

The Intergovernmental Dimensions of Natural Disaster and Crisis Management in the United States

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I. INTRODUCTION

Every year thousands of communities and cities across the United States are affected by natural disasters. In the last decade alone, natural disasters such as floods, hurricanes, and earthquakes have claimed the lives of thousands and have led to billions of dollars being spent on response and recovery. For instance, the federal government spent almost \$120 billion (in constant 1993 dollars) on disaster assistance between the fiscal years 1977 and 1993 (Joint Task Force 1995). Likewise, state expenditures on natural disasters increased by 56% between the fiscal years 1992 and 1994, and states spend approximately \$1.6 billion in emergency management per year (NEMA 1994; Cabot 1996). In light of the rising cost of natural disasters and the devastation caused by them, there is a growing consensus that the current approach to natural disasters needs reworking. To further the goal of finding a new approach to disaster management, a number of reports and legislative initiatives have appeared that focus on reworking approaches to disaster management. In particular, two major trends stand out clearly in these efforts to improve disaster management. First, attention has increasingly focused upon hazard mitigation as opposed to recovery as a solution to the problems caused by natural disasters (FEMA 1994, 1995a, 1995b; NAPA 1994). Second, the focus on mitigation has been accompanied by an increasing emphasis on the devolution of responsibilities to the state and local levels (FEMA 1996a, 1996b).

While the first of these issues (i.e., mitigation strategies) has received a fair amount of attention, relatively less scholarly work has been done on the second issue of analyzing how states have coped and will cope with their new responsibilities, particularly in the area of mitigation. The gaps in the literature leave several questions unanswered, namely: How have states been handling their responsibilities in disaster management and in mitigation? Will the devolution of powers to state governments be successful? Will states be willing to shoulder more policy responsibilities? How will states cope with these new burdens on their political, economic, and social structures?

To answer these questions, neglected in prior studies of disaster management, this chapter focuses on the role of the 50 states in disaster management and mitigation and

analyzes the determinants and constraints to devolution. Section II below is a brief discussion of the factors that have led to a renewed emphasis on devolution and mitigation in emergency management in the United States. Section III presents a description of the main aspects of federal legislation and administrative regulations dealing with mitigation at the national level. To answer the main research question posited in this essay, I examine existing efforts made by state governments to cope with natural disasters in Section IV. Next, I turn to the problems that states might encounter by analyzing the factors that could hinder or help state efforts to cope with emergencies. Using theories pertaining to the role of state political institutions, political elites, interest groups, and citizens, I analyze the potential influence of these factors on state commitment and capacity to manage mitigation effectively. The chapter ends with a brief conclusion.

II. DEVOLUTION AND MITIGATION

As discussed earlier, there has been a renewed emphasis in emergency management on two issues: devolution and mitigation. The reasons underlying this emphasis are as follows:

First, the costs of natural disasters have been important in spurring policy makers to recognize the importance of preventive measures to lessen the impact of disasters on life and property. Over the past decade alone, disasters such as Hurricane Andrew, Fran, and more recently Hurricane Georges have resulted in millions of dollars worth of damage (Beatley 1996; Beatley and Brower 1996). These events galvanized policy makers at the federal, state, and local levels to pay more attention to mitigation and prevention. For instance, these events added to the growing recognition among policy makers that unplanned communities and growing populations, particularly in hazard-prone zones, are likely to worsen the impact of disasters on human lives and property. Second, the rising costs associated with natural disasters have led policy makers at the federal level to search for means to cut these costs. One solution has been to reexamine cost sharing between federal, state, and local governments. As in other policy areas, devolution from the federal to the state levels has been seen as means of reducing the burden placed on federal actors. Third, related to this issue, is the growing perception on the part of federal legislators that federal disaster assistance policies may act as a disincentive to states to shoulder the responsibility for disaster preparation, response, and recovery. The report of the bipartisan task forces of the Senate and House released in 1994 (supported by similar reports from the House and Senate) concluded that current federal disaster assistance policies in some instances may discourage individuals, communities, and state governments from taking action to prepare for, respond to, and recover from disasters (U.S. Senate Bipartisan Task Force on Funding Disaster Relief 1994; U.S. House of Representatives 1994; U.S. Senate 1995). Finally, devolutionary trends in other policy areas ranging from welfare to the environment have influenced the policy-making process with respect to disaster management as well (Donahue 1997). Devolution has been increasingly emphasized as a panacea to all ills ailing federal government, particularly since 'Reaganomics' took hold in the 1980s. Ideologically then, it is seen as being desirable to both federal and to some state actors. This prevailing ideology has affected the terms and parameters of the debate in emergency management as well.

For these reasons, a "pound of prevention as opposed to an ounce of cure," along with devolution, have become the new *mantras* of the disaster management pundits and

experts. These ideas have been put into practice through federal legislation and administrative regulations, which are examined next.

III. FEDERAL LEGISLATION AND ADMINISTRATIVE REGULATIONS DEALING WITH MITIGATION AND STATE RESPONSIBILITIES

The federal government has undertaken several measures to reflect the increased emphasis placed on mitigation and to increase state efforts in this area. The most important of these measures has been the passage of the Stafford Act of 1988, which mandated state adoption of hazard mitigation plans and allocated money for hazard mitigation. In addition, the Federal Emergency Management Agency has also developed implementation rules and policy responses to federal legislation. Of these, two of the most important are the implementation regulations promulgated by the Federal Emergency Management Agency (FEMA) for the Hazard Mitigation Grant Program (HMGP) (under the Stafford Act of 1988) and for the Flood Mitigation Assistance Program (FMAP) (created under the Flood Insurance Reform Act of 1994). In addition, the adoption of a National Mitigation Strategy by FEMA helps coordinate these different programs. In this section, I briefly review provisions of the Stafford Act relevant to mitigation activities at the state level, followed by a brief review of the relevant rules and policies adopted by FEMA.

A. The Stafford Act of 1988

The Stafford Disaster Relief and Emergency Assistance Act of 1988 emphasized three major means of undertaking mitigation: (1) Section 409 mitigation plans; (2) Section 404 mitigation grants; and (3) Hazard Mitigation Survey Teams and Interagency Hazard Mitigation Teams (the latter were established under a 1980 Office of Management and Budget Directive and incorporated into Section 206 of the Stafford Act) (Godschalk 1996).

