

Sharing Emergency Planning Assumptions Management Views Differ

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Effective disaster management requires advanced planning. News media centers, public information hot-lines, and on-site volunteer procedures must be established in anticipation of large scale emergencies.

In the following article, Kartez reviews the disaster planning programs and policies of 250 public agencies associated with disaster-prone communities. The study describes managerial perspectives of disaster planning policy. The article is a guide for planners concerned with the complexities of community crisis mitigation.

A frequent finding of research on disasters is the need for local government to anticipate how the community reacts to a large scale crisis. Community disaster plans do not always acknowledge that the independent actions which citizens, news media and other agencies take are factors that management must anticipate. For example, at a recent airline crash in Louisiana that killed 154 people and demolished a neighborhood, fire-fighters commanding the scene were overwhelmed by spectators and would-be helpers whose presence was triggered by inaccurate media reports. This problem of "convergence behavior" has been observed in disasters for almost three decades, but public managers are often caught by surprise. Perry (1979) has called pre-disaster use of this kind of insight "research-based community disaster planning." Through this approach, local officials can "work with people's known reaction patterns" and avoid "making administratively devised plans that potentially create more problems than they solve" (1979: 446).

Implementation Problems

Transfer of this planning philosophy to local practice has not been as rapid as many would like. After a nationwide International City Management Association analysis of local planning in 1982, the study's director complained that:

What is puzzling is, that after years of research on organizational behavior in disasters, local

government continues to be surprised when the standard operating procedures in their lengthy, detailed response plans turn out to be irrelevant in the disaster (Hoetmer 1984: 1).

If researchers' suggestions for local government had little real utility in the event, the above complaint would not be very important. However, such is not the case. Imagine, for example, you had been a key administrator in Wichita Falls, Texas, during its devastating 1979 tornado.¹ In addition to wrestling with obvious demands for treating casualties, restoring services and so on, you would have found yourself making totally unplanned decisions to meet needs like these:

- Appointing the City Attorney to organize a news media information center;
- Assigning firefighters to hand-deliver a "disaster newsletter" to neighborhoods in the days before phones were restored;
- Running a city-staffed information "hot-line" for citizen needs when phones were restored; and
- Designating a single staff member to cope with the continuous appearance of unofficial volunteer help and fit them into the overall response.

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Volunteers prepare sandbags to hold back the flood waters

Ravell Call

These unplanned strategies of community organization are very similar to those suggested by research on disaster planning needs, and other studies of actual disaster response have made similar findings (Drabek et al. 1981; Kartez 1984). None of these actions were planned, and often on-the-spot adaptive planning is difficult if not impossible. Clearly, research suggestions do have potential utility to local government. To not respond to these demands of community behavior results in emergency decision centers jammed with newsmen (Coalinga in 1983); confused citizens trying to sort "news" and rumor from vital instructions (Mt. St. Helens in 1980); and volunteers duplicating or interfering with the efforts of public agencies (Louisiana air crash). At the very least, needed resources can be overlooked because

planning did not anticipate the sheer numbers of people that are involved in a community-wide crisis.

Management Opinion Survey

The principal question guiding our research asks: Do top managers in local fire, police, public works and executive departments consider it important and feasible to anticipate and plan for these aspects of disaster events? Despite the several decades of research recommendations and case studies, there is surprisingly little knowledge of how the potential users of research view this question. To explore it, we asked the heads of emergency-relevant departments in 80 California, Washington and Utah localities to evaluate the effectiveness of three

adaptive planning

questioning its
importance

"research-based" strategies for meeting community demands.

These examples have been "adaptively" planned in the heat of emergencies (Kartez 1982) as well as offered in the research literature. They included: 1) anticipating the predictable appearance of unofficial citizen helpers with an "Untrained Volunteer Plan", 2) preparing for the onslaught of large numbers of radio and TV personnel with a "Media Information Center" plan, and: 3) maintaining the capability to meet public information needs through, for ex-

Table 1
Preparedness Strategies Evaluated

OBSERVED PROBLEMS:

Convergence of Helpers: Citizens flock to disaster, both as sources of help and as spectators who obstruct lifesaving operations.

Media Overload: The news media is the chief means of rapid communication with the public, but often overwhelming numbers of outside newspeople cause inaccuracies and physically obstruct operations.

