Preliminary Reflections on the Law's Reaction to Disasters

Jack B. Weinstein*

Men and women are responsible for events, technology and products that cause masses of people to suffer death, disability and large property losses. These disasters are routine in the sense that they are bound to occur—the only questions are when and how. The disasters we create are growing in severity and frequency. Dangers are enhanced by increases in world population, concentration of people in urban areas, manipulation of the environment, creation of new products through chemical and biological engineering, and closer links between various parts of the world through trade and exchanges of technology.[1] Differences

* Judge, United States District Court for the Eastern District of New York; Adjunct Professor of Law, Columbia University School of Law. This Article is based on remarks made at the National Trial Lawyers Conference in Orlando, Florida, on March 19, 1985. I am grateful for the assistance of David Brittenham, Columbia J.D. 1984, and Linda Gordon, Columbia University School of Law Class of 1986, in preparing this Article.

1. The recent Soviet nuclear plant disaster which evidently has increased ambient radiation over a large area is a dramatic reminder of the potential for catastrophe that exists. As this Article goes to final print, the extent of the world-wide and local damage stemming from this incident is undetermined. According to one study, dangers exist in part because "dramatic scientific and technological advances" have preceded development of appropriate safety data and techniques. LEGISLATIVE DRAFTING RESEARCH FUND OF COLUMBIA UNIVERSITY SCHOOL OF LAW, CATASTROPHIC ACCIDENTS IN GOVERNMENT PROGRAMS 1 (1963) [hereinafter cited as CATASTROPHIC ACCIDENTS]. Although this study considered only accidents in government programs, the same forces apply in the private sector. Commentators have recognized the increased potential for disaster. *See, e.g.*, C. PERROW, NORMAL ACCIDENTS: LIVING WITH HIGH RISK TECHNOLOGIES (1984); AMERICAN BAR ASSOCIATION, SPECIAL COMMITTEE ON THE TORT LIABILITY SYSTEM, TOWARDS A JURISPRUDENCE OF INJURY: THE CONTINUING CREATION OF A SYSTEM OF SUBSTANTIVE JUSTICE IN AMERICAN TORT LAW 11-53—11-63 (1984). Danger may exist where it is least expected—at home or at leisure spots. *Consider* A. ZAMM & R. GANNON, WHY YOUR HOUSE MAY ENDANGER YOUR HEALTH (1980) (discussing the dangers of air pollution in the home); Greer, *Radioactive Gas Alters Lives of Pennsylvannians*, N.Y. Times, Oct. 28, 1985, at A10, col. 2 (discussing the widespread presence of radioactive gas in homes); *Dioxin Detected in Barrels on Upstate Golf Course*, N.Y. Times, Feb. 17, 1985, at 48, col. 1.

Even more enlightening are some of the predictions of future risk. The Nuclear Regulatory Commission recently announced that, mathematically, the odds of a meltdown of a nuclear reactor occurring somewhere in the United States in the next 50 years are 50-50. N.Y. Times, Apr. 17, 1985, at A16, col 1. The amount and nature of risk associated with nuclear operations remains uncertain. *See* Franklin, *Scientists Question Studies on Nuclear Accidents*, N.Y. Times, Feb. 24, 1985, at L21, col. 1 (discussing scientific and industry spon-

in sophistication, economic power and access to government between those creating the new technology and those who are exposed to it also enhance the dangers.[2]

sored reports on the radius around nuclear plants for which emergency evacuation plans are necessary); Broad, *Hiroshima Bomb's Radiation Remains a Scientific Mystery*, N.Y. Times, Aug. 5, 1985, at A1, col. 1 (discussing the difficulties involved in predicting the harm caused by radiation); *Examining How Liability Should be Assessed for Damages Caused by Low-Level Radiation Effects Which Appear as Cancer Years After Exposure: Hearings Before the Comm. on Labor and Human Resources*, 98th Cong., 2nd Sess. 1 (1984). Incidents in the past indicate that concern about future risks is justified. *See U.S. Toxic Mishaps in Chemicals Put at 6,928 in 5 Years*, N.Y. Times, Oct. 3, 1985, at A1, col. 1 (summarizing a government report finding that 6,928 accidents involving toxic chemicals occurred in the United States in the last five years resulting in 135 deaths and nearly 1500 injuries.) *See also infra* notes 9-10 and accompanying text.

It should be noted that scientific advances may also lead to prevention or reduction of technologically-induced disease. For example, gene research may eventually yield a method for identifying people with abnormally great sensitivity to certain chemicals, enabling sensitive individuals to avoid disease by avoiding exposure.

2. The Bhopal leak incident is an example of a situation in which the harm done and the source of the technology causing it are separated. Union Carbide officials in the United States at one time appeared to have accepted the blame for the leak; according to a news report following a press conference, the president of the chemicals and plastics division said he was " 'deeply and personally sorry for the fears and concerns' that the company brought to the community near the . . . plant." N.Y. Times, Aug. 24, 1985, at A1, L29, col. 1 (quoting Robert D. Kennedy). Although Union Carbide has since denied any liability for the leak, it remains true that the presence of the plant in India exposed residents in the area to a certain amount of risk. *See* Adler, *Union Carbide Plays Hardball*, THE AMERICAN LAWYER, Nov. 1985, at 27 (discussing Union Carbide's denial of liability and claim of sabotage). *But see* Noble, *U.S. Agency Cites Carbide for 'Willful Neglect' on Plant Leak*, N.Y. Times, Oct. 3, 1985, at A20, col. 1 (report by the Occupational Safety and Health Administration); *Carbide Leak Highlights Defects in Systems Handling Toxic Matter*, N.Y. Times, Aug. 19, 1985, at A1, col. 1 (discussing opinions of chemical engineers, consultants and other experts on causes of the accident).