Under Section 409 of the Stafford Act, states are required to prepare state disaster mitigation plans as a condition of eligibility for federal disaster assistance. The 409 plans require states and their localities to identify hazard risks and to adopt programs and policies to reduce such current and future risks. FEMA can, under the provisions of this section, condition disaster assistance funds on the implementation of state 409 plans. However, while this provision exists, FEMA has seldom used it to coerce states in implementing its 409 plans.

The Stafford Act requires that state 409 mitigation plans contain elements addressing the following issues (Godschalk 1996; Kaiser and Goebel 1996):

- Assessment of natural hazards
- Hazard mitigation goals and objectives
- Analysis of existing policies, and state and local capabilities to mitigate hazards
- Proposed strategies, programs, and actions
- Proposed approach to implementation
- Proposed approach to monitoring of implementation and hazard conditions
- Proposed approach to evaluation of plan and implementation
- Proposed approach to updating the plan

While Section 409 deals with planning, Section 404 of the Stafford Act deals primarily with fiscal issues and aimed to solve funding issues with respect to mitigation. Under

this section, the HMGP was created. This program provides federal matching funds for state and local mitigation projects (Joint Task Force 1992). A more detailed discussion of the HMGP follows in Section III.B, below.

Incorporated into the Stafford Act is also a provision to facilitate mitigation planning and implementation in the wake of a flood-related disaster (developed by the U.S. Office of Management and Budget and subsequently incorporated into the Stafford Act). This provision established a procedure for activating postdisaster mitigation teams of federal, state, and local representatives. Thus, following every disaster, an Interagency Hazard Mitigation Team is called into action. The main mission of this team is to quickly formulate a postdisaster report that identifies hazard mitigation opportunities and recommends actions. The team does this by reporting immediately to the disaster scene and reviewing the damage. The team recommendations are then intended to act as a feedback mechanism and guide the state in the preparation of its 409 hazard mitigation plan and its 404 hazard mitigation grants application. The Stafford Act also provides for federal/state Hazard Mitigation Survey Teams for non-flood-related disasters. The functions of these teams are similar to those of Interagency Hazard Mitigation Teams (Godschalk 1996:6).

B. Mitigation Policies and Programs Adopted by the Federal Emergency Management Agency

To facilitate the implementation of federal legislation dealing with mitigation and the devolution of responsibilities to the state level, the Federal Emergency Management Agency has promulgated a number of regulations and policies. Some of the most important among these are regulations for the HMGP and the Flood Mitigation Assistance Program. In addition, the development of a National Mitigation Strategy in 1994 has been crucial to achieve mitigation goals and develop partnerships with state and local governments, along with citizens and the private sector. These are reviewed briefly in turn.

1. *The Hazard Mitigation Grants Program: Implementation Rules*

As discussed above, the HMGP was created in 1988, by Section 404 of the Stafford Disaster Relief and Emergency Assistance Act. While the Act provides for funding mechanisms, it is FEMA that implements this legislation. More specifically, it is FEMA that assists state and local communities in implementing long-term mitigation measures following a presidential disaster declaration. To meet this objective, FEMA can fund up to 75% of the eligible costs of each project. The state or local cost-share match does not need to be cash; in-kind services or materials may also be used. Federal funding under the HMGP is now based on 15% of federal funds spent on the public and individual assistance programs (minus administrative expenses) for each disaster with the passage of the Hazard Mitigation and Relocation Assistance Act of 1993 (FEMA 1995a, 1995b).

The HMGP can be used to fund projects to protect either private or public property as long as the projects in question comply with program guidelines and fit within the overall mitigation strategies of the state and local governments involved. Examples of projects that may be funded include the retrofitting of existing structures to protect them from future damage, the acquisition or relocation of structures from hazard-prone areas, and the development of state or local standards designed to protect buildings from future damage. Eligibility for funding under the HMGP is limited to state and local governments, certain private nonprofit organizations that serve a public function, authorized tribal

organizations, and Alaska Native villages or organizations (FEMA 1995a, 1995b, 1996a).

Over \$2 billion has been invested in mitigation projects under FEMA's HMGP since 1993. However, many of these projects are not completed yet because of requirements for multiple agency review by states and FEMA, misunderstanding of project eligibility, and inadequate local plans to develop the projects. To improve management of the HMGP, FEMA has recently promulgated a new set of implementation rules. Under these new rules, a "dual management system" is created to encourage states to develop their mitigation capabilities. More specifically, under this new system, a state, based on its mitigation capabilities, is classified as either a "managing" state or a "coordinating" state at the time of a declared disaster. If a state is classified as a "coordinating state," it will require a FEMA sign-off on projects. However, if it is designated to be a "managing state," the state will be given final authority for project fund dispersal. The classification categories are based on several factors or criteria such as the presence of a full-time permanent hazard mitigation officer, an approved state mitigation planning process and documentation, and the ability to provide technical assistance on mitigation techniques (FEMA 1996a:18-19).

Under the new rules promulgated by FEMA, there is also greater clarification about the eligibility of projects, communities, and hazards addressed by HMGP projects. In particular, these new rules provide for a shift away from structural to nonstructural projects, which is again part of a larger national trend in hazard mitigation. Hence, projects that would invest in major structural works or the building up of areas through artificial beach replenishment are considered more or less "taboo." The rationale behind this rule is the avoidance of additional development that could exacerbate existing problems in coastal areas. Moreover, structural approaches to mitigation have been discredited by existing research, which clearly shows that such measures are costly, have a negative impact on the environment, and render people more vulnerable to the damaging effects of natural disasters (Interagency Floodplain Management Review Committee 1994; Faber 1996; Federal Interagency Floodplain Management Task Force 1992a, 1992b).

2. The Flood Mitigation Assistance Program: Implementation Rules

The Flood Mitigation Assistance Program was created under the National Flood Insurance Reform Act enacted in 1994. Similar to the HMGP, implementation rules adopted by FEMA for the Flood Mitigation Assistance Program clarify eligible project funding, describe procedures and criteria for allocating funds, and generally seek to provide states with greater flexibility in program implementation.