Mass Public Information: Citizens can overwhelm agencies with demands for instructions in the critical first days of response, jamming switchboards and distracting key agencies. However, the public needs a source of confirmatory information.

Disaster Resources: Needs for physical resources often outstrip local capability. Public agencies have to make simultaneous decisions on committing public funds as opportunities for help appear, with no time for observing routine business practices.

SUGGESTED PLANNING STRATEGY:

Untrained Volunteer Plan: Pre-designate one public agency to be responsible for expecting these citizen actions and to actively give direction to volunteerism.

Media Information Center: Create incentives for the media to use accurate information. Plan for a central location where media will be given frequent face-to-face information from credible officials.

Disaster Information Hotline: Arrange in advance for the capability to operate and staff phone bank staffed by personnel who will give citizens vital instructions on protective actions, squelch rumors and ease pressures on other agencies to answer citizen demands for information.

Emergency Resource Rules: Speed procurement of special resources or personnel by prespecifying streamlined authorization procedures for all departments that may have emergency resource needs.

ample, a "Phone Hotline" plan. A fourth strategy of a strictly internal, administrative nature was also included for the purpose of comparing opinions: adopting "Emergency Resource Rules"—that is, authorizing local agencies in advance to bend normal administrative procedures for procuring needed resources in a disaster. These four examples are further described in Table 1.

We asked managers in three earthquake-prone metropolitan regions—the San Francisco Bay area, Washington's Puget Sound basin, and Utah's Salt Lake City area—to participate in this study. Cities and counties in these areas were considered to be

generally quite familiar with disaster planning needs. The expectation was that this sample would allow for an informed evaluation of the following questions: 1) Is there a perceived need to plan for the "social" demands of disaster management? 2) Are research-based strategies difficult to adopt and what are their potential constraints? 3) Do factors like experience with disasters, involvement in the planning process or jurisdiction size (a proxy for resources) make any difference?

A total of 250 out of 300 managers replied to the survey. Officials from public works (23%), fire (22%), municipal police (18%), emergency services (12%), sheriffs (6%) and executive departments (8%) participated. An attempt was made to gain the response of a cross-section of key managerial disciplines in each of the 80 jurisdictions. Over three-quarters of the participants represented the top management positions of their respective local agencies.

The following discussion analyzes how public managers view the need to plan, the feasibility of and obstacles to the suggested planning actions, the influence of contextual factors like experience and planning involvement, and the implications for local disaster planning practice. The results are also of interest to us as planners because of the light it sheds on some of the difficulties of planning for unfamiliar and remote community crises.

It should be kept in mind, though, that disaster response planning is quite unlike community land use or development planning. The process revolves around highly specialized line agencies, not community interest groups and policy analysts. Decisions on what to plan for are essentially administrative in nature, not legislative. Fire, public health, police and emergency medical agencies respond to well-defined emergencies every day. However, in a disaster, these same agencies often find their roles expanded in unexpected ways because of the sudden involvement of virtually every sector of the community: individual citizens, voluntary groups, the news media and so on.

The Need to Plan

How significant are some typical disaster response demands in the eyes of public managers? A majority viewed controlling crowds, giving citizens instructions and finding outside resources as somewhat extreme problems (Table 2). Organizing volunteers and meeting the news media's demands for information were viewed as less troublesome. Bay Area

planning for
social demands

administrative decisions

managers facing long term earthquake risks, however, view most of these potential problems as more significant than do their Washington State counterparts. Utah officials viewed only crowd control as an extreme problem, in the wake of their massive 1983 flood fighting experience which involved thousands of citizen volunteers.