The Bhopal incident may have a positive impact by inducing measures to reduce the risks associated with chemical processing. Following the leak, federal officials noted that there were very little data available that could be used to assess risks or to avoid future incidents involving toxic chemical leaks. N.Y. Times, May 20, 1985, at D1, col. 3. In response, the Environmental Protection Agency (EPA) completed and recently published a report on production and use of toxic chemicals in the United States. *See U.S. Names 403 Toxic Chemicals That Pose Risk in Plant Accidents*, N.Y. Times, Nov. 18, 1985, at A1, col. 3. Union Carbide announced at the same time that it had reduced inventories of toxic chemicals by 74 percent. *Id.* at B9. The following day the EPA provided detailed instructions on "how local officials can find highly toxic chemicals in their midst, assess and reduce excessive risks and plan for emergencies." N.Y. Times, Nov. 19, 1985, at B9, col. 1. Industry interests are for the most part supporting new efforts at risk reduction regulation. *See Chemical Industry Braces for Tougher Regulation*, N.Y. Times, Aug. 15, 1985, at A1, col. 4; *Industry Chiefs Back U.S. Curbs on Polluted Air*, N.Y. Times, Mar. 27, 1985, at A1, col. 5.

Although such efforts will undoubtedbly reduce risks in the chemical industry, it is significant that after the Bhopal tragedy, another potentially disastrous leak occurred at a Union Carbide facility in West Virginia. *Toxic Cloud Leaks at Carbide Plant in West Virginia*, N.Y. Times, Aug. 15, 1985, at A1, col. 6. It is reasonable to assume that such incidents

For the purpose of this discussion we will put aside the ultimate disasters such as war, particularly nuclear war, and such horrors as famine and pestilence—though even the latter are now probably attributable as much to human folly as to nature's occasional cruelties.[3] This discussion is concerned with disasters for which a legal entity may be found financially responsible.

Disasters are of particular concern to lawyers[4] because we, like the law, are dedicated to the general proposition that people should be compensated when they are harmed by others. Our goal is to provide prompt and full payment to those who are harmed, by those who caused the harm, while minimizing the overall costs to the system .[5] We fall far short of this goal in connection with many disasters. Compensation is delayed, expensive and erratic.[6]

cannot be completely avoided no matter what precautions are taken. Our legal system must be prepared to handle future disasters of this type.

3. For a discussion on human involvement in natural disasters see A. WIKMAN AND L. TIMBERLAKE, NATURAL DISASTERS: ACTS OF GOD OR ACTS OF MAN (1985); *Researchers Predicting Spread of Famine in Africa*, N.Y. Times, Feb. 18, 1985, at A8, col. 4 (discussing a report concluding that the famine in Ethiopia may in part be caused by the pressure of human activity).

4. There is a growing collection of legal literature on the litigation of disasters. *See, e.g.*, Huber, *Safety and the Second Best: The Hazards of Public Risk Management in the Courts*, 85 COLUM. L. REV. 277 (1985) (general discussion on how mass torts should be dealt with in the legal system); Epstein, *The Legal and Insurance Dynamics of Mass Tort Litigation*, 13 J. LEGAL STUDIES 475 (1984); McGovern, *Management of Multiparty Toxic Tort Litigation: Case Law and Trends Affecting Case Management*, 19 FORUM 1 (1983); Note, *Class Actions and Mass Toxic Torts*, 8 COLUM. J. ENVTL. L. 269 (1982); *cf.* Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281 (1976).

Following completion of this manuscript there was published an excellent text on multistate litigation and the legal ramifications of the increase in mass tort litigation. V. SCHWARTZ, P. LEE & K. KELLY, GUIDE TO MULTISTATE LITIGATION (1985). I have not cited it in this Article on the assumption that the interested reader will have the volume available for general reference.

5. The need to reduce the transaction costs attributed to litigation is acute. The cost of asbestos litigation is a well-known example. A recent General Accounting Office report prepared for Senator Inouye and Representative Murphy found that district and appellate courts expended an estimated $10.1 million to process asbestos-related cases during the fiscal year 1984 and that the Department of Justice expended $5.2 and $5.9 million in fiscal years 1983 and 1984 defending asbestos suits. Letter from William J. Anderson, Director, to The Honorable Daniel K. Inouye and The Honorable Austin J. Murphy (Sept. 19, 1985) (on file in the office of the *Columbia Journal of Environmental Law*). *See also* J. KAKALIK, P. EBENER, W. FELSTINER, & M. SHANLEY, COSTS OF ASBESTOS LITIGATION (1983) and J. KAKALIK, P. EBENER, W. FELSTINER, G. HAGGSTROM, & M. SHANLEY, VARIATIONS IN ASBESTOS LITIGATION COMPENSATION AND EXPENSES (1984) (both prepared by The Rand Corporation Institute for Civil Justice).

6. Love Canal residents are only now receiving compensation for damages that occurred over nine years ago. *See Ex-Love Canal Families Get Payments*, N.Y. Times, Feb. 20,

The question is: given our current legal, technical, social and political development, can we handle claims arising from mass tort disasters more effectively? The power exists: the federal

1985, at B1, col. 2; *Settling Some Love Canal Debts*, Newsday, Feb. 4, 1985, at 7, col. 1. In addition, the settlement left uncompensated many who believe they have been injured. Although the government purchased a large amount of property that was within the "disaster area," some residents a few feet from the boundary received no compensation. *Forgotten Victims of Love Canal*, Newsday, Feb. 28, 1985, at 2, col. 1. Others were excluded from the personal injury settlement. *Id.*

Personal injury suits after a well-known fire disaster took over eight years to settle. *After 8 Years, A Complex Case Comes to an End*, Nat'l L.J., Aug. 19, 1985, at 6, col. 1 (settlement of the Beverly Hills Supper Club Fire).

In many cases there may be no compensation available for the type of injury alleged by the plaintiff. *See* Note, *Tort Law—Emotional Distress and Wrongful Life Claims in DES Litigation: Injury Without Remedy: Payton v. Abbott Laboratories*, 6 W. NEW ENG. L. REV. 1037 (1984).