Three types of grants are provided under this program: planning assistance grants, project implementation grants, and technical assistance grants. To be eligible for funding, a locality or state must have a Flood Mitigation Plan in place. The rule also stipulates what must be included in a Flood Mitigation Plan. The preparation of these plans themselves renders a state or locality eligible for the first type of grant—i.e. planning assistance grants. In some cases, a state's 409 plan or a local plan prepared under the Community Ratings System fulfills eligibility requirements for further funding (FEMA 1996b; Godschalk 1996).

Planning assistance funds are allocated through FEMA's regional offices by a competitive process. Other funds in this program are also allocated through FEMA's regional offices: the allocation is weighted according to the number of repetitive loss structures

and the number of flood insurance policies in force. Examples of eligible projects are elevation, acquisition, demolition, or relocation, minor structural projects, and certain forms of beach nourishment. Similar to the HMGP program, structural measures and artificial beach replenishment are strongly discouraged.

3. *The National Mitigation Strategy*

The National Mitigation Strategy represents the first major attempt at the federal level to put forth a systematic agenda to develop a strategic plan for mitigation. FEMA began to develop the plan in 1994 based on a series of national mitigation forums involving a vast number of organizations, citizens, and public and private organizations. The resulting document presents a vision for the future, a set of principles underlying the main strategy, an overall national mitigation goal, and a series of more specific mitigation objectives. While somewhat difficult to isolate from the overall strategy, which is comprehensive in its scope, some of the major aspects of this strategy are critical to developing state capacities in mitigation. The relevant parts of the National Mitigation Strategy that apply to state capacities in mitigation are as follows:

The strategy is based on the principle that all mitigation is local and that the building of new federal-state-local and public-private partnerships is the most effective way of implementing measures to reduce the impact of natural hazards.

One of the objectives of the Mitigation Action Plan of the National Mitigation Strategy aims to encourage state and local governments to develop sustained administrative structures and resources for mitigation programs, to adopt and enforce building code and land use measures, and to conduct ongoing public information campaigns on natural hazard awareness and mitigation.

The strategy also calls for the federal government, in partnership with state and local governments, to provide leadership, coordination, research support, incentives, and resources to encourage communities, businesses, and individuals to undertake mitigation to minimize potential disasters and to employ mitigation strategies during the recovery process following disasters.

States and localities are also encouraged to prepare a risk assessment and to create disaster funds.

The strategy also laid down that within 5 years of its adoption, infrastructure funds and other federal assistance would be conditioned on the local adoption and enforcement of building codes and "life-cycle maintenance plans" for community buildings.

While these are some of the main elements of the National Mitigation Strategy relevant to the role of state and local governments, the strategy also contains a number of other measures that clearly renders it a watershed document in the history of U.S. mitigation policy. Moreover, the strategy is one of the main elements through which the goals of mitigation and the devolution of responsibilities to state governments are to be achieved. However, the strategy also has a number of flaws. A major drawback of the National Mitigation Strategy as formulated is that it relies more on rhetoric than reality. It is overly ambitious and some of the strategies laid down to achieve the stated goals may not be conducive to their effective implementation. As discussed further on, the unclear and ambiguous nature of some of the goals and strategies can hinder the achievement of mitigation and pose obstacles to the assumption of greater responsibility by state governments.

IV. STATE EFFORTS IN DISASTER MANAGEMENT

While federal actors play an important role in hazard mitigation and disaster management, emergency management in the United States is a shared responsibility of governments at the federal, state, and local levels. The review of federal legislation and of FEMA policies discussed above elucidates the role that states must play in emergency management: for instance, state and local governments are mandated to undertake or are given incentives to undertake certain mitigation measures. Mandated measures include the development of state 409 plans and the HMGP program. In addition, as the federal legislation discussed in the previous section indicates, states are given incentives to develop disaster funds for mitigation and undertake general measures to improve their mitigation capabilities. If we are to understand how states will cope with greater responsibilities in the future, it is important to first understand how states measure up so far in these areas. Below, state efforts in the development of 409 plans, measures undertaken under the HMGP program, and expenditures undertaken for mitigation purposes are examined.

A. State 409 Plans

Studies undertaken recently by a team of scholars at the University of North Carolina—Chapel Hill (Godschalk 1996; Healey and Berke 1996; Kaiser and Goebel 1996; Young et al. 1996; Berke and Bohl 1996; Beatley 1996) provide an excellent and comprehensive analysis of state 409 plans. In their assessment of the content and quality of state 409 plans, these scholars find that, in general, state 409 plans are at their strongest in describing and assessing present hazards, but they are much weaker in assessing risk in a systematic manner and assessing the vulnerability of people and property to hazards. Moreover, they find that mitigation action proposals tend to stress measures that are the easiest to implement, such as promoting awareness and providing technical assistance, rather than actions that are more effective but that require greater political commitment, cost more, and intervene more directly in the development process (such as acquisition of property at risk, land use regulations, and the protection of community infrastructure). Implementation proposals were mostly very general and broad rather than specific, while most plans do not emphasize monitoring, the evaluation of implementation, and the changing status of hazards and vulnerability. While most plans met the pro forma requirements of the Stafford Act, the overall quality of plans was mediocre in their assessment and most plans were descriptive rather than being goal- and objective-oriented (Kaiser and Goebel 1996). In short then, the adoption of these plans appear to be purely symbolic rather than real and seem to be mainly for the purposes of fulfilling federal mandates to qualify for fund assistance.

B. State 404 Funds: The HMGP Program

As mentioned above, the Hazard Mitigation Grants Program (HMGP) was created under Section 404. This program provides federal matching funds for state and local mitigation projects. These grant funds are contingent upon disaster declarations and are limited to a percentage of the federal public assistance monies made available. FEMA committed about \$437 million in the years between 1998 and 1995 for this program and approved approximately 905 applications. Despite these impressive numbers, the 404 program has been riddled with problems. In an evaluation of the HMGP, a joint task force of the

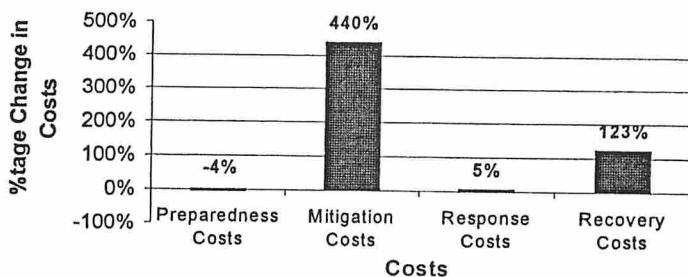


Figure 1 Changes in state costs for comprehensive emergency management, 1992–1996. (From National Emergency Management Association 1996.)