Table 2
Managerial Views of Response Demands

PROBLEM AREA	Little or No Problem	Some Problems	Great Problems
Controlling Crowds			
Washington ^a	18%	53%	29%
California	13%	52%	35%
Utah	28%	36%	36%
Organizing Volunteers			
Washington	35%	40%	25%
California	22%	52%	26%
Utah	71%	29%	0%
Giving Citizens Instructions			
Washington	27%	40%	33%
California	14%	42%	44%
Utah	64%	29%	7%
Media Info. Demands			
Washington	38%	36%	16%
California	32%	41%	27%
Utah	78%	22%	0%
Finding Resources			
Washington	25%	48%	27%
California	13%	43%	44%
Utah	57%	36%	7%

^aWashington N = 98
California N = 137
Utah N = 14

Do managers see a need to plan in advance to manage these problems? Table 3 shows the answer is a qualified yes. A majority of the surveyed managers agreed that meeting the demands of outside actors (volunteers, the media and citizen needs for public information) will be quite difficult without prior planning. However, all agreed that meeting the need to find outside resources would not be difficult because of internal, administrative rules. Clearly, managers make a distinction between the need for internal arrangements like "bending the rules" and the external demands of working with the community. The majority viewed external, community demands as nonroutine and requiring anticipatory planning. The key question is to what extent this planning is taking place or is viewed as feasible if not already under way.

Sharing Emergency Planning Assumptions

Most managers considered planning for these demands somewhat feasible, if not already under way in their jurisdictions. About one-third of all California and Washington departments reported the availability of emergency resource rules and media information center arrangements, as shown in Table 4. Fewer reported citizen volunteer plans in place, and only 12% of the 250 departments reported arrangements for public information hotlines. However, 40% to 50% viewed resource rules, media centers and citizen volunteer plans as quite likely to be developed in the future. It was only in the case of hotlines that a sizeable number of departments foresaw little or no chance of adoption.

These findings have to be qualified, though. Consistency between departmental opinions in the same city or county varied a great deal. In many cases, only one out of several departments reported the

bending the rules

sharing experience

Table 3
Difficulty of Meeting Disaster Demands With No Planning

DEMAND:	Not Very Difficult	Somewhat Difficult	Much More Difficult
Procuring Resources With No Streamlined Rules			
Washington	60%	28%	21%
California	58%	25%	27%
Utah	43%	29%	28%
Managing Volunteers With No Volun. Plan			
Washington	22%	21%	57%
California	16%	18%	66%
Utah	21%	36%	43%
Managing Public Information With No Media Center Plan			
Washington	21%	29%	50%
California	11%	24%	65%
Utah	36%	14%	50%
Setting Up Hotline Without Contingency Plan			
Washington	18%	22%	60%
California	15%	21%	64%
Utah	21%	36%	43%

formal incorporation of a given strategy in their response plans. In other cases, different departments in the same city or county reported adoption of different strategies. These inconsistencies illustrate one of the peculiar and somewhat troublesome aspects

confidence in proven strategies



A view of Salt Lake City's Capitol during the clean-up

of community disaster response planning. Agencies are used to responding to specific emergencies where their expertise places them in fairly certain command of the situation (e.g. a fire or a major accident). In a community-wide emergency, however,

major disaster, a great number of citizens will be seeking information on what protective actions to take. They cannot be ignored. Awareness of the total disaster planning strategy, however, is often overlooked because of the greater immediacy of each agencies' day-to-day approach to their own routine emergency responsibilities.

protective actions cannot be ignored

Table 4

Feasibility of Adopting Strategies: Individual Views

STRATEGY:	Little or No Chance	50-50 Chance	Good Chance	Already Adopted
Emergency Resource Rules				
Washington	6%	16%	50%	28%
California	4%	15%	46%	35%
Utah	7%	0%	36%	57%
Untrained Volunteer Plan				
Washington	20%	27%	39%	14%
California	15%	21%	44%	20%
Utah	0%	0%	14%	86%
Media Information Center				
Washington	12%	19%	39%	31%
California	11%	17%	40%	32%
Utah	7%	7%	22%	65%
Public Information Hotline				
Washington	27%	31%	30%	12%
California	33%	23%	31%	12%
Utah	14%	0%	36%	50%

Explaining Patterns of Adoption

Even though individual departments are not often aware of the specialized plans that have been made for a major community disaster, the patterns of reported adoption of our four strategies illustrated some important influences at the jurisdictional level: experience, size and a tendency to build on the familiar before investing in new methods. Tables 5 and 6 illustrate the role of experience in adopting what managers rated as the less feasible and less familiar strategies: citizen volunteer plans and public information hotlines. Jurisdictions where no departments have experience with these problems were highly unlikely to have any departments reporting adoption of either strategy. In the case of size, it was found that jurisdictions with populations over 75,000 were about twice as likely to report adop-

adopting volunteer plans

every agency is responding at once. The community and news media are heavily involved and, as Lois McCoy of the National Search and Rescue Association pointed out not long ago, what you get is "apples, oranges and bananas all responding together... each to his or her special emergency."