The Superfund 301(e) Study Group reviewed existing statutory and common law compensation remedies for injuries and damages stemming from hazardous waste. In the course of the study group's evaluation, it noted that:

> [although] the existing legal remedies and actions may be adequate[,] in spite of existing barriers, to deal with small claims . . . [they are] inadequate . . . to deal with the possibility of mass torts, or multiple exposures, and with claims of hundreds of victims, each of whom suffered a few thousand dollars in damages, unless procedures are found, not readily available at present, to join or combine such small claims.

SUPERFUND SECTION 301(E) STUDY GROUP, REPORT TO THE CONGRESS ON VICTIM COMPENSATION PURSUANT TO SECTION 301(E) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980, PUB. L. NO. 96-510, 94 STAT. 2767, at 193 (1982) [hereinafter cited as STUDY GROUP PROPOSAL] (all page numbers refer to the numbers at the tops of the pages in the STUDY GROUP PROPOSAL).

Other commentators assert that the tort system itself does not provide an adequate remedy. *See* Sugarman, *Doing Away with Tort Law*, 73 CALIF. L. REV. 558 (1985) ("the straightforward case against tort law . . . [is] that the costs of the tort system outweigh its benefits"). Consider these points:

> A . . . possible improvement [in the compensation system] would be the establishment of alternatives to the traditional tort remedy. Such alternative remedies should be developed at least for mass-disaster tort situations and should be considered for broader classes of toxic tort situations as well. While proposed alternatives vary widely, four key common threads emerge.
>
> * Eligibility criteria for compensation, including causation requirements, should be relatively unrestrictive.
> * Payment levels to individual plaintiffs should be lower than those under the traditional tort system.
> * Individual claims should be resolved through administrative decision or private settlement mechanisms, without case-by-case adjudication in the courts.
> * Where possible, difficult problems of causation should be avoided.

THE INSTITUTE FOR HEALTH POLICY ANALYSIS, GEORGETOWN UNIVERSITY MEDICAL CENTER, CAUSATION AND FINANCIAL COMPENSATION 10 (1986) (Final Report of the Conference Panel: Conference on Causation & Financial Responsibility, Feb. 20-21, 1985). A recent report by the American Bar Association Special Committee on the Tort Liability System found, however, that the tort system is "vital and responsive" and that "the adversarial process . . . produces a consistently high quality of substantive justice." AMERICAN BAR ASSOCIATION, *supra* note 1, at 13-1.

government can legislate in problem areas as *Garcia v. San Antonio Metropolitan Transit Authority*[7] demonstrated. But whether and how federal—or state—power should be exercised in the area of disaster claims management is not at all clear.

The purpose of this Article is to help pose this issue more precisely and perhaps aid in formulating ways of addressing it. First, from a litigator's point of view, I shall describe a rudimentary typology of disasters and some of the problems the legal system has had with each. Then, from a judge's point of view, I will indicate what I believe is required to manage litigations arising from mass torts. I then shall briefly describe some of the many bits and pieces of judicial procedure, common law practice and legislation we have developed in meeting disasters in the past and I will offer some thoughts on how those tools can be improved to deal more effectively with the problems of the future. Finally, I shall offer some proposals for going forward with the inquiry.

I conclude that, in dealing with disasters, a national system of health and disability insurance for all is desirable. Absent such a thorough change, the law can handle small and medium-scale disasters such as airplane crashes with relatively modest changes in substance and procedure. Massive disasters, such as those caused by asbestos, mandate major changes in substance and practice, such as the creation of a National Disaster Court and the use of international tribunals. Classification of disasters either for purposes of analysis or for the purpose of triggering the operation of special substantive or procedural rules is to a large degree arbitrary. For example, whether and for what purposes events such as the deaths and injuries resulting from the gas leak at Bhopal, India, should be treated as mass disasters rather than normal tort cases are largely matters of judgment.

Although I emphasize procedure and practice, I acknowledge the primacy of tort theory in deciding how disastrous events

7. 105 S. Ct. 1005 (1985). In overruling National League of Cities v. Usery, 426 U.S. 833 (1976), Justice Blackmun attacked the attempt to limit federal action in areas termed to be "traditional governmental functions" of the states, stating that "the fundamental limitation that the constitutional scheme imposes on the Commerce Clause to protect the 'States as States' is one of process rather than one of result." 105 S. Ct. 1019. As long as the "built in restraints that our system provides through state participation in federal governmental action" remain untouched, the power of the federal government to act appears to be limited only by such "process" considerations. *Id.*

should be treated by adjudicative and legislative bodies.[8] Questions such as: who should bear the risks, how the risks should be shared or shifted, and what role insurance should play, are central to any sound analysis. Traditional tort theories provide some answers to these questions. There are times, however, when practical administrative problems and costs may overwhelm present substantive theory. In some respects, a mass tort disaster presents this situation.

I. TYPES OF DISASTERS

A. *Clear Cause—Single Event—Injuries Proximate in Time and Space.*

Disasters may result from a cataclysmic event in which the connection between the injury and the event is clear. Typical of this category are airplane crashes, leaks of poisonous gas from industrial plants like that in Bhopal, and explosions at petrochemical plants and storage facilities like that in Mexico City.[9] The Beverly Hills Supper Club fire and the Kansas City Skywalk collapse might also be placed in this category.[10]

In this class of disasters there is usually no serious question about what injuries resulted from the event. Causation in the broad sense is obvious. Even though the question of why the calamity occurred may be unanswered, and may determine the ultimate assessment of financial responsibility for damages, there is no doubt that someone should pay.

8. Procedural changes should be evaluated in light of their ability to satisfy the traditional goal of tort law: "to adjust . . . losses, and to afford compensation for injuries sustained by one person as a result of the conduct of another." W. PROSSER AND W. KEETON, HANDBOOK ON THE LAW OF TORTS 6 (5th ed. 1984). *See also* STUDY GROUP PROPOSAL, *supra* note 6, at 81-109 (discussion of traditional tort doctrines and their applicability to victim compensation).