National Emergency Management Association and the Association of State Floodplain Managers found a number of problems with it: a lack of hazard mitigation principles and guidance, difficulties in state coordination, a slow pace of implementation, and failure of states and localities to identify mitigation opportunities before disasters occurred.

C. State Expenditures for Hazard Mitigation

Analysis of state expenditures on disaster management was recently undertaken by the Council of State Governments and the National Emergency Management Association (NEMA/CSG Report 1996). Figure 1 presents the results of the analysis of state expenditures. As can be seen from this figure, states significantly increased spending for comprehensive emergency management. In particular, state expenditures for mitigation increased by 440% between 1992 and 1996.

Figure 2 presents a graphical overview of state mitigation expenditures over the years 1992 to 1994. As seen in this graph, overall state spending totaled \$130,217,433 in 1992. This figure rose to \$206,135,652 in 1994. On average, states spent approximately \$4,481,210 on mitigation activities in 1994. Analysis by the National Emergency Management Association also shows that, contrary to the perceptions of federal actors, the number of state disaster declarations outnumbered the number of federal declarations in the years 1992 to 1994.

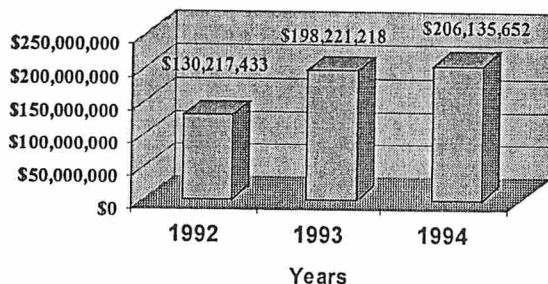


Figure 2 State mitigation expenditures, 1992–1994. (From National Emergency Management Association 1996.)

These reductions in federal declarations and the increase in state declarations have had a major impact on state pre- and postdisaster spending. When compared to federal payments by FEMA to state and local governments for predisaster expenses, state predisaster expenses were found to be higher. State costs for predisaster emergency management in the 3-year period from 1992 to 1994 totaled \$1,934.1 million, while FEMA expenditures totaled \$367 million. Similarly, state costs for response and recovery rose dramatically between 1992 and 1994 from \$609.4 million to \$953.5 million (NEMA/CSG Report 1996:15).

V. FACTORS AFFECTING STATE CAPABILITIES IN DISASTER MANAGEMENT

While the discussion above indicates that states have been making progress in improving their capabilities in disaster management, it also indicates that this progress has been slow. While states have improved their capabilities, they still face problems in developing their mitigation capabilities. To understand how states will cope with the devolution of even greater responsibilities in the area of emergency management, it is important to understand the issues and factors that affect state capabilities and willingness to assume greater responsibilities in the management of natural disasters. I focus on the issues affecting the policy readiness of state governments by analyzing them through various theoretical lenses. In particular, I analyze the influence of and theoretical issues related to the following factors: (1) problem severity and exposure to natural hazards (2) the ability and capacity of states; (3) the role of interest groups; and (4) the importance of administrative and political elites.

A. Problem Severity

One major influence on state emergency management is the magnitude of the problem itself or the susceptibility of the state to natural disasters. States such as California, Florida, Texas, and Louisiana, which have experienced earthquakes, floods, and hurricanes, are more likely to be sensitive to the need to adopt mitigation measures. Indeed, researchers have long regarded problem severity as a significant influence on state regulation and the adoption of innovations (Walker 1969; Gray 1973; Hilgartner and Bosk 1988; Hedge and Scicchitano 1993; John 1994; Nice 1994). In general, problem severity can spur state policy makers to address a problem. For instance, disasters can act as "focusing events" or crises that can galvanize policy makers into action (Kingdon 1984).

However, the assumption that objective indicators of need will prod policy makers is somewhat simplistic and neglects dynamics intrinsic to the policy process. Previous research has demonstrated that policy making is not based only on scientific findings of need but also on perceptions of that need (Berke and Beatley 1992; Ringquist 1997). The manner in which issues of need are framed, defined, and perceived by policy makers will very likely determine the actions taken by them. In addition, policy makers have to be cognizant of measures available to craft effective remedies to solve the problem.

With respect to natural hazards and disaster management in particular, the importance of subjective perceptions of need and problem severity factors become even more complicated and acquires special importance. A number of scholars have noted, time and again, the low saliency and priority attached to natural hazards by policy makers (Rossi

et al. 1982; Burby 1985; Burby et al. 1991; Kunreuther and Kleffner 1992). This renders the adoption of mitigation measures difficult. For instance, scholars have found that in states such as Washington and Missouri, there has been considerable resistance to instituting seismic building codes for residential structures despite studies showing their importance in reducing future losses. Moreover, few residents adopted any mitigation measures voluntarily because they did not perceive an earthquake to pose a credible threat (Drabek et al. 1983; Kunreuther and Kleffner 1992). Others might not voluntarily adopt mitigation measures because budget constraints combined with relatively short time horizons may discourage individuals from adopting expensive cost-effective mitigation measures. Furthermore, even if scientists and experts judge risks as being important, elected officials may be less supportive of management or mitigation actions that are costly or politically unpopular (Mushkatel and Nigg 1987; Lambright 1982). If the capacity to implement mitigation actions does not exist, it may be difficult for states to undertake such policies (Mittler and Alesch 1996).

In view of the latter considerations, it is likely that the presence of other factors—such as institutional capacity and resources, interest group support, and institutional commitment—are also necessary for policy makers to take action in mitigation and disaster management (Mittler 1988). I discuss these factors next.

B. Capacity and Ability of State Officials

While elite attitudes and their commitment may be important in understanding whether states will be effective in undertaking new responsibilities in emergency management, their ability and capacity to do so will also be important. *Ability* refers to the actual capacity of state governments and agencies to effectively adopt and implement emergency management and mitigation policies. In other words, the funding and staffing levels available to plan and carry out mitigation efforts. With respect to capacity, changes that have taken place over the years at the state level have been positive to a large extent. In particular, over the past decade or so, state institutions have increased in size and capacity, strengthening their ability to deal with new problems and pioneer new public policies in a host of areas (Van Horn 1989, 1993; Bowman and Kearney 1986; Elazar 1984).

