their office that now were employed in another emergency services agency. Thus, they knew they had a friend over there who understood their problems and capabilities.

While there are many ways that the flow of personnel can be manipulated by managers of organizations, a recurring theme was stressed in the Phase I interviews--the designation of liaison personnel. Rather than exploring the matter in general terms during the telephone survey, Phase II directors were asked about this specific tactic. A substantial majority (88%) indicated that they had a designated contact person in many of the local emergency services agencies. Indeed, the directors in Dallas, Texas, and Los Angeles County, California, indicated that they viewed this tactic as imperative. There were exceptions, however; the director from Davison County, South Dakota, who also managed a multi-

county jurisdiction, responded succinctly: "No, the size of our respective organizations here, I guess, really doesn't mandate that we utilize that particular method."

To some degree, at least, this situation may apply to all 15 of the strategies described in this chapter. Each of these broad strategies may be relevant--more or less--in all communities regardless of their size. But the degree of use and types of specific tactics may vary greatly.

CHAPTER IX

PATTERNED VARIATIONS: BIG TOWN-SMALL TOWN

Emergency management directors in large urban complexes like Los Angeles County, California, or Dallas, Texas, use various strategies in maintaining the integrity of their agencies. However, certain themes emerge, many of them parallel to those mentioned by directors in small towns or rural areas like Durango, Colorado, or Elkton, Maryland. Among the differences, sheer population size, and its consequences for inter-organizational structure, was part of what separated these directors, but the interviews also revealed additional elements of variation.

In this chapter we will explore the parallels and the differences in managerial behavior. Three topics comprise the chapter: 1) dimensions of community variation; 2) use of key strategies; and 3) community size and use of key strategies.

Dimensions of Community Variation

As the Phase I interviews were conducted, the reality of community size became apparent in both obvious and rather subtle ways. Directors of emergency management agencies in large metropolitan areas have resource bases that contrast sharply to those found in small towns. The EOC that has been constructed in Dallas, Texas, for example, represents a capability that never will be funded in a rural county. The same can be said for the amount of communications equipment, number of staff, and other aspects of the overall agency resource base. But these capabilities must be placed within the context of the assigned mission, size of the constituency served, and the many constraints that come with

the more complex organizational environments within which big city directors operate.

There are many subtleties related to community and organizational size. Some of these first were highlighted years ago through research on schools. For example, when Barker and Gump (1964) cataloged the diversity of curricular offerings and the size of resource bases found within big city schools, they contrasted sharply to those in smaller towns. There were numerous specialized teachers, forms of equipment, and course offerings within the large schools that students in small towns would never see. However, the research documented that those in smaller schools actually participated in a larger number of different roles. While both schools had football teams, choirs, pep clubs, and student governments, students in smaller schools participated in more of these. Those in larger schools tended to specialize, and the benefits of specialization were traded off against higher levels of participation in more diverse sets of activities.

Such subtleties must be kept in mind when considering communities. In North Tonawanda, New York, for example, the director indicated that he visited with the mayor several times per week. This pattern, paralleling that of the director in Davison County, South Dakota, and his commissioners, was a sharp contrast to the more formalized, segmented, and distant type of relationships described by directors in metropolitan areas.

The interviews highlighted three other themes that future analyses of community variation in emergency management programs must incorporate because they represent critical features of the organizational environments within which these managers operate. First, state laws and administrative procedures vary regarding the amount and form of funding

that will be made available to local directors. As was detailed in Table II-1, nearly all interviewed discussed varying amounts of funding they received through the state disaster services office which allocated monies provided by the FEMA. States vary, however, in how they allocate these funds to local governments.

States also differ in other ways. For example, in Maryland, all local emergency management directors are appointed, upon being recommended by the county commissioners, by the Governor. In Illinois, there is a provision that permits local governments to assess a special property tax that is earmarked for departments of emergency services. The competitive relationship among local agencies is skewed when such a funding arrangement has been constructed.

A second theme revealed through the interviews was that unique disaster events generate policy changes. Among all of the events described by these directors, the accident at the Three Mile Island nuclear power plant provided the best example. Local managers, like the directors interviewed in Groton, Connecticut and Cecil County, Maryland, had expanded resources because of changes in state and federal policies caused by this event. Thus, in Groton, the director described an emergency preparedness booklet that the utility company funded and mailed to all residents within his jurisdiction. This action, like plant-related exercises and funds for communications equipment, was a direct outgrowth of policy changes made after the TMI incident. These paralleled activities described by the Cecil County director, whose community was located near the Peachbottom nuclear power facility.

Finally, these communities differed in the degree to which emergency management activities were accepted by the public. This dimension was not explored systematically, but popped up in the interviews from

time to time, especially when civil defense activities were discussed. The research literature clearly demonstrates that risk perception varies with such qualities as age, gender, ethnicity, socioeconomic status, disaster experience, occupation, and fate control propensity (Drabek, 1986, pp. 323-331). In turn, although few comparative data bases are available, both communities (Wenger, James, and Faupel, 1980, p. 131) and societies (Burton, Kates, and White, 1978, pp. 99-102; 210-220) have been found to differ in the ways hazards are perceived and the range of adjustments that will be adapted and implemented (Mileti, 1980). Although initial work has begun on sorting out what accounts for these variations, we are just beginning to gain much understanding of these processes and their consequences.

Several elements of the case materials identified this theme, but none illustrated it as well as the interviews in Groton, Connecticut, known as "the submarine capital of the world." Large numbers of the people in and around Groton are employed by defense contractors that construct nuclear power submarines. When new crafts have been launched, the area has been invaded by anti-nuclear protesters. Hence, one of the emergency management demands on local organizations has been to provide protection for demonstrators because of local community hostility--attitude sets that have at times resulted in physical attacks.

Community support for civil defense activities is sufficiently strong that the local emergency management director has tested the warning siren system every month. Of course, such testing is done in large numbers of other communities, but in how many would the Groton procedure be tolerated?

> (Director): We test the siren warning system monthly. We're doing that as an educational process. Since we have voice capability as part of the system, we test the alert tone and we go on the P.A. and say: 'The steady tone is used for peacetime emergency. If you hear this tone for three minutes you should go inside, turn on your radio or television to receive instructions.' Then we test the attack tone.
>
> (Drabek): Now let me ask about this tone test. Do you mean to tell me that every month you have that kind of test? If I lived here, would I hear both the steady tone as well as the wavering tone? And then I'd hear a voice announcement telling me that if I ever hear that wavering tone, and it wasn't a test, that attack would be imminent. I would hear that every month?
>
> (Director): Every month.
>
> (Drabek): Why do you do it every month? It would seem to me that wavering tone would be anxiety-provoking. I mean, you know, if every month I'm hearing 'If you ever hear this tone enemy attack is coming,' I'm not sure I'd be real thrilled about that type of thing. Is there a reason?
>
> (Director): Well, we have negative feedback on that part of the program, but we do it as an educational process to teach people the difference between the two different civil defense sirens, so that you know, hopefully if there's a tornado coming, we sound the steady tone, people would recognize that as some type of civil emergency as opposed to a war-time one. That's the reason we do it.

The point here is not to question or encourage this policy, but rather to highlight differences in community acceptance of emergency management activities, including those associated with civil defense.

Just as population size establishes an important and complex form of constraint within which the managers of local emergency management agencies must act, so too do the factors described above. We'll return to these matters in the following chapter, but now we explore the dimension of community size in more detail.

Use of Key Strategies: Frequency and Cumulative Number

In Chapter VIII, 15 key managerial strategies were described and illustrated. Often, the frequency of their use was noted. A more comprehensive picture is available, however, through inspection of Table IX-1. Therein key aspects of each of the 15 strategies, including five

TABLE IX-1
MANAGERIAL STRATEGIES: FREQUENCY OF USE

Type of Strategy	% Using		
	Phase I	Phase II	Less Successful
1) Constituency Support			
A. Resource Base	100(12)*	80(36)	71(5)
B. Planning Expertise	92(11)	88(43)	57(4)
C. Policy Influence	83(10)	60(30)	43(3)
2) Committees	100(12)	50(25)	29(2)
3) Cooptation	46(5)	36(18)	0(0)
4) Joint Ventures	100(12)	84(41)	71(5)
5) Coalitions			
A. Formal Display of Support	33(3)	22(10)	0(0)
B. Informal Contact for Support	70(7)	28(12)	33(2)
6) Agenda Control	100(10)	53(19)	29(2)
7) Enterprenerial Actions	58(7)	54(25)	0(0)
8) Organizational Intelligence (join orgs.)	67(6)	47(21)	29(2)
9) Mergers			
A. Push for	18(2)	20(10)	29(2)
B. Absorb by Others	56(5)	22(11)	0(0)
10) Media (in disaster planning)	92(11)	65(32)	29(2)
11) Outside Expert	100(12)	65(22)	33(2)
12) Innovations			
A. New Programs	92(11)	71(22)	50(2)
B. Microcomputer Use	64(7)	50(25)	14(1)
13) Product Differentiation	92(11)	65(20)	33(2)
14) Regulation	82(9)	56(25)	33(2)
15) Flows of Personnel	92(11)	88(43)	71(5)

*Actual number of "yes" responses is listed within parenthesis; percentage based on exact number of directors who responded to the question.

sub-components, are listed for the three comparison groups. Note that when compared to the randomly selected Phase II directors, greater percentages of the Phase I directors reported use of every strategy except number nine--mergers. Similarly, the small collection of "less successful" directors (n=7) reported less frequent use of every strategy than the Phase II group, except mergers. Both groups were within one percentage point of each other regarding one form of coalition-building--5B, requesting representatives from such groups as snowmobile clubs or SAR units to informally contact elected officials for support.

Over one-half of the Phase I directors reported efforts by others to absorb their agency. Given the images of agency effectiveness they had established, this was not surprising. Conversely, none of the less successful directors reported any absorption efforts. Less effective units may not be as sought after in reorganizational battles as those led by managers who have negotiated images of success. Nearly one-third (29%) of the less successful directors indicated that they actively had pushed for a merger with some other unit. In contrast, less than one in five of the other directors had done so (Phase I, 18%; Phase II, 20%).