9. The last year was unprecedented in the number of air disasters with fatalities that occured. *Consider, e.g., Jetliner Crashes with 524 Aboard in Central Japan,* N.Y. Times, Aug. 13, 1985, at A1, col. 6; *329 Lost on Air India Plane After Crash near Ireland; Bomb is Suspected as Cause,* N.Y. Times, June 24, 1985, at A1, col. 4. Over 2,000 people died, and about 200,000 people were injured on December 3, 1984, when a cloud of methyl isocyanate gas leaked from a Union Carbide pesticide plant in Bhopal, India. N.Y. Times, Feb. 3, 1985, at A1, col. 1. Over 300 people were killed in the Mexico City suburb of Tlalnepantla when a storage area for liquefied gas exploded in flames in a slum area on November 20, 1984. N.Y.Times, Nov. 21, 1984, at 8, col. 3.

10. On May 28, 1977, the Beverly Hills Supper Club in Southgate, Kentucky, burned, causing 164 deaths. N.Y. Times, July 3, 1977, at 16, col. 1. On July 17, 1981, two walkways at the Hyatt Regency Hotel in Kansas City, Missouri, collapsed, injuring at least 200 and causing 113 deaths. N.Y. Times, July 18, 1981, at A1, col. 1.

In order to facilitate compensation, some serious legal questions may have to be addressed. For example, a decision on choice of substantive law may be required if the nationality or state citizenship of those injured or responsible is different from the place of injury or the forum of adjudication. The present system answers this sort of question with difficulty.

The issue of government liability has also arisen in this category of disasters. The 1947 Texas City disaster, in which ships containing ammonium nitrate fertilizer exploded, is a well-known example. The 273 suits brought against the government on behalf of the 8,000 persons injured were dismissed because of limitations in the Federal Tort Claims Act based on the government's prerogative to immunize itself from suit.[11] Such limitations seem difficult to justify. In their study, *Catastrophic Accidents in Government Programs*,[12] Professors Rosenthal, Korn, and Lubman call the Texas City case a "discouraging example" of how these matters should not be handled.[13] It is congressional policy to provide compensation for a peacetime incident involving a United States nuclear-powered ship.[14] Why not for any government ship? Why not for any government-caused disaster?

Some disasters in this category, such as major airplane crashes, have been handled relatively effectively by our tort system.[15] Lawyers have utilized consolidation procedures, class actions, collateral estoppel techniques and informal agreements among themselves in order to speed resolution of claims.[16] Neverthe-

11. Dalehite v. United States, 346 U.S. 15 (1953).

12. *See* CATASTROPHIC ACCIDENTS, *supra* note 1.

13. *Id.* at 3. In response to the *Dalehite* decision, Congress enacted the Texas City Disaster Relief Act, Pub. L. No. 84-378, 69 Stat. 707 (1955). The Act provided funds limited to $25,000 per claim. Beginning eight years after the catastrophe occurred, $17 million dollars was eventually paid out. Actual damages were estimated to be between $60 million and "billions" of dollars. CATASTROPHIC ACCIDENTS, *supra* note 1, at 4.

14. 42 U.S.C. § 2210(1) (1982 & Supp. I 1983).

15. Recent air crashes provide examples of effective litigation management. *See, e.g., In re* Air Crash in Bali Indonesia on Apr. 22, 1974, 684 F.2d 1301 (9th Cir. 1982); *In re* Air Crash Disaster at Washington, D.C. on Jan. 13, 1982, 559 F. Supp. 333 (D.D.C. 1983); Schulhof v. Northeast Cellulose, 545 F. Supp. 1200 (D. Mass. 1982).

16. For a discussion of when consolidation for trial of actions for personal injuries, death or property damages arising out of the same accident is available, see Annot., 68 A.L.R. 2d 1372 (1959). Consolidation is usually permitted when there are different plaintiff parties but common defendants and no party's rights are prejudiced. *Id.* at 1384-5.

less, in many cases compensation remains uncertain, expensive and delayed.[17]

B. *Clear Cause—Multiple Events—Injuries Nonproximate in Place.*

Some mass torts may result from a single product manufactured by one or a small group of producers where the link between the damage to any individual and the product is highly probable. In this category, widespread but precise injuries are usually revealed shortly after the event. The most notorious case involved the drug thalidomide. It was produced by a relatively

Consolidation may not always be allowed. *Cf.* Trangrud, *Joinder Alternatives in Mass Tort Litigation*, 70 CORNELL L. REV. 779 (1985).

For examples of management of mass accidents through class actions, *see* Hernandez v. Motor Vessel Skyward, 61 F.R.D. 558 (S.D. Fla. 1973), *aff'd mem.*, 507 F.2d 1278 (5th Cir. 1975) (food poisoning); Bentkowski v. Marfuerza Compania Maritima, 70 F.R.D. 401 (E.D. Pa. 1976) (food poisoning); *In re* Gabel, 350 F. Supp. 624 (C.D. Cal. 1972) (airplane crash); American Trading & Prod. Corp. v. Fischbach & Moore, Inc., 47 F.R.D. 155 (N.D. Ill. 1969) (fire).

Although use of the class action device would alleviate many procedural difficulties, it may not always be available. For example, in the Kansas City Skywalk incident, the mandatory class action certified by the lower court was decertified by the appellate court under the Anti-Injunction Act, 28 U.S.C. § 2283 (1982). *In re* Federal Skywalk Cases, 680 F.2d 1175 (8th Cir. 1982), *cert. denied sub nom.* Stover v. Rall, 459 U.S. 988 (1982). Following decertification, however, voluntary classes were certified in state and federal court. *In re* Federal Skywalk Cases, 97 F.R.D. 380 (W.D. Mo. 1983). *But see In re* Asbestos School Litigation, 104 F.R.D. 422 (E.D. Pa. 1984) (class action found appropriate in an asbestos property litigation). *See generally* Comment, *Federal Mass Tort Class Actions: A Step Toward Equity and Efficiency*, 47 ALB. L. REV. 1180 (1983); Comment, *Class Certification in Mass Accident Cases Under Rule 23(b)(1)*, 96 HARV. L. REV. 1143 (1983); Note, *supra* note 4; Comment, *The Use of Class Actions for Mass Accident Litigation*, 23 LOYOLA L. REV. 383 (1977).