For instance, state legislatures have become increasingly professional and have increased their institutional capacity considerably in the last 25 to 30 years. Rosenthal (1993, 1996) has documented the "rise of the legislative institution" in the states from the rural-dominated political backwaters of the 1950s to the modern, more professionalized and representative institutions of today. The reform and revitalization in state legislatures resulted in the strengthening of institutional capacity and the increasing professionalism of its members (Rosenthal 1993:116–117). Since the 1970s there has also been a dramatic increase in professional staffing. Fiscal staffs, audit and evaluation staffs, caucus and partisan staffs, and legislative and district aides greatly enhanced the ability of legislators to delve more deeply into policy issues, increased oversight capabilities, and enabled legislators to assess the effectiveness of government programs (Rosenthal 1993, 1996). There has also been an improvement in legislative facilities with the construction of new office buildings to provide space for standing committees, staff, and members. Legislators also began spending more time on their jobs, both in and out of session. Moreover, professionals are replacing former groups of "citizen legislators." As per estimates by Rosenthal, approximately two-fifths of the nation's legislators are largely in professional legislatures or moving gradually toward the professional model (Rosenthal, 1996:110). Theoretically,

more professional state legislatures will have greater resources, better-educated members, and higher compensation levels. Hence they will have more resources and information to examine emergency management issues in detail and adopt policies to deal with mitigating natural hazards (Grumm 1971; Lester et al. 1983; Ringquist 1993).

In addition to institutional capacity, fiscal capacity is also important. The greater the resources available to a state, the more likely it is that the state can afford to undertake more stringent regulation or adopt policy innovations (Williams and Matheny 1984; Lowry 1992; Ringquist 1993). However, it is important to keep in mind that while the fiscal health of a state may enable a state to plan and implement mitigation policies, it may lead us to develop facile conclusions regarding the use of such resources by states. It is necessary to also analyze the complexities of the relationship between fiscal health and state mitigation policies. For instance, it is conceivable that if achieving economic development is extremely important to state officials, they may be less willing to adopt mitigation policies that interfere with goals of economic growth. The conflict between goals of economic development and emergency management can be seen, for example, in coastal states. A number of states along the coast have allowed development to continue unimpeded and unrestricted, even though such development is susceptible to coastal hazards and is damaging to the environment (Beatley 1992; Platt et al. 1991; Platt 1994). Similarly, states have allowed development to occur in flood plains despite evidence that such development can be destroyed in the event of a natural disaster.

Thus, even if states have the ability, they may not be willing to use it. Moreover, state emergency management officials often have to counter powerful interests who may oppose emergency management or mitigation measures that are not in their interest. Interest groups may play a powerful role, and it is these actors that I turn to next.

C. Interest Groups

States may face natural disasters and have the capacity to deal with them. However, interest groups may oppose emergency management or mitigation measures if such measures impose costs on them. Theoretically, scholars have acknowledged the role of interest groups in policy making to be vitally important. Theories of interest group influence on policy makers range from those that see interest groups as predominant (Stigler 1971; Bernstein 1955; Bauer et al. 1964) to those that posit interest groups as not exercising any more influence over regulatory policy than any other actors or bureaucrats (Meier 1988; Derthick and Quirk 1985). The former perspective assumes that certain groups of people, who are organized and economically powerful, will have the capability to dominate policy at the subnational level. While this view is compatible with the Madisonian perspective of private parochial interests at the state level modifying policy outcomes, it has been modified considerably to account for characteristics of interest groups, such as size and density, that could affect their capabilities to exert influence over state regulation (Aggarwal et al. 1987; Lowery and Gray 1994). The motivations and actions of other political actors, bureaucrats, and other interest groups themselves have also been found to be important in influencing policy outcomes (Wilson 1989; Mushkatel and Weschler 1985; Petak and Atkinson 1982). Moreover, the evidence on state regulation indicates that interest groups of regulated interests often choose the level of government to lobby (Teske 1994).

The technical complexity of some of the issues involved in the adoption of mitigation measures tends to enhance the importance of interest groups in this area. Technical complexity can lead to what Wilson (1989) characterizes as "interest-group" politics or policy

making that is characterized by the presence of interest-group conflict, with little involvement by other actors outside the system. For instance, mitigation measures such as the adoption of building codes are important. However, building codes are technically complex and there are a number of organized interest groups such as building contractors, design professionals, the insurance industry, structural engineers, architects, energy conservation groups, consumer advocacy groups, and environmental groups that stand to lose or gain from the adoption of wider coverage or more stringent hazard provisions (May 1997; May et al. 1995; Cohen and Noll 1981). For instance, previous studies of building code regulations at the state and local level have shown that interest groups have been important in influencing regulation. Noam (1982) found that the dominance of groups, both advocates and opponents of regulation, was a critical factor in choosing local or national codes. In his study of state oversight of local building regulations, similarly, May (1997) finds strong support for interest group activities in influencing state regulatory choices. Thus, it is important to consider the presence and activity of interest groups in analyzing state emergency management. If such interest groups are powerful, state emergency management officials as well as state elite policy makers need to be motivated and committed to achieving the goals of mitigation.

D. Commitment by Institutional Elites

An important factor determining the activism of states in emergency management is motivation of states to adopt policy innovations is the attitude of institutional elites. The importance of elites in the policy-making process is theoretically supported by the elite perspective of policy analysis. The elite theory of the policy process is closer to the neo-pluralist view: neo-pluralists, such as Lindblom (1977, 1990) challenged the pluralist notion that power was diffuse and argued instead about the privileged position of business. Put in a nutshell, elite theorists argue that power is concentrated in elites who use the resources of their respective organizations to manage and impose order on society. Political and economic stability in society, according to this perspective, does not come about because of a common political culture and some particular set of values. Instead, stability albeit superficial, is created by a forced consensus that is managed and reinforced by the elite. Key decisions regarding policy are thus made by primarily by elites. Popular and electoral politics are, for the most part, mainly symbolic and concerned with middle-level policy issues, according to the elite perspective (Mills 1956; Farazmand 1994, 1999). In short, this perspective stresses the role of the elite in the policy process.