It was hypothesized that more successful directors would use a greater number and variety of these strategies. Data presented in Table IX-2 clearly supported this projection. In short, both in terms of the number of different managerial strategies they used, and for each one of these, the Phase I directors outranked the randomly selected group of local directors who, in turn, outranked the comparison group of less successful directors. The single exception--one that made sense theoretically--was the frequency with which other local agencies had tried to absorb their unit.

TABLE IX-2
AVERAGE NUMBER OF STRATEGIES USED

Study Group	Average Number of Responses		
	Yes	No	No Data*
Phase I Directors (n=12)	15	4	1
Phase II Directors (n=50)	10	8	2
Less Successful Directors (n=7)	6	12	2

*Question was not asked, not answered, etc.

TABLE IX-3
AVERAGE NUMBER OF STRATEGIES USED
PHASE II

Community Size	Average Number of Responses		
	Yes	No	No Data*
1 million plus (n=10)	11	7	2
500,000 - 999,999 (n=10)	10	8	3
100,000 - 499,999 (n=10)	11	7	2
50,000 - 99,999 (n=10)	10	8	2
49,999 or less (n=10)	7	12	1

*Question was not asked, not answered, etc.

Community Size and Use of Key Strategies

The above portrait, like the analyses of variations in interorganizational patterns described in Chapter VII, provides context for our final question: to what degree do the strategies used by local directors differ across communities of varied sizes? Recall that the average number of different strategies used by the Phase II directors was ten, in contrast to 15 used by the Phase I directors and six by the less successful group. As listed in Table IX-3, the ten Phase II directors in extreme rural areas used far fewer of the strategies than did the others. To permit more rigorous examination of this matter, Tables IX-4, IX-5, and IX-6 were prepared. Each of the 15 strategies is listed with the responses divided according to community size for each of the three comparison groups. Several important insights were revealed through data reviews.

Starting with the Phase I directors (Table IX-4), note that one-half or more indicated use of 14 of the 20 strategies regardless of the size of their community. In six instances (numbers 3-cooptation; 5A-coalitions, formal display of support; 5B-coalitions, informal display of support; 9A-mergers, push for; and 9B-mergers, absorb by others; and 12B-innovations, microcomputer use), less than one-half of the directors reported using the strategy described. All of these successful directors used five of the strategies (numbers 1A-constituency support, resource base; 2-committees; 4-joint ventures; 6-agenda control; and 11-outside expert). There were another five for which only one director reported non-use (1B-constituency support, planning expertise; 10-media, in disaster planning; 12A-innovations, new programs; 13-product differentiation; and 15-flows of personnel). For each of these, however, the director was located within a rural area.

TABLE IX-4
MANAGERIAL STRATEGIES: VARIATION BY COMMUNITY SIZE AMONG PHASE I DIRECTORS

Type of Strategy % Using	Community Size 500,000 plus	50,000 - 499,999	49,999 or less
1) Constituency Support			
A. Resource Base	100(4)*	100(4)	100(4)
B. Planning Expertise	100(4)	100(4)	75(3)
C. Policy Influence	75(3)	100(4)	75(3)
2) Committees	100(4)	100(4)	100(4)
3) Cooptation	75(3)	33(1)	25(1)
4) Joint Ventures	100(4)	100(4)	100(4)
5) Coalitions			
A. Formal Display of Support	100(2)	25(1)	0(0)
B. Informal Contact for Support	100(3)	100(4)	0(0)
6) Agenda Control	100(3)	100(4)	100(3)
7) Enterprenerial Actions	50(2)	75(3)	50(2)
8) Organizational Intelligence (join orgs.)	100(2)	50(2)	67(2)
9) Mergers			
A. Push for	0(0)	33(1)	25(1)
B. Absorb by Others	67(2)	100(3)	0(0)
10) Media (in disaster planning)	100(4)	100(4)	75(3)
11) Outside Expert	100(4)	100(4)	100(4)
12) Innovations			
A. New Programs	100(4)	100(4)	75(3)
B. Microcomputer Use	100(3)	75(3)	25(1)
13) Product Differentiation	100(4)	100(4)	75(3)
14) Regulation	100(4)	100(3)	50(2)
15) Flows of Personnel	100(4)	100(4)	75(3)

*Actual number of "yes" responses is listed within parenthesis; percentage based on exact number of directors who responded to the question.

TABLE IX-5
MANAGERIAL STRATEGIES: VARIATION BY COMMUNITY SIZE AMONG PHASE II DIRECTORS

Type of Strategy % Using	Community Size 500,000 plus	50,000 - 499,999	49,999 or less
1) Constituency Support			
A. Resource Base	78(14)*	88(15)	70(7)
B. Planning Expertise	90(17)	95(19)	70(7)
C. Policy Influence	70(14)	60(12)	40(4)
2) Committees	55(11)	55(11)	30(3)
3) Cooptation	40(8)	35(7)	30(3)
4) Joint Ventures	90(18)	85(17)	67(6)
5) Coalitions			
A. Formal Display of Support	17(3)	33(6)	10(1)
B. Informal Contact for Support	13(2)	39(7)	33(3)
6) Agenda Control	53(8)	64(9)	29(2)
7) Enterprenerial Actions	61(11)	61(11)	30(3)
8) Organizational Intelligence (join orgs.)	42(8)	61(11)	25(2)
9) Mergers			
A. Push for	32(6)	10(2)	20(2)
B. Absorb by Others	21(4)	30(6)	10(1)
10) Media (in disaster planning)	70(14)	74(14)	40(4)
11) Outside Expert	58(7)	79(11)	50(4)
12) Innovations			
A. New Programs	92(12)	64(7)	43(3)
B. Microcomputer Use	75(15)	45(9)	10(1)
13) Product Differentiation	90(9)	58(7)	44(4)
14) Regulation	59(10)	56(10)	50(5)
15) Flows of Personnel	85(17)	100(19)	70(7)

*Actual number of "yes" responses is listed within parenthesis; percentage based on exact number of directors who responded to the question.

TABLE IX-6
MANAGERIAL STRATEGIES: VARIATION BY COMMUNITY SIZE AMONG LESS SUCCESSFUL DIRECTORS

Type of Strategy % Using	Community Size 500,000 plus	50,000 - 499,999	49,999 or less
1) Constituency Support			
A. Resource Base	50(1)*	100(2)	67(2)
B. Planning Expertise	50(1)	50(1)	67(2)
C. Policy Influence	50(1)	50(1)	33(1)
2) Committees	50(1)	50(1)	0(0)
3) Cooptation	0(0)	0(0)	0(0)
4) Joint Ventures	50(1)	50(1)	100(3)
5) Coalitions			
A. Formal Display of Support	0(0)	0(0)	0(0)
B. Informal Contact for Support	0(0)	0(0)	67(2)
6) Agenda Control	100(1)	0(0)	50(1)
7) Enterprenerial Actions	0(0)	0(0)	0(0)
8) Organizational Intelligence (join orgs.)	0(0)	50(1)	33(1)
9) Mergers			
A. Push for	0(0)	0(0)	67(2)
B. Absorb by Others	0(0)	0(0)	0(0)
10) Media (in disaster planning)	50(1)	0(0)	33(1)
11) Outside Expert	0(0)	50(1)	33(1)
12) Innovations			
A. New Programs	100(1)	0(0)	50(1)
B. Microcomputer Use	50(1)	0(0)	0(0)
13) Product Differentiation	100(1)	0(0)	33(1)
14) Regulation	100(2)	0(0)	0(0)
15) Flows of Personnel	0(0)	100(2)	100(3)

*Actual number of "yes" responses is listed within parenthesis; percentage based on exact number of directors who responded to the question.

This lower use pattern by rural directors was even more pronounced for six of the other strategies: 3-cooptation; 5A-coalitions, formal display of support; 5B-coalitions, informal contact for support; 9B-mergers, absorb by others; 12B-innovations, microcomputer use; and 14-regulation. Similarly, while only two of the Phase I directors reported that they had pushed for mergers, neither were in the largest communities.

There were eight strategies that varied slightly by community size. Of course, with only 12 communities to compare, these slight variations must be viewed with caution. Cooptation (3), while used by only five of the 12 Phase I directors, was more frequently used by those in the largest communities. This also was the case for the formal aspects of coalition formation (5A, formal display of support, refers to asking groups to speak on behalf of the emergency management program during a formal meeting or hearing of elected officials). Similarly, more of the directors in the largest communities indicated that they joined other organizations to help them monitor community activities (8-organizational intelligence).

Phase I directors in both larger and mid-sized communities, reported more frequent use of regulation (14-press for use of mitigation efforts like building codes and flood plain management). They also more frequently requested representatives from local groups to talk informally with their commissioners or appropriate elected officials on behalf of the emergency management program (5B).

None of the four directors in the smaller communities (49,000 or less) used this approach. Similarly, while only five of the 12 Phase I directors reported efforts by other agencies to absorb (9B) their unit in recent years, none were in the small communities. Neither of the

Phase I directors who reported that they had pushed for a merger (9A) were in the largest communities. Finally, directors in smaller communities less frequently reported use of the innovation strategy in terms of microcomputer use (12B).

Analysis of the Phase II directors--the comparison group that was selected randomly--revealed a very contrasting portrait. Here, the slight trend pattern noted among the Phase I directors--less extensive use of these strategies by rural directors--was far more pronounced. Given the random selection procedure and the larger number of cases (n=50), these data indicated that the use of these strategies was clearly related to community size.

In only two of the 20 strategies was there a reversed trend. Directors in the smallest communities (49,000 or less) used 18 of these managerial strategies less frequently than did those in more urbanized locales. For both of these strategies (5B and 9A), directors in one of the two larger clusters of communities more frequently reported use of it. Strategy 5B (coalitions, informal contact for support) was used by one-third of the directors in rural locales, whereas only 13% of the directors in the largest communities did so. In contrast, 39% of those in mid-sized communities reported such use.