Offensive use of collateral estoppel will be allowed unless the plaintiff asserting the doctrine "could easily have joined in the earlier action" or application of the doctrine "would be unfair to . . . [the] defendant." Parklane Hosiery Co. v. Shore, 439 U.S. 322, 331 (1979). *See also* United States v. United Air Lines, 216 F. Supp. 709 (D. Nev. 1962) (offensive use of collateral estoppel allowed in wrongful death actions following an air disaster), *aff'd sub nom.* United Air Lines v. Weiner, 335 F.2d 379 (9th Cir. 1964), *cert. denied*, 379 U.S. 951 (1964); Stoddard v. Ling-Temco-Vought, Inc., 513 F. Supp. 335 (C.D. Cal. 1981); Maryland v. Capital Air Lines, 267 F. Supp. 298 (D. Md. 1967); Hart v. American Airlines, 61 Misc. 2d 41, 304 N.Y.S.2d 810 (Sup. Ct. 1969); Desmond v. Kramer, 96 N.J. Super. 96, 232 A.2d 470 (Law Div. 1967). *See generally* Gunn, *The Offensive Use of Collateral Estoppel in Mass Tort Cases*, 52 MISS. L.J. 765 (1982); Note, *Erie and the Preclusive Effect of Federal Diversity Judgments*, 85 COLUM. L. REV. 1505 (1985).

17. For example, a number of articles have been published on the difficulties that Bhopal plaintiffs are now facing. *See, e.g., A Second Bhopal Disaster*, Nat'l L.J., May, 13, 1985, at 13; *India State Plans to File U.S. Suits on Gas Leak*, N.Y. Times, Dec. 31, 1984, at L4, col. 1; *The Big Lawsuits: Will They Be Tried in the U.S.*, N.Y. Times, Dec. 14, 1984, at A10, col. 2. *See also Catastrophe at Bhopal: A Challenge to the Law*, 3 WEST'S INT'L L. BULL. 7 (1985); Galanter, *Legal Torpor: Why So Little Has Happened in India After the Bhopal Tragedy*, 20 TEX. INT'L L.J. 273 (1985). *See also* discussion *supra* note 6.

few European chemical plants and caused an unusual syndrome of birth defects all over the world.[18] A few of the infants might have been born with the same birth defects even if their mothers had not taken the drug, but in the majority of cases proof of causation was not a difficult problem once the necessary scientific studies had been made. Some of the claims brought by toxic shock syndrome victims against tampon manufacturers[19] and the cases involving intrauterine contraceptive devices[20] may also fall into this category.

The legal system has not been wholly successful in its treatment of this class of cases, in part because of difficulties in establishing causation and in part because of limitations on consolidation and other litigation management devices.[21] Variations in law among forums have made these problems particularly vexing.

C. *Unclear Cause—Multiple Events—Injuries Nonproximate in Time and Place.*

Serious causation questions may arise in cases in which an individual suffers an injury which is common to the general population but which may be the result of exposure to a particular product. Compensation must turn on whether the person would have sustained the injury had there been no exposure. Such serious causation questions have been litigated in the radiation cases arising from above-ground test explosions of nuclear devices by the United States Army, with some plaintiffs establishing causa-

18. For a general discussion of thalidomide, see H. TEFF & C. MUNROE, THALIDOMIDE: THE LEGAL AFTERMATH (1976).

19. *See* Ellis v. International Playtex, 745 F.2d 292 (4th Cir. 1984); Kehm v. Proctor & Gamble, 724 F.2d 613 (8th Cir. 1983); Farnsworth v. Proctor & Gamble, 101 F.R.D. 355, (N.D. Ga. 1984), *aff'd*, 758 F.2d 1545 (11th Cir. 1985); *In re* Rely Tampon Products Liability Litigation, 533 F. Supp. 1346 (J.P.M.D.L. 1982).

20. *See In re* Northern District of California, Dalkon Shield I.U.D. Products Liability Litigation, 693 F.2d 847 (9th Cir. 1982) *cert. denied sub nom.* A.H. Robins Co. v. Abed, 459 U.S. 1171 (1983). *See also* the swine flu cases, *e.g.*, Cardillo v. United States, 622 F. Supp. 1331 (D. Conn. 1984).

21. Class actions, for example, are often not available in this category. In the *Dalkon Shield* litigation, the trial court certified a mandatory nationwide class. *In re* Northern District of California, Dalkon Shield I.U.D. Products Liability Litigation, 521 F. Supp. 1188, *modified*, 526 F. Supp. 887 (N.D. Cal. 1981). The United States Court of Appeals for the Ninth Circuit reversed the class certification, finding too many factual differences among the parties with respect to injuries and damages. 693 F.2d 847 (9th Cir. 1982), *cert. denied sub nom.* A.H. Robins Co. v. Abed, 459 U.S. 1171 (1983).

tion and some failing to do so.[22] Some would put in this category (as well as in category D, below) claims of lung cancer victims that their illnesses resulted from asbestos or tobacco exposure.[23]

Scientific methods of determining causation for purposes of diagnosis and medical treatment are useful, but not easily transferable to the causal problems the law faces in litigation.[24] Plaintiffs in these cases meet serious obstacles in attempting to prove causation and in overcoming other substantive and procedural barriers, while courts deal with difficult questions in determining the admissibility of and the weight that should be given to causation evidence.[25]

22. *See* Allen v. United States, 588 F. Supp. 247 (D. Utah 1984) (awarding recovery to some but not all civilian radiation plaintiffs). *See generally* Swartzman and Christoffel, *Allen v. The United States of America: The "Substantial" Connection Between Nuclear Fallout and Cancer*, 1 TOURO L. REV. 29 (1985).