The motivation of institutional actors and elites is also stressed in theories that emphasize the importance of institutions in policy and governance (Noll and Owen 1983; Moe 1989; North 1990; Van Horn 1996). Institutional theories posit that government actors can act independently of interest group pressures and other factors. According to this view, government actors are not merely advocates and representatives of the views and attitudes of various interest groups; rather the attitudes and views of these actors influence the manner in which they process information and affect independently the policies they put in place (North 1990; Van Horn 1996). Institutional theories also recognize that informational constraints and computational limitations of political actors prevent actors from making purely "rational decisions" that are independent of the actor's subjective representation of the decision problem (Alston et al. 1996; North 1990; Cohen and Olson 1972; Cyert and March 1963). Thus, the attitudes and ideological views of state legislators,

governors, and bureaucrats can influence and shape the types of disaster management and mitigation policies that are adopted.

Given the theoretical importance of elite attitudes, one would expect that when state emergency management officials are committed to adopting mitigation policies, there would be a greater likelihood of such policies being adopted. This expectation is supported to some extent by the existing evidence. For instance, researchers have found that one explanation for the variation in the adoption and implementation of state 409 plans discussed above, has been the differing levels of political and organizational willingness on the part of the states to support and pursue hazard mitigation goals and policies (Berke and Bohl 1996).

Elite attitudes towards other groups involved in emergency management can also be important. This is particularly true in the case of emergency management, given that such management is a function of intergovernmental coordination and involves actors at the federal, state, and local levels (Sylves and Waugh 1996; Burby et al. 1997). The perceptions of state officials toward local governments as well as toward federal actors in terms of the roles that each play in mitigation and in emergency management in general may be crucial to achieving the necessary coordination. In achieving this coordination, miscommunication can often occur. For instance, federal actors, particularly in Congress, tend to believe that the federal government does more than its fair share in disaster management, while states do not do as much (U.S. House of Representatives 1994). On the other hand, state officials counter that such allegations are unfair and that states do indeed commit resources and energy to building and maintaining capabilities to protect the lives of citizens from natural and artificial hazards (NEMA 1996).

Such misunderstandings can be costly. For instance, over \$2 billion has been invested in mitigation projects under FEMA's Hazard Mitigation Grant Program since 1993. Many of these projects are not completed yet because of misunderstanding of project eligibility, requirements for multiple agency review by states and FEMA (i.e., overlapping jurisdictional responsibilities) and inadequate local plans to develop the projects.

With respect to state-local relations, similar forms of miscommunication may occur. To avoid such miscommunications, some states clearly define the role of local governments. For instance, some states maintain the tradition of home-rule laws that give local governments great power in emergency management and other policy areas. However, in other cases, the division of responsibilities is less clear. Thus, even if administrative and political elites are committed and view a problem as being serious, confusion or misperceptions about the level of government that is responsible for taking action can lead to inactivity. For example, as Mittler (1988:106) points out, in states like Louisiana, even though key state figures rated hurricane issues as very serious, the state legislature has consistently viewed hurricane and flood control as local problems. Moreover, even though issue salience was high in Louisiana, it did not lead to legislation on nonstructural mitigation because structural approaches had been historically prominent.

In short, to understand whether states will respond effectively to new responsibilities and take charge in mitigation and emergency management, it is necessary to recognize that the 50 American states are extremely diverse in their political, economic, and social environments. States vary across a number of dimensions and some crucial differences exist in terms of the severity of the problem they face, their capacities and abilities to overcome these problems, their commitment to do so, and the attitudes of elite policy makers.

VI. CONCLUSION

With the rising costs and destruction associated with disasters, exacerbated by phenomena such as El Niño, efforts by the federal government to devolve responsibility to the states and to improve state capacities in emergency management have increased. Within this context, mitigation actions in particular are viewed as being extremely important in disaster management. While state spending for emergency management has increased considerably over the last few years, states, nonetheless, vary considerably in their adoption of mitigation measures and in terms of the resources they commit to mitigation funding. In order to understand the effectiveness of federal efforts to encourage states to shoulder greater responsibilities in disaster management, I argue that it is important to take into account various state-level factors, such as the severity of the problem, the ability and capacity of states, and the role of interest groups and of administrative and political elites. These factors are explored in some detail in this paper, and the manner in which they relate to state mitigation policies are analyzed. Using theories of interest group and elite behavior, I find that it is crucial to take these actors into account in understanding the intergovernmental dimensions of emergency and crisis management in the United States.

ACKNOWLEDGMENT

This research was funded in part by the National Science Foundation, NSF Grant No. CMS9813611.

REFERENCES

- Aggarwal, Vinod K., Robert O. Keohane, and David B. Yoffie. (1987). The dynamics of negotiated protection. *American Political Science Review* 81(June), 345(22).
- Alesch, Daniel J. and William J. Petak. (1986). *The Politics and Economics of Earthquake Hazard Mitigation*. Institute of Behavioral Science Monograph No. 3. Boulder: University of Colorado.
- Alston, Lee J., Thrainn Eggertsson, and Douglass C. North (1996). *Empirical Studies in Institutional Change*. Cambridge, U.K.: Cambridge University Press.
- Bauer, Raymond A., Ithiel de Sola Pool, and Lewis Anthony Dexter. (1964). *American Business and Public Policy*. New York: Atherton.
- Beatley, Timothy (1996). *National Trends in Mitigation Policy: An Evolving Framework*. Working Paper #6. Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.
- Beatley, Timothy (1992). *Risk Allocation Policy In the Coastal Zone: The Current Framework and Future Directions*. Washington, D.C.: Office of Technology Assessment, U.S. Congress.
- Beatley Timothy and David Brower (1996). *Hazard Mitigation in Florida Following Hurricane Andrew*. Working Paper #13, Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.
- Berke, Philip R. and Timothy Beatley (1992). *Planning for Earthquakes: Risk, Politics, and Policy*. Baltimore: Johns Hopkins University Press.
- Berke, Philip R. and Charles C. Bohl (1996). *Policy, Capacity, and Commitment in Hazard Mitigation: Intergovernmental Linkages*. Working Paper #7, Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.