Similarly, one in five (20%) of the directors in the smallest jurisdictions reported that they had pushed for a merger (9A). Among directors in the largest communities this strategy was used by almost one in three (32%). Those in mid-sized locations reported the lowest usage rate (10%).

Comparison of the use pattern between the two groups placed these differences into context. Out of the 20 strategies, in only four cases did the Phase II rural directors exceed the usage rate of the more

successful Phase I directors (3-cooptation, Phase I-25%; Phase II-30%; 5A-coalitions, formal, Phase I-0%; Phase II-10%; 5B-coalitions, informal, Phase I-0%; Phase II-33%; and 9B-absorb by others, Phase I-0%; Phase II-10%). Since these were among the least used of the strategies, however, comparison hese very slight differences are best viewed as probable non-differences.

The contrast among the other 16 strategies, however, indicated that the Phase I directors in the smaller communities made more use of these strategies than did their counterparts within the randomly selected pool. In general, this held true for the Phase I directors in the larger communities, as well. The single exception pertained to mergers. None of the Phase I directors in the largest locales had pushed for a merger, while nearly one-third (32%) of the Phase II directors in comparably sized communities had done so. Similarly, about two-thirds (67%) of the Phase I directors in large communities indicated that another agency had tried to absorb them, whereas this was reported by only one in five (21%) of those in the Phase II group from communities of comparable size. Upon examining the ten strategies used most frequently by Phase II directors in communities of different size, six were discovered to be common to all three groups (1A-constituency support, resource base; 1B-constituency support, planning expertise; 4-joint ventures; 10-media, in disaster planning; 12A-innovations, new programs; and 15-flows of personnel). While the use rate was much lower by small town directors, these six strategies were among the ten most frequently used by all.

Strategy 12B (innovations, microcomputer use) was among the top ten only for those directors in the largest communities. Directors in mid-sized communities included three strategies that were not among the top

ten used by directors in larger or rural communities (6-agenda control; 7-entrepreneurial actions; and 8-organizational intelligence, joint organizations). Strategy 14 (regulation) was among the ten most frequently used by directors in the smallest communities, but not by the others. Strategy 11 (outside expert) and strategy 12A (innovations, new programs) were among the top ten for directors in mid-sized and small communities, but not for those in the largest. Finally, strategy 1C (policy influence), strategy 13 (product differentiation), and strategy 15 (flows of personnel) were used by directors in the largest and smallest communities.

Comparisons of these patterns to the small group of less successful directors yielded few insights because of the relatively infrequent use of these strategies regardless of community size. The use rates reported by these directors were compared to the Phase I data set to ascertain differences within comparably sized communities. The Phase I rate was higher in most of the 60 comparisons, although some were identical. Only two exceptions were noted, and only one of these has possibly substantive significance. The insignificant instance involved the last strategy (15-flows of personnel); all three of the less successful directors in rural areas indicated use of this pattern, whereas only three of the four Phase I directors did so. In contrast, however, was the push for mergers by these same rural directors. Only one of the four Phase I rural directors indicated use of this strategy, whereas two out of three of the less successful rural directors did so. In short, the primary point validated by these data was the much lower use rate of these 20 managerial strategies by the less successful director group. Furthermore, this lower rate of use was consistent regardless of community size.

Stepping back from these finer points of detail and reflecting upon the numerous contrasts discussed so far, seven general conclusions may be drawn from this data set.

1) Community size affects the emergency management function as does such other factors as: (a) state legislation and policies promulgated by state DES offices regarding funding formulas, local agency titles and mission emphases, etc.; (b) unique disaster events and policy changes they generate; and (c) degree to which emergency management activities are accepted by the local community.

2) The Phase I directors used all but one of the 20 managerial strategies (strategy 9A--push for mergers) more frequently than the Phase II group; except for this strategy, Phase II directors reported higher use rates than the sub-sample of less successful directors.

3) Phase I directors used a larger total number of the strategies than did those in Phase II, who in turn used far more than did the less successful directors.

4) Community size was related to the use pattern for eight of the strategies among the Phase I directors. In the smallest jurisdictions six strategies were used less frequently: 3-cooptation, 5A-coalitions, formal display of support; 5B-coalitions, informal contact for support; 9B-mergers, absorb by others; 12B-innovations, microcomputer use; and 14-regulation.

5) The Phase II directors located in the smallest communities indicated less use of 18 of 20 of the managerial strategies.

6) Directors in small jurisdictions more frequently used strategies 5B (coalitions, informal contact for support) and 9A (mergers, push for).

7) More Phase I directors in the smallest communities more frequently used more of the strategies than did their counterparts in the Phase II sample.

PART FOUR

CONCLUSIONS

CHAPTER X

MAINTAINING AGENCY INTEGRITY

Most directors of local government agencies believe that disaster will strike their community someday, quite possibly while they occupy their current positions. Yet, there always are other priorities; other community needs and interests press for attention. Within this competing mix, emergency management often does not fare well. When it does, though, it is not accidental. Somewhere in the system somebody--often many somebodies--are pushing along a variety of fronts to improve the emergency response capability of the community and to make it a safer place to live.

This chapter presents a summary of the major insights gleaned from the interviews conducted with 62 local emergency management directors. Twelve were selected specifically because they were perceived to be successful; their programs were thought to be operating reasonably effectively by those who nominated them. Interviews with 79 executives who managed operationally oriented programs within their communities--police and fire chiefs, for example--confirmed these choices. So too did comparisons based on responses received through telephone interviews with 50 local emergency managers who were selected through a multistage randomization process. Five topics comprise the lessons: 1) key strategies; 2) structural requirements; 3) consequences of decentralization; 4) advice for new managers; and 5) the future of emergency management.

Key Strategies

Like managers in organizations designed for different purposes, directors of local emergency management agencies confront structures of strain. Often program goals lack clarity and there may be little consensus about them. Conflicting expectations and priorities may be announced by officials who manage other agencies that are located both above them and along side. There is much uncertainty in the system. Broad coping strategies, reflecting an array of specific tactics, are used by successful managers to maintain agency integrity. Integrity is reflected in perceptions of agency credibility (positive image and capability), heightened awareness of the need for the agency (mission justification), and an expanded resource base (budget, staff, equipment).

While their emphases differ, the strategies for coping with environmental uncertainties that were used by local emergency managers paralleled those documented for other executives. In an abstract sense, directing an emergency management agency has many parallels to managing any other type of organization. These data confirmed the opinions offered previously by several management theorists (Senior Executive Policy Center, 1984). In general terms, five strategies were described by the directors interviewed when they identified their major accomplishments and the means they had used to achieve them: 1) justification of mission; 2) structural location of the emergency management function and domain specification; 3) increased organizational capability; 4) increased interorganizational linkages; and 5) constituency building activities. These five broad strategies reflect efforts by managers to renegotiate and maintain the expectations held by

others regarding the normative, interpersonal, and resource structures that defined their agency (Haas and Drabek, 1973).

Strategies for coping with uncertainty were pursued in depth by cross-referencing the experiences of these local emergency managers with a paradigm based on extensive study of managerial behavior (Pennings **et al.**, 1985). Most of the Phase I directors, used most of 18 managerial strategies (see Table IX-1). They used them more frequently than the Phase II directors who had been selected randomly. All of the Phase I directors regularly used five of the strategies. They developed constituency support by actively trying to increase the resource base of other local agencies (1A). They extended their agency through the use of committees (2) and joint ventures (4) whereby executives in other local agencies were encouraged to buy into the emergency management program. They arranged for outside experts (11) to make appearances in a variety of settings. Finally, they tried to nip in the bud controversial or potentially threatening issues before they got out of hand (6).

Undoubtedly reflecting the less complex organizational environment in which they operate, Phase I directors in the smallest jurisdictions used six strategies less frequently than did their counterparts in larger communities. Certain forms of cooptation (3) like advisory committees, were used less frequently by small town directors. Similarly, they were less apt to engage in coalition formation by trying to get other groups to speak before elected officials in either public hearings (5A) or informal settings (5B). Although they less frequently confronted merger efforts whereby other agencies tried to absorb them (9B), they more often had pushed for mergers (9A) from time to time. Similarly, they less often used one tactic within the general strategy of innovation, that is, the adoption of a microcomputer (12B).

Finally, they less frequently had tried to use regulation (14) as a way to maintain agency integrity.

When compared to directors in similarly sized communities, however, these pattern differences were transformed. That is, Phase I directors in smaller communities used all of these strategies far more extensively than did those who were selected randomly (Phase II) from less populated jurisdictions. In short, directors of local emergency management agencies who are most successful use these strategies more extensively. The rate of use for most, but not all, however, varied by community size.

Structural Requirements

Although certain daily operational responsibilities were nested within some local emergency management agencies, e.g., 911 communications, most agencies functioned exclusively as the disaster coordinating unit within local government. Mission or domain expectations varied widely regarding both disaster mitigation and civil defense activities. In many communities disaster mitigation activities, such as the promotion of flood insurance, were viewed as new areas in which several other agencies might play lead roles. Actions related to civil defense were not commonly perceived as being targets of opportunity by other agencies. Rather, the issue was the degree to which these should be pursued. Within the 12 Phase I communities, this varied from full acceptance and major support to outright resistance. As one director put it, "The result was that they [county commissioners] said, 'okay partner, as far as crisis relocation is concerned, that's back burner. You will not pursue that subject in your office until the federal government has its act together a little bit better'."

In general, however, comprehensive emergency management, especially as conceptualized within the Integrated Emergency Management System (IEMS) initiative, was recognized as a viable approach that permitted the requisite flexibility to insure community support across sectors with diverse viewpoints. Local emergency management agencies are embedded within a network of interagency relationships. Seven specific features of these networks were assessed. The successful group of Phase I directors functioned within networks that were more integrated than those found elsewhere. More specifically, the following structural requirements were documented among the successful directors:

- Community agencies with disaster related responsibilities and state DES officials were contacted frequently (frequency of director contact).
- When these contacts were made, persons consulted were near the top (structural location of contact point).
- Interagency agreements were formalized rather than being left to casual understandings (degree of formalization).
- Except for public works departments, whose involvement was lower, two or more joint programs were maintained with each of the other seven types of local agencies studied by over one-half of the Phase I directors (number of joint programs).
- Memberships in other community organizations provided over one-half of the Phase I directors with additional settings wherein they interacted with personnel from four of the eight types of agencies studied (overlapping memberships).
- Phase I directors perceived that top officials in the eight other community agencies studied agreed with them regarding the mission of the emergency management program (domain consensus).
- Phase I directors perceived that their activities were well coordinated with six of the other local agencies studied; lower ratings were given to local businesses and elected officials (perceived coordination).