23. *See* Yandle v. PPG Industries, 65 F.R.D. 566 (E.D. Tex. 1974) (class treatment denied for 135 former employees of an asbestos manufacturer partly because the varying degrees of exposure created difficulties in proving causation). *See also* Reserve Mining v. United States, 498 F.2d 1073 (8th Cir. 1974) (difficulties in determining the threat posed by asbestos led to the staying of an injunction).

Injury claims based on tobacco smoking have also raised difficult causation issues. *See* Pritchard v. Liggett & Meyers Tobacco Co., 370 F.2d 95 (3d Cir. 1966) *cert. denied*, 386 U.S. 1009 (1967); Lartigue v. R.J. Reynolds Tobacco Co., 317 F.2d 19 (5th Cir.) *cert. denied*, 375 U.S. 865 (1963); *Is the Tobacco Industry Now Vulnerable to Lawsuits*, Wash. Post, July 28, 1985, at D1, col. 4; *Antismoking Climate Inspires Suits by the Dying*, N.Y. Times, Mar. 15, 1985, at B1.

24. The following discussion from a paper prepared by an expert at the Georgetown University-based Institute of Health Policy Analysis illustrates the scientific perspective on causation:

> One can only rarely identify a specific, direct chain of biological events leading from an exposure to a toxic agent to a disease. The scientific concept of "cause" for the diseases associated with toxic torts, therefore, must necessarily be more abstract than one is accustomed to in engineering where "cause and effect" can be determined with relative precision and the chain of events traced directly. Causation is instead a statistical association in which an alteration in the frequency of the putative cause will be accompanied by a change in the frequency of the disease. Because the concept of cause is a statistical association, it is between categories of events and not individual cases.

P. HARTER, THE DILEMMA OF CAUSATION IN TOXIC TORTS i-ii (1985) (Institute for Health & Policy Analysis, Monograph No. 1010).

Harter suggests the following criteria for determining causation: (1) strength of association, (2) consistency of association, (3) correct timing, (4) specificity of association, (5) biological gradient, (6) biological plausibility, and (7) prevalence and exposure. *Id.* at ii-iii. *See also* Jacob, *Of Causation in Science and Law: Consequences of the Erosion of Safeguards*, 40 BUS. LAWYER 1229 (1985); Markey, *Science and Law: A Dialogue on Understanding*, A.B.A.J., Feb. 1982, at 154. The experience of courts facing difficult science-law questions when reviewing agency decisions are also relevant. *See* Davis, *The "Shotgun Wedding" of Science and Law: Risk Assessment and Judicial Review*, 10 COLUM. J. ENVTL. L. 67 (1985).

25. *See* Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 851 (1984); Black & Lilienfeld, *Epidemiologic Proof in Toxic*

D. *Unclear Cause—Multiple Events—Injuries Nonproximate in Time and Place—Identities of Both Producers and Injured Unclear.*

We can expect more situations in which there appears to be an increased incidence of a fairly widespread disease, but it is not clear which, if any, persons suffer from it as a result of exposure to a particular toxic substance, and it is also not clear which of many producers is responsible for any particular injury. This is the situation that may exist in the DES cases, in many hazardous waste injury cases and in cases where workers have moved from job to job and have been exposed to toxic substances over many years.[26]

Tort Litigation, 52 FORDHAM L. REV. 732 (1984); Note, *Proving Causation in Toxic Torts Litigation,* 11 HOFSTRA L.J. 1299 (1983). *See also* FINAL REPORT OF THE ROYAL COMMISSION ON THE USE AND EFFECTS OF CHEMICAL AGENTS ON AUSTRALIAN PERSONNEL IN VIETNAM (July 1985) (nine volume report finding no causal connection between exposure to Agent Orange and other chemical agents and any medical problems of Australian Vietnam veterans and their families).

Another commentator has noted that "[e]stablishing that a relationship exists between observed adverse health effects and chemical exposure is somewhat more complex than providing evidence that a future risk of injury/disease is associated with such exposures." Highland, *Establishing a Relationship Between Chemical Exposure and the Future Risk of Disease or Current Health Damage,* in 1984 HOFSTRA HAZARDOUS WASTE LITIGATION SYMPOSIUM 175.

The need for basic data in the causation area is acute. Once such data have been obtained, we must make certain it is available to those who need it to resolve causation disputes. For an interesting discussion of this topic see COMMITTEE ON NATIONAL STATISTICS, SHARING RESEARCH DATA (1985) (available from National Academy Press), summarized in National Research Council, *News Report,* June 1985, at 15.

26. *See, e.g.*, Bethlehem Mines Corp. v. Massey, 736 F.2d 120 (4th Cir. 1984) (black lung benefits); Rutledge v. Tultex Corp., 308 N.C. 85, 301 S.E.2d 359 (1983) (cotton mill worker); Brawn v. St. Regis Paper, 430 A.2d 843 (Me. 1981) (paper mill, 38 years employment); Swink v. Cone Mills, Inc., 65 N.C. App. 397, 309 S.E.2d 271 (1983) (cotton dust).

See also the discussion of the indeterminate plaintiff problem in one of the Agent Orange opinions. *In re* "Agent Orange" Product Liability Litigation, 597 F. Supp. 740, 833-37 (E.D.N.Y. 1985).

The majority of the causation problems in this area arise in product liability cases. One commentator has noted that

> [t]hese hard cases [where cause in fact is difficult to prove] frequently involve products alleged to have caused some disease and usually have at least four common characteristics. There is a long latency period, often the better part of a lifetime, before the disease becomes manifest. There are a number of potential causes for the disease. The disease may occur without exposure to the defendant's product. Perhaps because of these first three characteristics, the most troublesome common characteristic of these cases is that there may be a genuine scientific controversy about whether the product in question can cause the disease at all.

Jacobs, *supra* note 24, at 1232. Jacobs goes on to suggest that causation may be a policy decision best decided in a nonjudicial forum. *Id.* at 1241. *See also* Black & Lilienfeld, *supra* note 25.