- Bernstein, Marver (1955). *Regulating Business by Independent Commission*. Princeton, NJ: Princeton University Press.
- Bowman, Ann O'M., and Richard C. Kearney (1986). *The Resurgence of the States*. Englewood Cliffs, NJ: Prentice Hall.
- Burby, Raymond J. (1985). *Flood Plain Land Use Management: A National Assessment*. Boulder, CO: Westview Press.
- Burby, Raymond J. with Beverly A. Cigler, Steven R. French, Edward J. Kaiser, Jack Kartez, Dale Roenigk, Dana West, and Dale Whittington (1991). *Sharing Environmental Risks: How to Control Governments' Losses in Natural Disasters*. Boulder, CO: Westview Press.
- Burby, Raymond J., Peter J. May, and Robert Paterson (1997). Improving compliance with regulations: choices and outcomes for local government. *Journal of the American Planning Association*. (Forthcoming)
- Cabot, Sandra (1996). "The art of readiness: results of a national survey reveal that many disaster costs are absorbed at the state and local levels." *State Government News*, January, pp. 18-21.
- Chubb, John (1985). The political economy of federalism. *American Political Science Review* 79, 994-1015.
- Cohen, Linda and Roger Noll (1981). The economics of building codes to resist seismic shock. *Public Policy* 29(1), 1-29.
- Cohen, Michael, James March, and Johan Olsen (1972). A garbage can model of organizational choice. *Administrative Science Quarterly* 17(March), 1-25.
- Cyert, Richard M. and James G. March (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ: Prentice-Hall.
- Derthick, Martha and Paul Quirk (1985). *The Politics of Deregulation*. Washington, D.C.: Brookings Institution.
- Donahue, John D. (1997). *Disunited States*. New York, NY: Basic Books.
- Drabek, T.E., Alvin Mushkatel, and T. Kilijarrel (1983). *Earthquake Mitigation Policy: The Experience in Two States*. Boulder, CO: Institute of Behavioral Science, University of Colorado.
- Elazar, Daniel J. (1984). *American Federalism: A View from the States*, 3rd ed. New York: Harper & Row.
- Faber, Scott (1996). *On Borrowed Land: Public Policies for Floodplains*. Cambridge, MA: Lincoln Institute of Land Policy.
- Farazmand, Ali (1994). Organization theory: an overview and appraisal. In Ali Farazmand, (ed.), *Modern Organizations: Administrative Theory in Contemporary Society*. 3-43. Westport, CT: Praeger Press.
- Federal Emergency Management Agency (1998). *Promoting the Adoption and Enforcement of Seismic Building Codes: A Guidebook for State Earthquake and Mitigation Managers*. Washington, DC: FEMA 313.
- Federal Emergency Management Agency (1996a). Proposed Rule for Hazard Mitigation Grant Program, 44 CFR Part 206, RIN Disaster Assistance: Hazard Mitigation, April 1.
- Federal Emergency Management Agency (1996b). *Proposed Rule for Flood Mitigation Assistance Program*. 44, CFR Part 78, RIN 3067-AC45, April 1.
- Federal Emergency Management Agency (1995a). *National Mitigation Strategy*. Washington D.C. January.
- Federal Emergency Management Agency. (1995b). *Mitigation: Cornerstone for Building Safer Communities*. The Report of the Mitigation Directorate for Fiscal Year 1995, Washington, D.C.
- Federal Emergency Management Agency (1994). *A Multi-Objective Planning Process for Mitigating Natural Hazards*. Denver, CO: FEMA Region VIII.
- Federal Interagency Floodplain Task Force (1992a). *Floodplain Management in the United States: An Assessment Report: Vol. 1. Summary Report*. Washington D.C.: FEMA.
- Federal Interagency Floodplain Task Force (1992b). *Floodplain Management in the United States: An Assessment Report: Vol. 2*. Washington D.C.: FEMA.

- Godschalk, David R. (1996). *Assessing Planning and Implementation of Hazard Mitigation Under the Stafford Act: Study Approach*. Working Paper #1, Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.
- Gray, Virginia (1973). Innovation in the states: a diffusion study. *American Political Science Review* 67, 1174-1185.
- Grumm, J. 1971. The effects of legislative structure on legislative performance. In R.I. Hofferbert and I. Starkansky (eds.), *State and Urban Politics*. Boston: Little, Brown.
- Healey, Mark and Philip Berke (1996). *Opinions of State Hazard Mitigation Officers About Mitigation Planning and Implementation: Report of A Survey*. Working Paper #2. Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.
- Hedge, David M. and Michael J. Scicchitano (1993). The states and environmental regulation in the 1980's: a test of the New Federalism. In Fred A. Meyer, Jr., and Ralph Baker (eds.), *State Policy Problems*. 129-145. Chicago: Nelson-Hall.
- Hilgartner, Stephen and Charles L. Bosk (1988). The rise and fall of social problems: a public arenas model. *American Journal of Sociology* 94(1), 53-78.
- Insurance Institute for Property Loss Reduction (1995). *Summary of State Mandated Codes*. Boston: Insurance Institute for Property Loss Reduction. [Now called the Institute of Business and Home Safety (IBHS).]
- Interagency Floodplain Management Review Committee (1994). *Sharing the Challenge: Floodplain Management into the 21st Century*. Washington D.C.: GPO.
- Joint Task Force on the Hazard Mitigation Grant Program (1992a). *Mitigation Grant Program: An Evaluation Report*. National Emergency Management Association, Association of State Floodplain Managers, and FEMA, September.
- Joint Task Force on the Hazard Mitigation Grant Program, (1992b). *The Hazard Mitigation Grant Program: Summary Summaries*. National Emergency Management Association, Association of State Floodplain Managers, and FEMA, September.
- John, DeWitt (1994). *Civic Environmentalism: Alternatives to Regulation in States and Communities*. Washington, DC: Congressional Quarterly Press.
- Kaiser, Edward J. and Mathew Goebel (1996). *Analysis of Content and Quality of State Hazard Mitigation Plans Under Section 409 of the Stafford Act*. Working Paper #3, Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.
- Kingdon, John W. (1984). *Agendas, Alternatives, and Public Policies*. Boston: Little, Brown and Company.
- Kunreuther, Howard and Anne E. Kleffner (1992). Should earthquake mitigation measures be voluntary or required? *Journal of Regulatory Economics* 4, 321-335.
- Lambright, Henry W. (1982). *The Role of States in Earthquake and Natural Hazard Innovation at the Local Level: A Decision-Making Study*. Syracuse, NY: Science and Technology Policy Center.
- Lester, James P., James Fronke, Anne Bowman, and Kenneth Kramer (1983). Hazardous waste politics and public policy: a comparative state analysis. *Western Political Science Quarterly* 36, 258-285.
- Lindblom, Charles (1977). *Politics and Markets: The World's Political Economic Systems*. New York: Basic Books.
- Lowery, David, and Virginia Gray (1995). The Population Ecology of Gucci Gulch, or the Natural regulation of interest groups in the American states. *American Journal of Political Science* 39(February), 29.
- Lowry, William (1992). *The Dimensions of Federalism*. Durham, NC: Duke University Press.
- May, Peter J., Dan Hansen, and Mark Donovan (1995). *State Building Code and Energy Administration: Report to Respondents to a National Survey of State Agencies*. Seattle, WA: Department of Political Science, University of Washington.
- May, Peter J. (1997). State regulatory roles: choices in the regulation of building safety. *State and Local Government Review* 29(2), 70-80.