The interagency networks in which the Phase I directors were embedded were quite well integrated. This integration was reflected in each of five descriptive characteristics. On two outcome measures--domain consensus and perceived coordination--the Phase I directors rated higher than the randomly selected group (Phase II) who, in turn, rated higher than a small sub-sample of less successful directors. The ratings given by the Phase I directors were validated further through responses provided by 79 officials interviewed in seven local contact agencies within each of the 12 communities studied.

When the data base was separated according to community size, certain features of these interagency networks varied significantly. Without repeating all of the conclusions that were summarized at the end of Chapter VII, it is important to note the following points:

- Directors within mid-sized communities reported slightly higher rates of agency contact for seven of the eight agency types. The exception was elected officials; directors in the smallest communities had the highest rates of contact with them.
- The larger the community, the less frequently the local emergency management director maintained contact with the director of other local agencies aside from one type--state DES offices. Typically, directors in larger communities contacted middle level managers or assigned liaison personnel whereas those in smaller communities were linked to the agency head.
- As the size of the community increased, the use of formalization increased except for agreements with elected officials. Less successful directors reported infrequent use of formalization.
- Directors in smaller towns made less extensive use of joint programs.
- Overlapping organizational memberships were reported most frequently by the successful directors in small communities.
- Directors in mid-sized communities had the highest levels of domain consensus.

- With the exception of elected officials, which they rated rather low, directors in larger communities perceived their activities to be better coordinated with other local agencies than did those in smaller locales.

In short, these data provide a singular axiom for emergency management professionals: **interagency structures, both their formation and maintenance, are critical for agency effectiveness.** Insuring the integrity of these invisible webs of social bonding is a key strategy for success.

Consequences of Decentralization

Throughout this book, the profound importance of two features of American society has been emphasized: 1) community size and 2) decentralization. Both contribute to the enormous variation that characterizes local emergency management agencies. While sharing some commonalty in name and mission, these agencies are highly heterogeneous.

There are several dimensions to this heterogeneity, however. First, and most important, is the location of the agency within the structure of local government. There can not be a single answer regarding structural location; rather this must reflect both local community history and the priorities and personalities of the managers of related units of local government. While the strongest case can be made for agency autonomy, so that the director can relate to all others from a position of neutrality, this is no panacea. The wise director will seek to have his agency located within the niche that provides the strongest support base. At times the loss in autonomy will be more than offset by being buffered by a strong supporter. This varies over time and across communities.

The strategy of merger is an important one. Some part-time directors may be able to operate more effectively if they can absorb additional functions or jurisdictions so as to aggregate a sufficient base to justify a full-time position. Several of the Phase I communities illustrated this pattern; the tradeoffs of these requirements, however, must be assessed against the time constraints imposed by additional responsibilities. These may be such that some communities will continue to be better served by a part-time director. If assigned numerous additional responsibilities, full-time directors may allocate less energy to emergency management than those who hold part-time positions. As in any other social setting, money does not necessarily produce success.

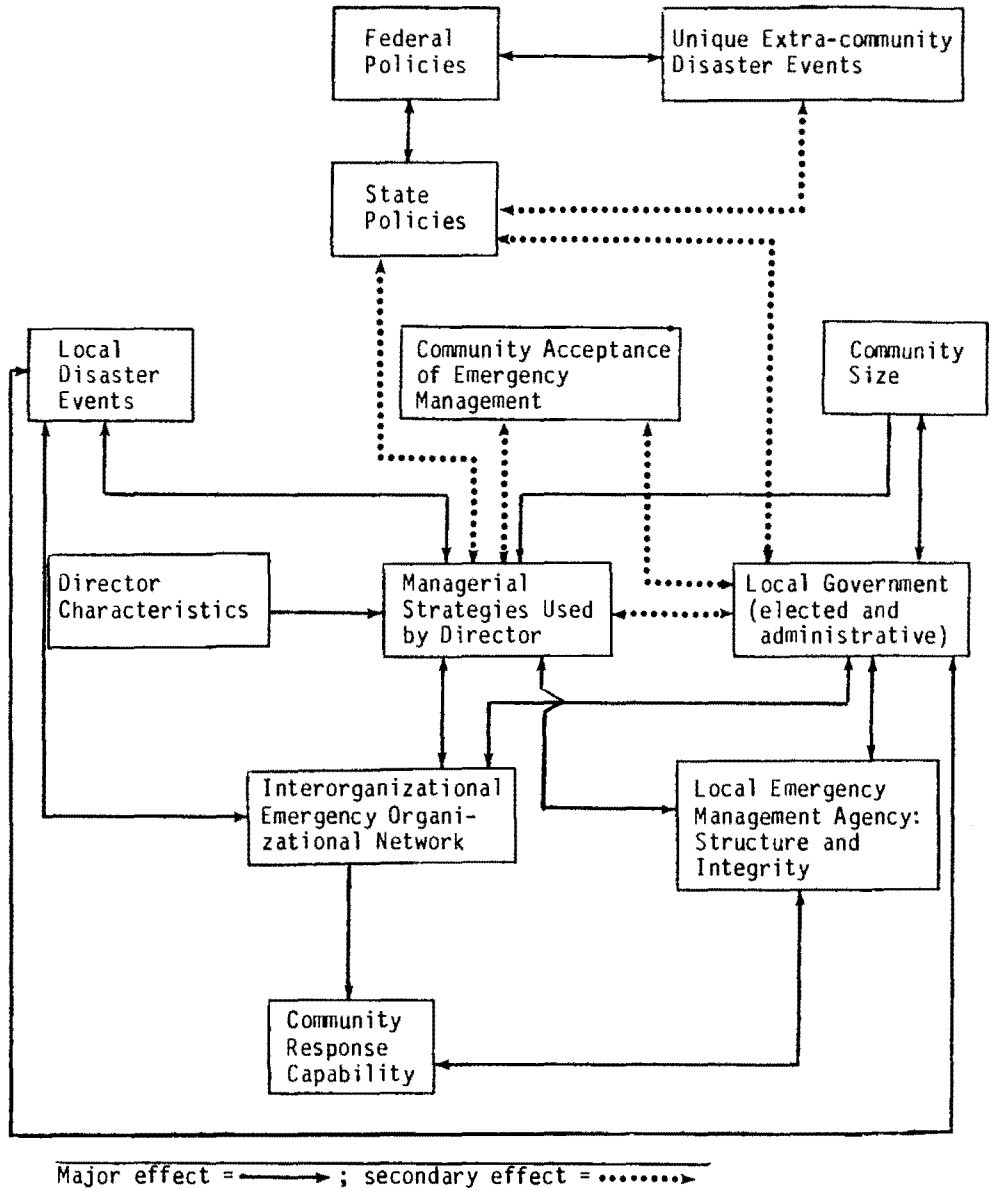
Constrained by both federal and state policies, local emergency management directors operate within either county or city bureaucracies. Tensions exist within and among each of these. The director of Los Angeles County, for example, described his efforts at trying to coordinate the activities of many county departments and also interface with the 83 separate municipalities within that county. While far less complex, other directors spoke at length of the tensions they confronted that stemmed from city-county hostilities.

The consequences of decentralization are profound, and directors of local emergency management agencies can benefit from an ability to step back from their offices, so to speak, and conceptualize the multilayers of constraint on their prime concern--community response capability.

Figure X-1 presents a preliminary model of the factors that affect community response capability. While it has not been tested empirically, and surely is incomplete, both past research and the data base created through this project attest to its validity. One of the lessons from this research for new local directors is to try to construct an

FIGURE X-1

PRELIMINARY THEORETICAL MODEL OF COMMUNITY RESPONSE CAPABILITY



alternative road map of this type. In doing so, local directors should ask these questions.

- Which of these factors seem to be less important in my community?
- How do I know? What factors are missing?
- Given this mapping of the social constraints that impact the emergency response capability of my community, where can I best focus my energies?

Advice for New Managers

All of the directors were asked the following question at the end of the interview:

> If you were in conversation with a new emergency management director--someone just starting out--what would be the two or three most important pieces of advice you would offer regarding agency maintenance?

Responses to this question and follow-up probes contained much wisdom, both in terms of general strategies and approaches to these jobs, and regarding dealings with elected officials, state DES personnel, family members, and others.

General Strategies and Approaches

None of this advice will fit every situation; however, these 12 themes provide important food for thought.

1) **Meet and greet agency heads**. New directors must recognize that time has to be spent with personnel in those agencies that comprise the disaster response system. Reflecting structural location and type of jurisdiction, the lesson was stated differently, but the general message was clear:

> Get out into the towns and find out what the problems are; ask them, don't tell them.
>
> Spend most of your time out of your office and get to know them on a personal basis.

> Immediately establish contact with agencies you will have to work with; don't wait for an incident, go to lunch with them.
>
> Get out and make contacts; don't wait for them, they won't come to you.
>
> ...take a lot of time and study the various agencies....Understand, first of all, their problems and where they're coming from, what they're attempting to do.

2) **Research your community**. New emergency management directors quickly must ascertain: 1) the major vulnerabilities in their communities, 2) existing emergency procedures, 3) basis of their authority, and 4) what other agencies need.

> Need to do a lot of research; understand the mission of the agency and what hazards are in your community.
>
> I did work for state CD and therefore knew FEMA also; so when I came here it was necessary to learn the city charter and review ordinances. So you had better read state and city laws as your first action to know where you stand.
>
> Determine the exact status that you will have in the local governmental structure; what are your responsibilities and authority.
>
> All of us as individuals are interested in our own needs, what is best for us, what we want. In some cases the people that we have to deal with could care less as to what we want. We have to relate what we're doing to what they want in such a way that we can still accomplish our goals.