These problems are compounded when there is a long latency period between exposure and the manifestation of symptoms. During this extended period, other factors may arise that could cause the disease, complicating the problem of proving causation. Insurance carriers and producers may change over the years, creating questions of who is responsible and who should pay.

Although some courts have used novel theories to allow plaintiffs to recover,[27] the law has had serious difficulties with these cases absent special legislation[28] or broad interpretation of workers' compensation statutes.[29] Moreover, in some states, statutes of limitations may bar a tort action before claimants even know that an injury has occurred.[30]

27. For example, in Sindell v. Abbott Laboratories, 26 Cal.3d 588, 607 P.2d 924, *cert. denied*, 449 U.S. 912 (1980), the California Supreme Court shook potential product liability defendants by permitting liability for DES injuries to be assessed on the basis of percentage of market share when the plaintiff was unable to prove which defendant caused the injury complained of. *But see* Murphy v. Squibb, slip. op. 85-31970 (Cal. Dec. 30, 1985) (refusing to apply *Sindell* to a case where plaintiff named as a defendant only one manufacturer with a ten percent share of the market).

For an overview of enterprise liability and other forms of alternative liability, see STUDY GROUP PROPOSAL, *supra* note 6, at 53-64. *See also In re* "Agent Orange" Product Liability Litigation, 597 F.Supp. at 820-828.

28. Legislation has occasionally allowed injured parties to bypass the litigation process. For example, the Black Lung Benefits Act, 30 U.S.C. §§ 901-962 (1982), provides benefits to miners totally disabled by pneumoconiosis. The program is financed through federal funds, state workers' compensation and direct payments by mine operators and other sources. *See also* Usery v. Turner Elkhorn Mining Co., 428 U.S. 1 (1975) (upholding the Act against challenges to its retroactive aspects, presumptions and evidentiary rules). *See generally* E. GELLHORN, THE "BLACK LUNG" ACT: AN ANALYSIS OF LEGAL ISSUES RAISED UNDER THE BENEFIT PROGRAM CREATED BY THE FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969 AS AMENDED (1981) (available from the National Judicial Center).

29. Where broad interpretation is allowed, many plaintiff employees can circumvent workers' compensation limits by bringing a product liability action. *See, e.g.*, Waldrop v. Visitron Corp., 391 So. 2d 1274 (La. Ct. App. 1980); Robards v. Kantzer's Estate, 98 Mich. App. 414, 296 N.W. 2d 265 (1980). *See also* Lynch, *The Clash between Strict Products Liability Doctrine and the Workers' Compensation Exclusivity Rule: The Negligent Employer and the Third-Party Manufacturer*, 50 INS. COUNS. J. 35 (1983). An issue then arises whether the product manufacturer may receive contribution from the employer. Some courts have allowed such recovery, raising concerns that workers' compensation may be undermined by allowing indirectly what cannot be accomplished directly. *See, e.g.*, Skinner v. Reed-Prentice Division Package Machinery Co., 70 Ill. 2d 1, 374 N.E.2d 437 (1977), *cert.. denied*, 436 U.S. 946 (1978). *See also* Larson, *Third-Party Action over against Workers' Compensation Employer*, 1982 DUKE L.J. 483; A. MURPHY, K. SANTAGATA & F. GRAD, THE LAW OF PRODUCT LIABILITY 72 (1982).

30. Statutes of limitations for many injuries may begin running when a cause of action "accrues" or when the injury occurs, rather than when the victim discovers or should have discoved the injury. The meaning of "accrual" and "injury" often have been left to the courts, creating a multitude of differing interpretations in the various states. *See* White v.

II. JURISDICTIONS IMPLICATED.

The problems in dealing with these cases may be exacerbated depending upon the number and kinds of jurisdictions implicated.

A. *Intrastate.*

The simplest disaster is one involving events and parties from only one state. The substantive and procedural law in such a case is uniform. There may be need for some procedural and substantive changes, such as further utilization of statewide consolidation of cases[31] or more realistic statute of limitations rules,[32] but these can be provided by conventional methods of law reform at the state level.

Nonetheless, these conventional means cannot address all potential problems. Even when a large fire[33] or the collapse of a part of a building[34] appears to a layman to be intrastate in character, concurrent federal and state court jurisdiction may lead to cases being brought in both court systems, creating serious management problems. The relatively simple case of a liquefied gas tank explosion in Staten Island, New York, for example, ended up in federal court as well as in a number of New York state courts.[35]

Johns-Manville Corp., 103 Wash. 2d 344, 693 P.2d 687 (1985) (accrual when the act or omission occurs); Steinhardt v. Johns-Manville Corp., 54 N.Y.2d 1008, 430 N.E.2d 1297, 446 N.Y.S.2d 244 (1981), *cert denied, appeal dismissed sub nom.* Rosenberg v. Johns-Manville Sales Corp., 456 U.S. 967 (1982) (accrual at time of last exposure to asbestos); Garrett v. Raytheon Co., 368 So. 2d 516 (Ala. 1979) (cancer symptoms appeared in 1975; accrual at time of last exposure to radiation in 1957). For a summary of state statutes of limitations, see STUDY GROUP PROPOSAL, *supra* note 6, at 43-45. *See also In re* "Agent Orange" Product Liability Litigation, 597 F.Supp. at 799-816; Finz, *Changing the Statute of Limitations—A Case of Simple Justice,* N.Y.L.J., Mar. 11, 1985, at 1, col. 3; Annot., 1 A.L.R. 4th 119 (1980 & Supp. 1985) (collected cases on when statute of limitations begins to run as to a cause of action for development of latent industrial or occupational disease); Annot., 91 A.L.R. 3d 991 (1979 & Supp. 1985) (collected cases on running of statute of limitations on product liability claims against manufacturers as affected by plaintiffs' lack of knowledge of defect allegedly causing personal injury or disease).

31. Some states already have coordination statutes. *See, e.g.,* CAL. CIV. PROC. CODE §§ 404.1-404.8 (West 1973 & Supp. 1986).