- Michaels, Sarah (1992). New perspectives on diffusion of earthquake knowledge. *Earthquake Spectra* 8(1), 159-175.
- Mills, C. Wright (1956). *The Power Elite*. New York: Oxford University Press.
- Mittler, Elliot (1988). Agenda-setting in non-structural hazard mitigation policy. In Louise Comfort (ed.), *Managing Disaster: Strategies and Policy Perspectives*. Durham, NC: Duke University Press.
- Mittler, Elliot and Daniel J. Alesch (1996). A reassessment of state roles in disaster mitigation and management. National Science Foundation Grant Proposal: Division of Civil and Mechanical Systems.
- Moe, Terry (1989). The Politics of Bureaucratic Structure. In John E. Chubb and Paul E. Petersen (eds.), *Can the Government Govern?* Washington, DC: Brookings Institution.
- Mushkatel, Alvin H., and Joanne Nigg (1987). Effect of objective risk on key actors' support for seismic mitigation policy. *Environmental Management* 11, 77-87.
- Mushkatel, Alvin H., and Louis F. Wescler (1985). Intergovernmental implementation of building codes with lateral force provisions. *Policy Studies Review* 4, 680-688.
- National Academy of Public Administration (NAPA) (1994) *Review of Actions Taken to Strengthen the Nation's Emergency Management System*. Washington, D.C.: NAPA, March.
- National Emergency Management Association and Council of State Governments. (1996). *NEMA/CSG Report on State Emergency Management Funding and Structures*. Lexington, KY: Council of State Governments, February.
- Nice, David (1994). *Policy Innovation in the States*. Ames, IA: Iowa State University Press.
- Noam, Eli (1982). The choice of governmental level in regulation. *Kyklos: The International Review of Social Sciences*, Fasc. 2, 278-291.
- Noll, Roger and Bruce M. Owen (1983). *The Political Economy of Deregulation: Interest Groups in the Regulatory Process*. Washington, D.C.: American Enterprise Institute for Public Policy Research.
- North, Douglass (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.
- Petak, William J. and Arthur A. Atkisson (1982). *Natural Hazards Risk Assessment and Public Policy: Anticipating the Unexpected*. New York: Springer-Verlag.
- Platt, Rutherford H. (1994). Evolution of coastal hazards policies in the United States. *Coastal Management* 22, 265-284.
- Platt, Rutherford H., Timothy Beatley, and Crane Miller (1991). The folly at Folly Beach and other failings of U.S. coastal erosion policy. *Environment* 33, 7-9, 26-32.
- Rosenthal, Alan (1989). The legislative institution transformed and at risk. In Carl E. Van Horn (ed.), *The State of The States*. 69-101. Washington, D.C.: Congressional Quarterly Press.
- Rosenthal, Alan (1993). The legislative institution: in transition and at risk. In Carl E. Van Horn (ed.), *The State of The States*. 115-148. Washington, D.C.: Congressional Quarterly Press.
- Rosenthal, Alan (1996). The legislature: unraveling of institutional fabric, In Carl E. Van Horn (ed.), *The State of The States*. 108-142. Washington, DC: Congressional Quarterly Press.
- Ringquist, Evan J. (1993). *Environmental Protection at the State Level: Politics and Progress in Controlling Pollution*. Armonk, New York: M.E. Sharpe.
- Rossi, Peter H., James D. Wright and Eleanor Weber-Burdin (1982). *Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation*. New York: Academic Press.
- Stigler, George (1971). The theory of economic regulation. *Bell Journal of Economics and Management Science* 2, 3-21.
- Sylves, Richard T. and William L. Waugh, Jr. (1996). *Disaster Management in the U.S. and Canada: The Politics, Policymaking, Administration, and Analysis of Emergency Management*, 2nd ed. Springfield, IL: Charles C Thomas.
- Teske, Paul (1994). The state of state regulation. In David Rosenbloom and Richard Schwartz, eds. *Handbook of Regulation and Administrative Law*. 117-137. New York: Marcel Dekker.

- U.S. House of Representatives (1994). *Report on the Bipartisan Task Force on Disasters*. Washington, D.C.: Congress of the U.S., December 14.
- U.S. Senate. (1995). *Report on the Senate Task Force on Funding Disaster Relief*, Washington, D.C.: U.S. GPO, March 15.
- U.S. Senate Bipartisan Task Force on Funding Disaster Relief (1994). *Federal Disaster Assistance*. Washington, D.C.: Congressional Research Service, General Accounting Office, November.
- Van Horn, Carl E. (ed.) (1989). *The State of the States*. Washington, D.C.: Congressional Quarterly Press.
- Van Horn, Carl E. (ed.) (1993). *The State of the States*, 2nd ed. Washington, D.C.: Congressional Quarterly Press.
- Van Horn, Carl E. (1996). *The State of the States*, 3rd ed. Washington, D.C.: Congressional Quarterly Press.
- Walker, 1969. The diffusion of innovation among the American States. *American Political Science Review* 63, 880-899.
- Williams, Bruce and Albert Matheny (1984). Testing theories of social regulation: hazardous waste regulation in the American states. *Journal of Politics* 46, 428-458.
- Wilson, James Q. (1989). *Bureaucracy*. New York: Basic Books.
- Young, Kevin, Mark Healey, and David Godschalk (1996). *Opinions of Federal Hazard Mitigation Officers about Mitigation Planning and Implementation: Report of a Survey Working Paper #5*. Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.