3) **Ascertain the level of commitment and mission**. New directors were advised that they had better ascertain the expectations held by elected officials and/or whoever they report to regarding the level of commitment and the mission of the emergency management unit. Failure to do so could result in many false starts and continued disappointment.

> Your program will only be as good as the elected official will let it be. Get him to see this as a cheap insurance policy. Once he is convinced, others will become so.
>
> You must make peace with elected officials. Make a presentation to them and give examples of what could happen and why you need alerts and planning.

You must gain the confidence of the chief elected official; so keep him advised and clear on his role.

Realize that you will have to adapt the program to your local situation despite state and federal guidance.

4) **Establish personal credibility and commitment.** As the new kid on the block, so to speak, novice directors were urged to go slowly, be sure of facts before speaking, and increase their sense of commitment to emergency management. The director must think it important in order to sell it to others.

Don't incur antagonisms--walk before you try to run. Get a beach-head first.

Do your homework before you start telling people things.

Take your program one step at a time. Don't stab them in the back by false starts.

Don't promise what you can't deliver.

Know your subject. Be well versed and sold on the program. Realize why the job is important.

5) **Use past experience.** Everyone brings to a new job certain talents, skills, and experiences. As was discussed in Chapter V, the Phase I directors had brought a range of occupational experiences to their agencies, including state police work, building contracting, and work in a media organization. The director from Pinellas County, Florida, had extensive planning experience as a high-ranking military officer. He emphasized, however, that this past identity, like all others, must be used carefully as it may create barriers and thwart interagency relationships:

I have heard someone say, 'I'm Colonel so-and-so' while sitting in a meeting with fire and police. You watch the people look around as if to say, 'who's he think he is?' It's something you have to be very, very careful with because there's people that you're going to work with that may have an opinion of retired military officers....there is a stereotype they expect, that they're dealing with someone that's got a blockhead and he's not going to change his mind about anything.

In contrast, another director was a mechanical engineer and had held high offices in several professional engineering groups. He was linked to important industrial sectors and quickly built an extensive resource network as a way to establish program credibility.

I knew the right people before I took the job [the former mechanical engineer].

I knew the mayor from being on the Board of Directors for 'Keeping [state name] Beautiful.'

6) **Engage in consensus-building activities.** This theme was strongly emphasized by the most experienced and most successful directors interviewed. There are many tactics, of course, but daily behavior should be guided by this basic principle. One director said,

The main thing is to build a consensus of what needs to be done and involve a team approach to whatever is going to be done. There must be involvement by everybody; they all must have a piece of the action and should be involved in the whatever--the planning, the processing, the decision-making.

Others proposed similar ideas and emphasized varied aspects of this approach. Among the many examples found within the data base were the following:

Seek the advice and support of the other agency heads. Get their ideas as to what they think will work.

Get them to know each other.

Consult with and involve the people who must implement any policy.

7) **Seek to coordinate, not control.** Many of these seasoned directors thought the most important idea that they could offer had to do with the need to increase understanding of the concept of coordination. For example, the director from Pinellas County, Florida, stressed that in his state a variant of the "incident command system" developed in California was gaining popularity. On-scene commanders, typically

first responders like a fire chief, would coordinate activities at the scene. Additional city resources would be coordinated by personnel at the off-scene emergency operations center. In turn, he as county emergency management director would coordinate resources from the county, from nearby cities, or state and federal agencies:

> If it's any unincorporated areas of the county, then the on-scene commander is the district fire chief with our coordinating for him. So as I look at it, you are not only coordinating between agencies and people, but you're coordinating for and managing resources into a disaster scene for a commander.

Regardless of the system used, however, the philosophy and approach must be rooted in the assumptions of coordination, not control.

> Too many times a young person tried to justify his existence by setting the world on fire. Other departments will not accept him unless they feel they are a part of it. He must go slow, find out what they have and what they need. You need to orchestrate. That is your role, not to create resentment by trying to do their job.
>
> Don't demand anything. You have to earn respect; it can't be demanded.
>
> Don't be egotistical. You are not going to clean up the spill. You are a facilitator, not the person in charge.

8) **Increase public awareness and knowledge**. Directors of local emergency management agencies should seek to be catalysts in their communities so as to increase 1) hazard awareness, 2) support for emergency response capability, and 3) hazard mitigation programs. There are many tactics, but the most important one is to encourage other groups to participate in or totally direct these programs.

> Once you have credibility, you can take programs to the public.
>
> Do community talks.
>
> Increase involvement in public education. The more you make the office visible, the more support you will have.

9) **Establish media relationships**. One of the ways to pursue public education and to increase the emergency response capability of any community is to involve media personnel in the overall emergency management system. The mode of media involvement is inherently different from any other sector of the community. So too is the unique resource they offer. Many directors urged newcomers to think carefully about local media organizations and seek the assistance of selected personnel so as to ascertain how they could become more of a community resource rather than a problem source.

> Establish relationships with the news media and other disaster agencies.
>
> Media support. Get them on your side. Don't be negative, even on misquotes. We had done badly, but they didn't report it. Go out to them; always give them time and let them into the incident.
>
> Get media involved. You will be hurt if they are against you.
>
> You want the media on your side, but don't talk to them if you don't know the area or the issues.

10) **Continue professional development**. Emergency management is becoming professionalized--a point that will be pursued in the next section of this chapter. In part, this reflects the growing complexity of this occupation, a result of societal changes, especially recent legal decisions regarding liability, and the widespread adoption of new technologies that place larger segments of the population at risk. Needless to say, the complexity of the local emergency manager's job varies greatly by the location and size of the community.

Consider the following list of items that the Director of the Los Angeles County Disaster Services Office was working on during the three-day Phase I site visit in November, 1983: 1) follow-up on the 1971 earthquake regarding final closing out of the FDAA application; 2) a $25

million application to FEMA for storms earlier in 1983; 3) a recommendation to the Board of Supervisors regarding winter storm preparedness week and the actual sequence of motions and proclamations that culminated in that particular declaration; 4) preparation of memoranda regarding the Mexican fruit fly emergency and the policies and procedures regarding the county's activity with this hazard; 5) a state meeting and preparation of a memorandum summarizing the lessons regarding the planning for the Olympics and the exercise associated with it; 6) an appeal regarding a federal audit on funds associated with fires in 1982 (another FEMA application); 7) activity related to an extensive rain situation; 8) the emergency preparedness commission agenda as it related to the Southern California Earthquake Preparedness Project; 9) a final report to the Board of Supervisors regarding fires that occurred earlier; and 10) a series of memoranda pertaining to recommendations about the Malibu mudslide area.

It is understandable that many directors stressed the theme of continued professional development. Several, however, lamented that the training available was inadequate. A few expressed the view that what local directors really need to know was not being taught anywhere, including FEMA's National Emergency Training Center (NETC) in Emmitsburg, Maryland. The heterogeneity of these jobs deserves more attention in the design of future curricula. Regardless of shortcomings, however, many directors stressed this theme as the most important piece of advice they would offer to newcomers.

> Take any courses offered; go to NETC at Emmitsburg.
>
> Get as much training as you can from whatever source.
>
> Avail yourself to state courses including a professional development series. Acquire an academic background as soon as possible.

11) **Establish a professional network**. Many of the directors commented that the real benefit of enrolling in NETC courses was the information gained and contacts made at the pub or in other informal settings. Several of the Phase I directors stressed the importance of establishing a professional network. A couple emphasized that NETC should seek to facilitate this by providing an instant referral service to local directors. As the professionalization of emergency management evolves, this might become a responsibility of professional associations, as has occurred with other occupational groups.

> I have on many instances, picked up the phone and called directors in different parts of the United States and said, 'Look, this is what I am faced with. Have you got anything that will help me?' I'll never forget one, I came back from Emmitsburg....we laughed when they said, 'Well tell us about your latest disaster--California?' 'The fruit fly.' And we just roared. 'What in the hell is the fruit fly disaster?' Well, I came back to my county and we had the gypsy moth disaster....so I said [he telephoned classmate], 'Remember that fruit fly disaster that I laughed so hard about?' She said, 'Yeah.' 'Well I've got gypsy moth. Is there any correlation between the two?' And she said, 'I don't know, but I'll send you what we have.' And that was a big help.
>
> Get all the knowledge he can; get literature and talk to some of the experienced directors so he can get a sense of the problems he might face. It's like talking to your grandfather. We put out a directory of all names in the state so he should call some up.
>
> Get in touch with other places around the country and find out what they are doing. Don't feel like you will have to rediscover everything.
>
> Get acquainted with people in other county agencies.
>
> I would offer her what I developed as an aid. Networking--I would let her know the names of those I have found helpful.

12) **Tenacity is essential**. Many directors stressed that newcomers must realize that emergency management programs are long-term developments. Most impressive within this data base was documentation of the 16-year struggle by the Milwaukee director to obtain an adequate EOC.

Everyone expressed it differently:

My advice: Stick with it. You will have a lot of reverses and apathy. It may take 5-10 years. Be persistent. There is no other way.

You can't do everything overnight. It took us nine years to get a basic setup. It is a slow process of building credibility.

Don't get discouraged too quickly; it is a slow process.

You can't have a negative attitude. It may seem overwhelming; know how to make your breaks, take advantage of things. You have to make it happen.

Advice Regarding Specific Groups

Depending upon the interview time constraints, the directors were probed regarding their dealings with five groups: 1) elected officials, 2) state DES, 3) business community, 4) volunteer organizations, and 5) family members. The major themes contained within these responses are expressed through the following interview notes.

1) **Elected officials**.

You better do this even before you take the job. Find out what kind of commitment there is to this area. Ascertain what expectations they have, what goals they feel need to be met.

Make sure that you're well prepared. Know the subject that you're going to speak on to them about. Don't try to bluff your way through. If you don't know, tell them you don't know.