Awareness by apples of what oranges have planned for could be useful. For example, out of 54 departments reporting adoption of citizen volunteer plans in this sample, only five were fire departments. Fire departments need to know that plans exist, however, for keeping citizen helpers from overwhelming and distracting their personnel in a large scale disaster — as was the case in the air crash incident described at the outset of this article. Similarly, out of 31 departments reporting arrangements for public information hotlines, only two were fire departments. Even in some smaller emergencies, fire dispatch personnel are often overwhelmed with calls from the public. Thus, provisions for steering calls away from essential communications in a major disaster can have benefits for first-response agencies like fire departments. The point here is that in a

Table 5
Operational Experience With Volunteer Management vs. Adoption of Untrained Volunteer Plans

Departmental Experience:	N = 77 Jurisdictions		
	Adopted	Not Adopted	
One or More Departments Have Disaster Experience	62%	38%	100% (42)
One or More Departments Have Emergency Experience (But not Disaster)	29%	71%	100% (24)
No Departments Report Experience	36%	64%	100% (11)
TOTAL	48%	52%	100% (77)

tion of each of the strategies than were smaller jurisdictions. This probably points out the role of greater resources in allowing specialization to meet such needs. Of course, smaller communities also face a need to deal with community volunteers and public information needs in a disaster (see Kartez 1984).

inconsistent responses

Table 6
Operational Experience With Disaster or Emergency
Hotlines vs. Adoption of a Hotline Plan

N = 77 Jurisdictions

<i>Departmental Experience:</i>	<i>Adopted</i>	<i>Not Adopted</i>	
One or More Departments Have Disaster Experience	64%	36%	100% (25)
One or More Departments Have Emergency Experience (But Not Disaster)	63%	37%	100% (8)
No Departments Report Experience	11%	89%	100% (44)
TOTAL	34%	66%	100% (77)

We also found that jurisdictions tend to build on the familiar before working out community disaster response plans shown in Table 7. Table 7 shows that unless a jurisdiction adopts one of the more widely accepted planning strategies (e.g., emergency resource rules or media arrangements), it is less likely to have made arrangements for more usual de-

Table 7
Patterns of Adoption by Jurisdictions

<i>Number of Strategies Adopted</i>	<i>Resource Rules</i>	<i>Volunteer Plan</i>	<i>Media Cntr.</i>	<i>Public Hotline</i>	<i>No. of Localities</i>
Only 1 Adopted	57%	0%	43%	0%	12
Two Adopted	79%	36%	64%	7%	16
Three Adopted	80%	75%	90%	40%	21
All 4 Adopted	100%	100%	100%	100%	15

mands (e.g., volunteer plans and public information strategies like a hotline). For example, virtually all (92%) of the cities and counties reporting arrangements for a public hotline also have plans working closely with the news media to disseminate public information in a crisis. Unfortunately, jurisdictions that have not planned for media's involvement in disaster public information problems have not planned for the alternative either. These results suggest that management is less likely to develop comprehensive strategies for a disaster problem like public information unless the process has started with applying the simpler and/or more familiar experiences of management to the potential problems faced in a disaster.

Perceived Obstacles to Disaster Planning

Responding to disasters is a unique area of public service policy because it is the one instance where, under most state statutes, localities are free to plan for and carry out virtually any physical, fiscal or organizational task in a disaster. This makes the individual views and intentions of key public managers an essential part of planning for community response and, frankly, the major ingredient in determining what kinds of plans will result.

In an attempt to assess the acceptability of the planning methods included in our survey, individual views on several obstacles to adoption were collected. These obstacles included perceived costs, legal constraints, lack of operational benefits and low administrative priority for disaster planning. They were selected for inclusion in the survey based on a pilot study of managerial views carried out in 1983 (Kartez and Kelley 1985). The following discussion outlines the extent to which the larger sample of managers viewed these constraints as significant.