You've got to make them aware of the problems, but you've also got to realize that they control the purse strings. You don't go in with unrealistic demands; rather go in with specific things and then be able to justify them.

Don't stress something to do with crisis relocation and nuclear power plants if there's something that you can relate to that they see as a problem--a hurricane, a tornado, a flood, whatever it happens to be in your area. Relate everything to how this is going to help in handling this problem that you already have a consensus on.

Keep them informed. Be realistic in your budget; don't pad. When you ask for out of reach things, be sure to explain why. You have got to recognize that they are who you work for.

Realize that you have to be a seller as there is variation among them as to knowledge. Any program is doomed unless you have their support.

Understand the politics of the situation from state level down and realize where loyalties lie. Get support of opposing factions; you must work with all parties.

That's a tight rope. You will get guidance from the state office and must be tactful in communicating with elected officials. Must feel your way. The two may not be in total agreement.

Be professional. Get to know them. Sell yourself by performance. Don't be defensive. Try to deliver a service on a daily basis.

2) **State DES**.

I try and keep the state advised of everything that we're doing. Now there's times I get mad. There's no way I would not tell the state what I think. But in turn, I try and treat the state the same way I would want to be treated. You know that's an old cliche, but I think it's true with the cities. I get all upset when the cities don't tell me that they just had a propane incident or something. Well the state gets all upset when I don't tell them that we just had a plane crash. So I try and make my relationship with the state the same type of relationship that I want with my cities.

Don't let the EMA factor, the money, be your control for how you deal with the state. Remember that you still work for the city.

They are there to help so ask them. Realize they can help with paperwork, but not your citizens or their interests.

We are creatures of the state, but don't depend too much on the capabilities of the state. In a wide disaster they will be thin so you must realize the need for local capability. You must maintain rapport but still help them realize when their policies are inconsistent with the local view.

Get to know them. They can give you good guidance. Respect what they say, but be aware that the local view is different and you need to respect the local view.

Milk them dry--they have a lot to offer. You have to grab it. Get them to help you with getting model plans and help on exercise design.

Proceed cautiously; don't let them overburden you. Don't let them browbeat you. They have no teeth, but they bark loudly. They only pass through funds. Put the local program first.

3) **Business community.**

I look for the easiest way. Is it through a Chamber? Is it through a council? Or do you just start off with those people that you find out in your initial discussions with other people? You have to kind of feel your way and then you start moving in that direction to involve them in the planning process because of the resources they have. They've got to be part of your program and should be involved as part of the team.

Don't walk into a plant and be critical. No matter what happens tell people you are here to help and then back off. You can kill the thing by being too pushy.

Realize that they are profit motivated. So push the financial gains they will net if they cooperate. Appeal to their prime motivation. For example, help them understand how your program could help with tourists who might be discouraged to come to an unsafe area.

First garner their interest. Emergency management is everyone's business. They will be helped in making money if we can return to normal as quickly as possible. It is in their best interest. They will come forward when needed, but let's get organized now. Help them see the payoff.

4) **Volunteer organizations.**

You need them. You can't work without them, but they are hard to work with and you never know how many will show up.

Give them all the support you can. Thank them all you can. Above all, don't say 'You have to.'

They are self-motivated, but they need recognition. So arrange for certificates and keep them active. Ask for their input and make them feel a part of the organization.

They are a lot of hard work--a lot of hours. You have got to get used to answering the phone at home a lot.

They have different goals and motives than money. You have to understand this; listen to them.

This is the toughest part. The main thing to remember is that they are volunteers. You can't give them orders and you must make them feel important. To find one, look for one who has already volunteered.

Will take a lot of time, but they will make you or break you. Realize that some will have strong personalities, that's the nature of volunteers. But you have got to figure out ways to work with them.

It's going to be a headache. You must make them adhere to standards. You will have some show up who will want to participate so give them the requirements and try to help them get organized. Don't let them run over you.

5) **Family members.**

I would have to go back to before I accepted this position. They need to make their spouse, particularly, and their children understand that it's not a 9 to 5 job. It takes a lot of personal commitment, a lot of personal dedication. It is a very stressful position.

It depends on the individual. Your family has to be aware of what your job is; they have to know that you may have to go. It takes a unique family to put up with it. A lot of people don't know when to leave the job and go home. You must let others handle some of the things. You can't do it all or stay all of the time and you shouldn't try to.

I came from a job that had a greater impact as I was a police officer. Thus, I felt the conditions were better except that I take this job home with me more. I worry more and find myself thinking about things constantly. I am more aware of what could happen. So I am constantly asking how we would deal with things.

It's not an easy position, at least in my situation where I'm on 24 hour call. But there are benefits as you are not tied to 9-5. I have a lot of flexibility. I can go to the kids' activities more than most workers.

You've got to sit down and visit with your wife about it. You may want to get her involved. You are going to get phone calls; you will get meetings. Be sure she is on your side or else stay out of it.

The Future of Emergency Management*

The future of emergency management within any community or nation is not predetermined, yet certain trends have shaped the past and constrain the future. While it was not the objective of this research project to investigate this issue, limited insight was gained into this complex web of constraint. Certainly, this matter merits future study. Few local emergency managers--or academics--have tried to conceptualize

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*An earlier version of these ideas was presented in Drabek, 1985a.

the various forms of constraint that have shaped and structured the disaster response systems existent today. While quite simplified and totally speculative, the following insights were gained from the interviews conducted through this project.

Four Sources of Constraint

The structure of emergency management within the United States reflects four somewhat interdependent sources of constraint: 1) disaster events, 2) interest group mobilization, 3) policy adjustments, and 4) developmental trends. The hypothesized relationships among these appear in Figure X-2.

1) **Disaster events**. The incident at Three Mile Island (March, 1979), even more so than the picturesque but deadly eruption of Mount St. Helens or the poisonous contamination at Love Canal, skewed the longer-term developmental path of emergency management. Fifteen years from now, managers will probably have some new tools and resources because of novel events.

The time and place of such future events remains unknown, of course, but we get some ideas regarding tomorrow's headlines from seasoned practitioners like Roy Popkin (1985). He noted that future droughts may intensify the rate of desertification through the southwest; elsewhere, salt water may infiltrate city water supplies as the greenhouse effect becomes intensified. If the recent past is a valid predictor, however, greater impacts will result from events like another Galveston hurricane, a giant earthquake in California, or an even worse one in the New Madrid area.

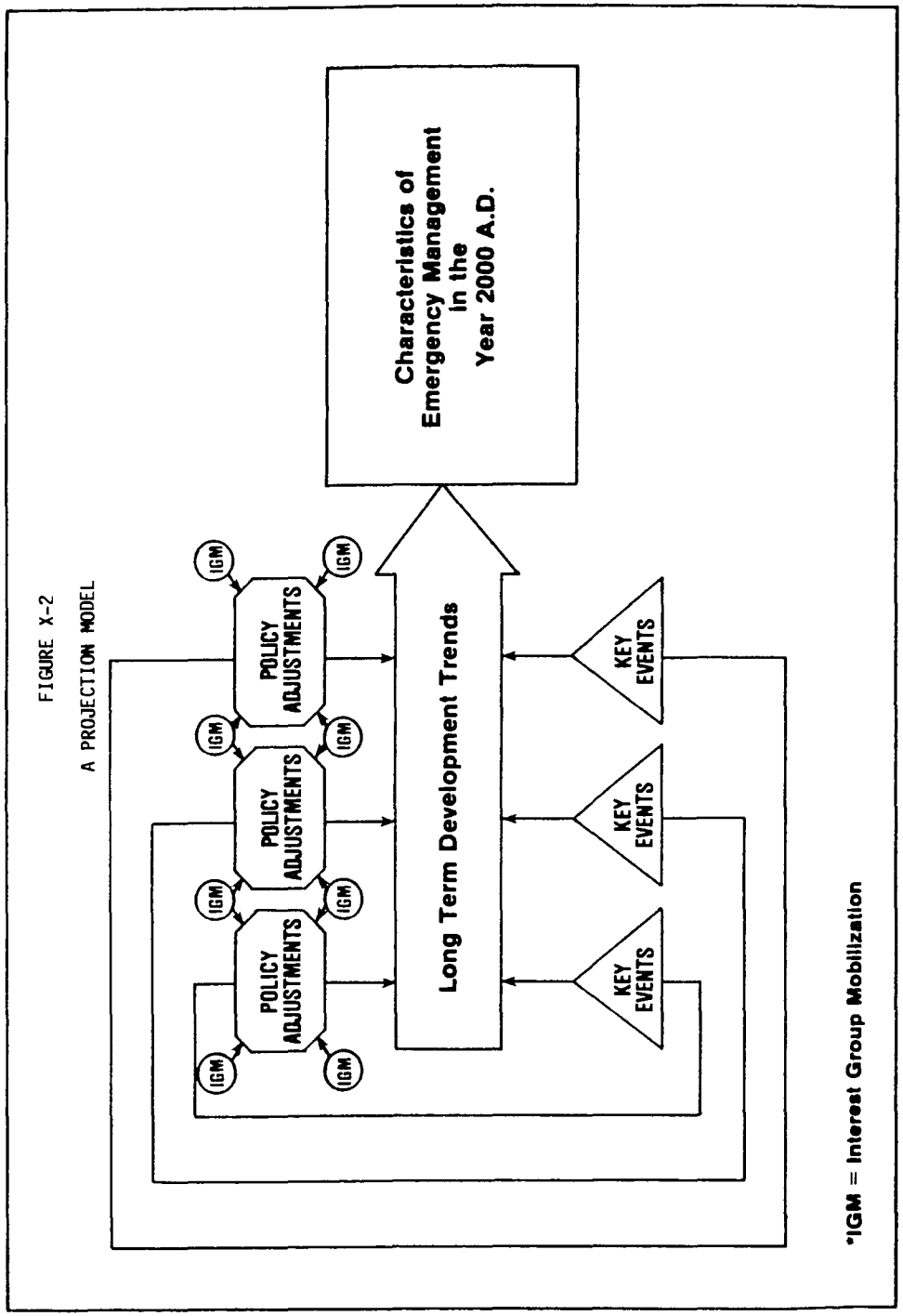

FIGURE X-2
A PROJECTION MODEL

2) **Interest group mobilization**. Future disasters, like those of the past, will be used by various interest groups to promote public acceptance of new regulations and other mitigative actions. They will serve to legitimate proposals for new or expanded programs for preparedness, response, and recovery. These efforts will be constrained by those organizational executives who perceive them as being a threat to their economic well-being. These competing groups, reflecting their separate agendas and economic bases, seek to push policy adjustments in quite different directions. The stakes of each differ, as do their respective views regarding desired public policies for federal, state and local governments (Drabek, 1984).