Resource Rules: Thirty-six percent of the 250 managers surveyed agreed that they have the informal ability to "bend administrative rules" in a disaster without formal arrangements. Most (75%) consider the ability to make flexible decisions in a disaster, without the burden of routine administrative constraints, as being essential. Only 30% believe there are legal obstacles to doing this. This is a good example of where a perceived constraint does not really exist, as statutes in all of the states surveyed here provide for local suspension of routine procedures in a formally declared disaster. This points out that the planning process does not always change perceptions of how a disaster situation is different from the traditional legal constraints on public service administration. Finally, ninety-two managers (37%) believed that disaster planning will need greater administrative priority before emergency resource rules will be formally adopted in their jurisdiction's plans.

Volunteer Plans: A large majority (80%) agreed that individual citizens can provide a useful resource in a disaster response. A smaller proportion (30%) qualified this opinion by saying that only *trained* volunteers would be useful. Half (47%) saw the risk of legal liability as a drawback to making plans for using volunteers. Again, state statutes provide special authorization for use of volunteers in a declared disas-

assessing the perceived costs

building on the familiar

comprehensive strategies

ter, with reduced liability risks for local government. Given the probability that many key department heads are not aware of these provisions, the concerns surrounding legal liability have a negative effect on planning possibilities. One-third stated that the lack of staff to supervise volunteers is also an obstacle to their use. One-third also stated that disaster planning will need higher priority before effort will be expended to plan for volunteer organization.

Media Centers: Few managers appear willing to leave disaster relationships with the media completely unplanned. A total of 81% disagreed with the idea some managers have espoused that "A media center isn't worth planning because they'll find us anyway." Only 21% felt that staff needs are an obstacle to planning for and operating a media information center in a disaster. However, despite the high acceptability and perceived benefits of this strategy, 30% believe disaster planning will need higher local priority before such arrangements will be made.

Disaster Hotlines: An alternative to complete reliance on the commercial media for disseminating disaster public information was regarded as having some benefits (40%) or great benefits (40%). Equally, 80% of managers surveyed believe citizens will call a hotline to get instructions and information in a prolonged community disaster response and recovery. Tempering this enthusiasm, however, was the response of 57% of all managers who questioned the survival of phone systems in a major disaster. This was more of a drawback among earthquake-wary California managers (68%) than among Washington (46%) or Utah (36%) managers. Many of those responding cited a lack of staff (43%) and the costs of hotline equipment (38%) as principal obstacles to providing for a public hotline. About 40% believe that disaster planning needs greater priority before such arrangements will be made.

Positive Factors

Two factors also appear to have positive, rather than dampening influences on individual opinions about adopting these disaster response planning strategies: operational experience and involvement in the planning process. The managers in this sample have had much more operational experience with acquiring emergency resources and providing emergency public information to the media than ex-

perience with managing citizen volunteers or operating special information efforts like hotlines. Those departments with volunteer and hotline experience rate these two strategies as much more feasible, on average, than managers without such experience. Experience with public information efforts in general also made a strong difference in the opinions of Washington participants. As a group, they have had

liabilities of volunteers

Ravell Call



The streets of Salt Lake City served as a river course during the 1980 flood

less experience in this area (56%) than either California (75%) or Utah (86%) participants.

Departmental involvement in disaster planning also made a moderately positive difference in responses regarding the three community-oriented strategies (volunteers, media and mass public information). Managers whose departments have committed staff to disaster planning responsibilities or who frequently participate in planning activities with other agencies view the chances of adopting planning arrangements as being better.

No single factor was found to completely explain variations in local planning choices and opinions. It can be said, though, that jurisdictions which 1) have departments experienced in community disaster behavior; 2) have departments which are involved in ongoing disaster planning activities and; 3) have managers which value disaster planning as a priority are those most likely to devote effort to these needs.

Planning Implications

The results of this survey are not necessarily surprising but they do point out that local government willingness and ability to plan for unfamiliar demands of a crisis are affected by a mixture of influences, including experience, good intra-organizational communications, and support from top management. Each ingredient plays a key role. The most troublesome aspect of community crisis planning, of which disaster planning is only one component, is the basic difficulty of planning for unfamiliar, hence somewhat unreal, problems. Because of this, experience plays a great role in shaping perceptions of what to plan for.