3) **Policy adjustments**. Partially in response to parallel events of the past--recall the 1964 Alaskan earthquake and the ravages of Hurricanes Camille and Agnes, for example--public policies have been adjusted. Fifteen years ago the National Flood Insurance Program had just been unveiled. Hilary Whittaker's project had yet to transform the concept of dual use into its logical extension--comprehensive emergency management (National Governors' Association, 1979). The extent and pace of federal level policy adjustments was summarized in Chapter II. Highlighted rather dramatically was the ever-fluid federal organization. This fluidity is buffered by state DES offices, but is experienced at local levels by a continuing stream of new paper forms, acronyms, and priority statements. Fluidity minimizes implementation and undermines credibility.

Forthcoming resolutions will do much to structure the environment of future emergency managers. First, what will become of FEMA? Will the changes of the recent past give way to the older pattern of increased fragmentation? Second, what hidden impacts will be produced if

funding formulae increasingly reflect greater state and local contributions?

4) **Developmental trends**. In contrast to these three sources of constraint are a series of longer-term developmental trends. As highlighted in Figure X-2, these trends will continue on into the next century. The **rate** of development, not their continuity, will be affected by the other three sources of constraint. Emergency managers in the year 2000 will exhibit the following qualities:

- **Increased professionalism**--including formalized credentials and training.
- **Clarified organizational domain**--given the decentralized structure of American society, comprehensive emergency management, regardless of the implementation nomenclature, requires a coordination function. This function will become accepted as the domain of the emergency manager.
- **Variability in structural location**--reflecting local community histories, personalities, and resources, emergency managers will be nested within a limited number of alternative niches within local government. The pattern of drift, however, will be toward the establishment of an independent agency that reports directly to the chief executive officer of the respective local government entity.
- **Expanded use of computer-based information and decision support systems**--more so than any other technological innovation, microcomputers, including networking systems, will alter the capabilities of future emergency managers.
- **Improved public image**--future emergency managers will enjoy increased status within the totality of emergency relevant organizations and heightened public awareness of their distinctive role.

The seeds of these long-term outcomes are present today, although the degree of variability among communities is enormous. That probably will remain. The projection is one of global movement across these five characteristics; however, there will be slight narrowing in the overall

variability found today. The degree of movement, both the overall pattern and the degree of variability among local units, will depend on the nature of future key events, both actual and threatened, and major policy adjustments that will emerge as a result of the mobilization efforts of the varied interest groups with a stake in the future of emergency management.

This analytic framework clarifies why it is that so many well meaning people can have such fundamental differences in view regarding an action agenda. Both the substance of the agenda, and relative priorities within it, will vary greatly according to the assumptions made regarding both the future domain of the emergency manager and the overall role of government as a constraint to private sector decision making.

An Action Agenda

This analysis suggests that any action agenda inherently reflects one's personal political philosophy--although some fail to recognize this implication in their proposals or actions. Reflective of the insights shared during the hours of interviewing this small sample of 62 local directors, and of my own political convictions, the following items are proposed as an action agenda for the emergency management community.

1) **Enhance professionalism**. Like other occupations that have been professionalized during the past century, emergency managers of the future must articulate a set of specialized skills and knowledge. Career paths will be broadened; no longer is the military the primary access route. New and additional training programs must be initiated, both by specialized entrepreneurs and traditional academic institutions. All

such ventures, however, must reflect the political reality of the primary hiring agencies--state and local governments. Efforts to standardize a national curricula must come from the professional associations, not agencies of government.

The emergence of a nationally recognized profession requires strong associations that have a capacity to engage in the policy debates and negotiations that will produce future policy adjustments. Given the concurrent patterns of corporate concentration and reductions in programs of the federal government, this professional ethos becomes more critical than ever. For without it, fragmented governmental forces are left to battle with ever stronger forces. Emergency management professional groups must provide a balancing force in the society.

2) **Increase domain consensus**. The distinctive coordinating function of the local emergency manager must be identified more clearly and articulated aggressively. While it remains the task of each manager to negotiate this role within the respective turf definitions held by other local service agency heads, the national effort must be directed toward gaining a broad base of consensus. The consensus must legitimate both the coordinating function and its assignment to the emergency manager.

3) **Acceptance of structural variation**. The nesting of the coordination function and, in turn, the structural placement of the local emergency management agency, must be viewed as variable. Structural standardization should not be equated with quality. Regional, state, local community differences preclude a singular design. Effectiveness in performance, legitimacy, and public acceptance are the desired outcomes, not structural standardization. Indeed, continued variation in structural nesting should be viewed as a sign of strength within our decentralized intergovernmental system.

4) **Expanded use of computer technologies**. The road toward increased professionalism is long and varied. If a single technological item were to be identified that could propel local managers forward in their struggle it is the microcomputer. Obviously, much more is required than simply dropping off a tin box at the door step of each local agency office. Accelerated training programs in computer uses and applications for communities of comparable size and prime hazard threat are needed too. The day is not far away when all local managers will have the reservoirs of knowledge now hidden away in academic libraries at their fingertips through national computer networks that will form the electronic libraries of the future.

5) **Improve public acceptance**. While there is a parallel functional requirement within the federal government, the real developmental task resides at the state and local levels. Through a variety of techniques, all segments of the emergency management community must seek to expand the acceptance and understanding of the public. Within the mix of emergency service agencies, special interest groups, and respective private sector concerns, emergency management remains a hazy and ill-defined job title. By the year 2000, this public image must be transformed into a viable professional status.

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APPENDIX

THE STUDY METHODS

The strategies used by local emergency management agency directors had not been explored in depth previously. Given this relative absence of information and conceptual development, a series of comparative case studies were the appropriate method (see Campbell, 1975; Yin, 1984). Since I wanted to ascertain potential differences and similarities in strategies used by directors in communities of differing sizes, a purposive sample was needed (Drabek **et al.**, 1982).

To insure that any patterns discovered were not idiosyncratic to the small number of field sites that could be studied given budget constraints, a larger pool of directors was selected randomly. Through telephone interviews and mailed questionnaires, limited aspects of this concept and the variables related to it could be explored further.

Three aspects of the study methods are summarized: 1) advisory committee; 2) field study procedures (Phase I); and 3) telephone survey procedures (Phase II). As indicated in Chapter I, and as will be discussed below in more detail, the procedures implemented yielded unusually high levels of cooperation. Thus, this more detailed summary was prepared in hopes that it will be a useful source of guidance for future researchers. Of course, as with all such statements of method, it also identifies the many sources of constraint and limitation reflected in the data set and the conclusions derived from it.

Project Advisory Committee

1) Advisory committees can perform many important functions for researchers. Yin and Moore (1985) have documented that research utilization depends heavily on the nature and frequency of communications between knowledge producers and knowledge users. Advisory committees can be critical elements in this function.

2) As I discovered in other projects (Drabek **et al.**, 1981; Drabek, Mushkatel and Kilijanek, 1983), it is essential to give careful thought at the outset as to the types of expertise needed. In this project the following needs were identified: (a) local emergency management director, (b) local director who was an officer in one of the professional associations supported by local directors, (c) Federal Emergency Management Agency (FEMA) staff member in headquarters office, (d) FEMA Regional Office staff member, (e) FEMA training and education staff member, (f) local government specialist, preferably an experienced city or county administrator who had an interest in emergency management, (g) state director of disaster emergency services, (h) academic disaster researcher, (i) private voluntary disaster relief agency representative, and (j) academic organizational specialist, preferably with an interest in disaster studies. The ten experts who filled these slots are identified in the Acknowledgements. They performed their assignments with skill, commitment, and civility for which I am grateful.

3) As noted in Chapter I, these individuals performed a variety of functions all of which enhanced the quality of data obtained. They provided direct liasion to many of the directors selected for the field studies or others contacted during the field site selection process. Often, however, their liasion assistance was more subtle. Frequently, persons selected for contact agency interviews (described below) evidenced name recognition. For example, some commented that they had read something written by one of the academics or had attended a conference wherein one of the others had made a presentation. The geographical diversity, like the varied forms of expertise they represented, maximized this possibility since the field work took place throughout the United States.

4) Among the other forms of assistance members of the committee provided were: (a) review of the conceptual and theoretical assumptions that guided the project; (b) sharpening the analytic framework; (c) review of a flyer that summarized the project objectives and methods; (d) review of all data collection instruments; (e) critique and helpful review of alternative approaches to the construction of a multi-stage random sample for Phase II (telephone survey); (f) identification of local directors who were considered for inclusion in Phase I; (g) review of a draft of this book; (h) review of a flyer that summarized the major project findings; and (i) assistance with dissemination of project results.

Field Study Procedures (Phase I)

Discussion of the Phase I field procedures is divided into three parts: 1) the nomination process, 2) specific field procedures, and 3) the results.

1) The Nomination Process

A. The project advisory committee and selected researchers were asked to identify local emergency management agency directors who had held their jobs for at least two years and had been reasonably "successful."

B. This request was introduced with a statement of this type. "I am trying to construct a purposive sample that will reflect urban-rural variation. But I want to interview people who are experienced and who have been reasonably successful at improving the emergency response capability of their community."

C. As names were received they were classified according to: geographic location (so as to include at least one from each FEMA region); size of constituency served; and sponsorship base (city only, county only, or multijurisdictional, including integrated city and county or county plus several municipalities).

D. Typically, several candidates were available for each of the slots within the sampling matrix. Hence, the final criterion

of travel cost was applied, so as to maximize the number of cases.

E. As interviews were completed at various locations, the remaining degrees of freedom were reduced, given the variation desired among the sites. For example, one unfilled slot became defined as a local director in a small town within New York state. Personnel in the FEMA Region Office provided liaison to a state official who, in turn, identified a local director.

F. The final sample is displayed in Table I-1 which illustrates how the multiple criteria were met. Only one director contacted declined cooperation, but this was due to a logistical constraint. For budgetary reasons, constraints stemming from my university responsibilities (classroom teaching), two distant sites required visitation during a single trip. Upon contacting this particular director, I was told of an elaborate exercise planned for the week preceeding the dates selected for the site visit. He offered to participate if an alternative date was available, however. Since the interview time-window was fixed with the other director who was to be interviewed on the same trip, an alternative candidate was selected. This high degree of cooperation undoubtedly reflected the topic of study, but I believe it also was nurtured by the field procedures that were used.

2) Field Procedures

A. After a candidate was selected in accordance with the above criteria, members of the Advisory Committee were consulted. Permission to use their name for introduction purposes was requested. Telephone contact was made and the project was described briefly. I stressed that I was gathering material for a book that I hoped would be useful to **new** local directors. And I indicated a personal belief--"after observing responses to several large-scale disasters, I am convinced that a good deal of wisdom resides with people like you. I want to try and tap into this resource and put it into a form that will allow it to be shared."

B. All directors contacted responded positively to this approach and all expressed a willingness to participate in the study (the single exception was noted above). At this point in the conversation, I continued by saying something like the following (guided by notes):

"I am pleased to learn of your interest. But before you agree to participate in the study I want to explain the two requirements. First, I will want to interview you for some time--perhaps as much as 5-6 hours. So I'll have to ask you to block out most of a whole day so we can chat. The way I have been doing this is to start first thing in the morning and to then take an early lunch break--my treat. Then we can finish up the interview.

The second requirement is that I will need your help in arranging seven short interviews with representatives from some emergency organizations in your community. These will take about 45 minutes each. So as to cross reference perceptions regarding the program-building strategies you have been using and to better document the pattern of interagency relationships there, I am interviewing one person in seven different types of local organizations--law enforcement, fire, public works, Red Cross, and the like. What I would want you to do is schedule these interviews for me on the two days following my interview with you. I realize that this is an imposition and will take some time on your part, but I hope you are still willing to participate. I can assure you that I will not request anything else, but I like to lay out all the requirements right at the start."

C. All directors indicated a willingness to participate. I sent a follow-up letter that confirmed the dates and specified the seven agency types. Enclosed were ten copies of a one page printed flyer that summarized the project objectives and methods. It also listed the Advisory Committee members and their respective agencies. I also enclosed a reprint on one of my recent publications ("Shall we Leave? A Study on Family Reactions When Disaster Strikes." Emergency Management Review 1 (Fall), pp. 25-29, 1983).

D. Interviews with the directors were audio recorded and later transcribed directly onto a computer disk to facilitate analysis. Additional data were gathered through a questionnaire, i.e., selected interagency relationship qualities, agency characteristics, opinions regarding emergency management, and personal background. The questionnaires were placed into a self-addressed return mailer so that respondents only had to staple it closed prior to mailing.

E. Notes were taken during each interview with the contact agency representative. Immediately afterwards a summary of their responses to each question was dictated. These too were entered directly onto a computer disk. Questionnaires were used to collect a limited amount of data regarding interagency qualities, agency characteristics, and personal background features. As with the director questionnaires, these too were placed into self-addressed return folders. At several sites, directors arranged for a few additional interviews so as "to round out" my visit. These were completed as required, but questionnaires were not distributed.

F. Thank-you letters were sent to all interviewed shortly afterwards and again when their questionnaire was received. In four instances, a telephone interview was conducted because the questionnaire was not returned or was lost in the mail.

3) Results

These procedures proved to be very effective with this type of manager. The following results were obtained:

A. Emergency management directors: 12 interviewed, 12 questionnaires returned - 100% response rate.

B. Contact agency personnel: 79 interviewed, 67 questionnaires returned. Four telephone interviews were conducted due to non-return of questionnaire after two follow-ups by letter. Questionnaires were left with only 75 of the interviewees, however. These four cases reflected my perception of interagency conflict or a minimal level of cooperation. Thus, the response rate was 95% (71 questionnaires returned from 75 interviewees who received them). In addition, five persons were interviewed to supplement the views available from the seven key contact agencies. Across the 12 communities, interagency conflict or organizational policy requirements precluded interviews with five representatives in the agency type requested.

Telephone Survey Procedures (Phase II)

Discussion of the Phase II procedures is divided into three parts: 1) construction of the multi-stage random sample, 2) telephone interview procedures, and 3) the results.

1) Construction of the Multi-Stage Random Sample

A. Given budget constraints, approximately 50 local directors were to be selected for participation in Phase II. Primary criteria for site selection were: urban-rural mix; sponsorship base (city vs. county); and geographic location. A multi-stage, random selection process was used.

It should be emphasized that we wanted to insure diversity within the sites, **not** a process that would permit generalization to the entire universe of local government emergency management agencies. Such a sample would have required resources far in excess of the limited budget available (see Hoetmer, 1983a and 1983b). Given the problem at hand, and the state of theory development, this **purposive sample** was appropriate for our purposes (see Drabek **et al.**, 1982).

B. We decided to identify five directors in each of the ten FEMA regions so as to include one in each of the community population categories used in Phase I: 1) very large (1 million plus); 2) large (999,999-500,000); 3) medium (499,999-100,000); 4) small (99,999-50,000) and 5) rural (49,999 or less). 1980 census data were used.

C. Procedurally, the following steps were followed:

1) All states in each region were listed. The cities and counties with the largest populations were identified so as to determine the range of choice for category 1 (very large; 1 million plus). In two regions (Numbers 7 and 8) there were no communities of this size, hence, the

largest jurisdictions in these regions were selected (Salt Lake County and St. Louis County). When more than one jurisdiction was available, selection was random.

2) After category 1 was filled, that state was eliminated for further consideration. All locations available for category 2 were listed and the above procedures were followed. Sites were selected for category 3 (a population range of 499,999-100,000) in the same way.

3) In the last two categories, the number of relevant jurisdictions were counted and a digit was selected randomly. The community was identified by counting from an alphabetical listing. Either a city or a county was selected depending upon the choices obtained through the first three categories so as to insure variation in sponsorship (city or county).

4) Two sites had been used for pre-testing the Phase II instruments (Plattsburg, New York and Larimer County, Colorado). Since the only change made was to eliminate several items so as to shorten the telephone interview and the questionnaire, these were substituted for the sites selected through the above procedures. Both directors had been nominated through the Phase I process. Also, both of the local directors who served on the project Advisory Committee assisted through pre-testing the Phase II instruments. One of the jurisdictions actually appeared in the random selection process; both were included in the final data set.

D. Each locality was contacted by telephone and the name of the local emergency manager was obtained. In some cases a municipality selected was discovered to participate solely in a county organization which was then used. A mailing list provided by the Executive Office of the National Coordinating Council for Emergency Management (NCCEM) supplied some names for these initial contacts, but all were confirmed by telephone prior to sending the introductory letter. This insured that the addressee was the **current** local emergency management director.

2) Telephone Interview Procedures

A. The telephone interviewing process was structured as follows:

1) Upon confirmation of a small batch of local directors, (step D above) typically a dozen, a letter of introduction was mailed.

2) It was accompanied by a printed flyer which summarized the project objectives, procedures and listed the Advisory Committee members.

3) A reprint of one of my recent publications was included; "Shall We Leave? A Study of Family Reactions When Dis-

aster Strikes." Emergency Management Review 1 (Fall, 1983), pp. 25-29.

4) Also, a questionnaire was enclosed. Instructions specified that it was to be completed **after** the telephone interview. It was stapled into a printed folder that served as a return envelope, with prepaid postage.

B. The introductory letter indicated that I would be telephoning within a few weeks to answer any questions and to schedule an interview time. Other elements noted in this letter that may have enhanced cooperation were:

1) an indication that the interview data were to serve as the basis for a book for local emergency management directors.

2) establishment of my professional credibility (reference to a 20 year research history) and my personal respect for local directors ("I am convinced that a great deal of wisdom regarding emergency management exists with directors like you.")

3) a pledge that all who participated in the interviews would receive a complimentary copy of the book. This had been done on two previous projects and appears to evoke a positive response.

4) the specification of the locations and the names of the directors who participated in Phase I.

5) indication that their community had been selected through a random process and that the study was designed to solicit views from directors throughout the nation, in communities of varying sizes.

6) the specification of what I expected from them (i.e., a telephone interview of 45 minutes and completion of the questionnaire) and a pledge that no individual responses would be identified as such.

C. An inventory procedure was designed so that the following actions were noted by date for each director contacted: 1) introductory letter mailed; 2) initial contact call; 3) time at which interview was scheduled; 4) date interview was completed; 5) questionnaire returned; 6) follow-up letter sent, if questionnaire was not returned in 3 weeks; 7) thank-you letter upon receipt of questionnaire.

3) Results

These procedures produced the following results:

A. Of the 50 initial contacts, only two directors refused to participate. Both directors had started their jobs within a few

weeks of my contact and did not believe they had enough background to justify participation in the study. Both indicated that they could benefit from the project results and expressed interest in obtaining a copy of the book.

B. To complete the final pool of sites, two additional directors were contacted.

C. 50 directors were interviewed, and 42 returned their questionnaire immediately or upon follow-up. Seven were interviewed a second time on the telephone with a more restricted set of items from the questionnaire. Many claimed that the questionnaire had been mailed and must have been lost; others indicated apologies and agreed to the follow-up telephone interview. Only one director of the 50 interviewed did not complete the questionnaire.

D. Total response rates: 1) 52 contacts yielded 50 interviews (96%); 2) 50 questionnaires mailed yielded 49 returns, including telephone follow-up (98%).

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