The results of this survey show that a good deal of experience could be shared within the confines of one city or county's personnel. This is especially true recalling that many cities and counties are less familiar with disaster planning requirements than those in the regions covered here. As time goes by, individual agencies' assumptions about what is being planned for and what can and should be included in plans tend to drift apart. Different experiences and perspectives on the structure of relevant problems may lead to different expectations of planned solutions. Because of this problem, the most common local disaster planning activity involves an annual simulated crisis decision making exercise. As a recent Federal Emergency Management Agency planning handbook points out: "Key leaders more often

than not will not *know* what the local plan provides for, even if personnel from their own departments have participated in developing it . . . the ability to conduct coordinated lifesaving operations can only be developed by exercises."

Local emergency coordinators often have difficulty securing key management's participation in these exercises, as well as involving the departments in an ongoing process. Out of the several hundred departments participating in this survey, only half participated in planning activities more than once in the preceding year. Under these conditions, plans can become obsolete or changed without notice. Sharing knowledge and experience more frequently could have an impact on planning choices and the quality of coordination. Although exercises are essential, resistance to them can be stiff because they are performance-oriented rather than forums for discussion. As the emergency manager in one urban county of over one million put it: "Exercises sometimes embarrass the department heads, and we're not trying to do that. Our approach has changed to a learning experience, not putting them on the spot."

Table 8
Preferences for Planning Information

Info. Sources	Little or No Benefit	Some Benefit	Great Benefit
Talk w/ Experienced Managers	4%	35%	61%
Seminars on Cases	11%	52%	38%
All-Day Exercises	16%	51%	33%
Tabletop Exercises	19%	56%	25%
Written Case Studies	29%	60%	12%

We asked this sample of managers to rate the benefits of several different sources of information on disaster planning needs, including exercises (Table 8). A clear preference was expressed for getting this information from contact with professional colleagues who have managed large scale disaster responses in other areas. Case studies and emergency exercises were also favored methods.

This finding created a dilemma given the other results of the survey; there is clearly a good deal of experience that can and should be shared between the agencies in the same city or county. For example, managers that perceive certain legal obstacles need to know what arrangements already exist that nul-

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professional exchange

communication problems

exercises as learning experiences

continued from page 18

lify such problems. More complex are the dissimilar expectations and assumptions of key managers involved in disaster relief.

Many studies of private sector management have found that decision makers tend to act on what they know, sometimes to great disadvantage in the face of changing environmental demands (Smart 1978). New organizational planning processes have been developed whose objective is to "surface strategic assumptions" among the key actors in large institutions (Mason and Mitroff 1981). The focus of these procedures is not on facts and expertise, but on the perceptions and assumptions made by individuals. A similar process for sharing assumptions is needed in community disaster planning—one that falls somewhere between the seat-of-the-pants decisions of an exercise and the boring nature of research reports. Although these kinds of opportunities are becoming more available at FEMA's National Emergency Training Center and the State of California's Special Training Institute, limited numbers of training facilities cannot meet this demand on a national scale.

This is certainly an area where professional planners can play a role, although opportunities are currently scarce. The most contact that the average local planning director has with the disaster planning process is receiving a copy of the new plan every few years and finding that he or she has been designated director of emergency housing in event of a disaster. As one planning director pointed out to us, though, there are techniques for participation and surfacing objectives that are planners' stock-in-trade, and these may be applicable to the complexities of disaster planning.

There is also a lesson in disaster planning for planners that are concerned with the difficulties of anticipating remote and unfamiliar community crises. A major transportation shutdown or water shortage requires a number of complex actions by a variety of agencies—many of which are unaware of how a total response should be coordinated (see Meyer and Belobaba 1982). Like disaster planning, the problems are not just technical but organizational in nature. Emergency managers can borrow the planning profession's process for discussing divergent and sometimes conflicting views of disaster problems. As planners, we can learn from the lessons of disaster management and apply them to a much broader range of "crisis" situations to which our localities are vulnerable.

Notes

1. This mini-case-study is based on remarks made by Wichita Falls former city manager at the National Emergency Training Center on August 22, 1984.

articulating the strategic assumptions

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organizational elements

planning for the unfamiliar