32. *See supra* note 30 and accompanying text.

33. *See* Coburn v. 4-R Corp., 77 F.R.D. 43 (E.D. Ky. 1977) (Beverly Hills Supper Club fire).

34. *See In re* Federal Skywalk Cases, 680 F.2d 1175 (8th Cir.), *cert. denied sub nom.* Stover v. Rau, 459 U.S. 988 (1982) (Kansas City Hyatt Regency Skywalk collapse).

35. *See* ERIA v. Texas Eastern Transmission Corp., 377 F. Supp. 344 (E.D.N.Y. 1974).

B. *Interstate.*

Most disasters, particularly those for which causal attribution is difficult, involve people and institutions from many states. The cases may be initiated in state and federal courts all over the country and the applicable substantive law and procedural practice may vary enormously. The Bendectin and asbestos litigations fall into this category.[36]

C. *International.*

Increasingly, disasters cross national boundaries. Technology and trade send dangerous substances across national lines. Multinational companies have alter egos in many countries. What laws apply, where the suits are to be brought and what country's standards of compensation are to be used are all important questions.

The Bhopal disaster presents one example of a multinational problem. In Bhopal, technology and management were exported by a United States corporation, leading to mass injury in India and to many unanswered legal questions.[37]

36. For an interesting review of the Bendectin litigation, see *Bendectin Battle*, LAW SCOPE, May 1985, at 25. Much has been written about the difficulties courts have had with asbestos litigation. *See* NATIONAL CENTER FOR STATE COURTS, JUDICIAL ADMINISTRATION WORKING GROUP ON ASBESTOS LITIGATION (1984) (Final Report With Recommendations); Comment, *An Examination of Recurring Issues in Asbestos Litigation*, 46 ALBANY L. REV. 1307 (1982); Brodeur, *Annals of Law—Asbestos*, The New Yorker (June 10, 17, 24, July 1, 1985).

> The Federal Judicial Center has also focused much attention on asbestos litigation: Alternatives to trial continue to absorb the attention of federal judges confronted with extremely high caseloads. Nowhere was this more dramatically exhibited than in a Center-sponsored meeting . . . of judges, magistrates, and clerks from districts with a high number of asbestos cases. Obviously, settlement will be a major means of resolving most of these cases; the subject for discussion was how best to achieve that result. The conference heard the proponents of the tried-and-true techniques—reasonable trial dates firmly adhered to and greater participation of the judge in settlement negotiations. The participants also heard testimonials to innovative and promising techniques such as the summary jury trial, a subject covered in a prior Center report. And they heard calls for still more expansive court activity to encourage and facilitate settlement, for example, early advice to parties about the strength and worth of their cases, as well as intelligence systems that would draw on court records to inform parties of the probable discovery costs associated with proceeding to trial.

FEDERAL JUDICIAL CENTER, ANNUAL REPORT 1984, at 24-25. *See also* T. WILLGING, ASBESTOS CASE MANAGEMENT: PRETRIAL AND TRIAL PROCEDURES (1984).

37. A recent conference entitled "The Bhopal Disaster—A Challenge to the Law," sponsored by Columbia University's Parker School of Foreign and Comparative Law, addressed the special legal problems created by export of technology and management and the transnational nature of the incident. Colum. L. Sch. News, Mar. 1985, at 1, col. 3. Professor Murphy of the Columbia University School of Law stated that "the real issue in

Other kinds of transnational claims are in the offing. How, for example, will we treat the claims that are likely to arise in North America and Europe from the huge property and health losses that will be attributed by some to acid rain, which may be caused by a combination of many pollution sources?[38] Creation of international tribunals may be in order.

III. Desirable Conditions for Disaster Management by Courts

Conditions for court management of claims arising from disasters might be improved in a number of ways. I shall state seven objectives categorically without extended discussion. These principles are developed further in Part IV of this Article, which examines presently existing practice and procedure, and they serve as a basis for the proposals made in Part V.

the Bhopal disaster is not whether liability will be established, but rather whether the measure of damages will be made under American or Indian law." *Id.* The Bhopal incident raises diverse issues of conflict of law, jurisdiction, attorneys' ethics and corporate liability. *Id. See also* newspaper articles cited *supra* note 17; Strock, *Coming to Terms with the Compensation Conundrum*, A.B.A.J., Sept. 1985, at 68.

38. Although the extent of damage from acid rain remains largely unmeasured, it is generally accepted that it is a widespread problem. According to one study,

> Southern California has recently been plagued by acid fogs with pH values as low as 2.2, sufficiently corrosive to sting eyes, nose and throat and to corrode metals. Other communities over widespread areas have experienced similar episodes. In April of 1974 rain with a pH of 2.4, 3,000 times the acidity expected in an average "natural" rainfall, fell on the small hamlet of Pitlochrie, Scotland. That same month, the western coast of Norway suffered through rain with a pH of 2.7, as acidic as vinegar. The most acidic rain ever recorded, 5,000 times more acid than normal, drenched Wheeling, West Virginia, a small town in the Appalachian Mountains of the Eastern United States in the fall of 1978.

G. Wetstone & A. Rosencranz, Acid Rain in Europe and North America, National Responses to an International Problem 3 (1983) (citations deleted). Another recent report links acid rain to pollution sources hundreds of miles away, raising serious compensation problems. *Distant Pollution Tied to Acid Rain*, N.Y. Times, Aug. 23, 1985, at 1, col. 3. *See also* Pallemaerts, *Judicial Recourse Against Foreign Air Polluters: A Case Study of Acid Rain in Europe*, 9 Harv. Envtl. L. Rev. 143 (1985); *7 States Sue for Tougher Rules on Acid Rain*, N.Y. Times, Aug. 6, 1985, at B11, col. 1; Reagan, *Quebec Agrees to a Study of Acid Rain Issue*, N.Y. Times, Mar. 18, 1985, at A1, col.6.

In a recent report prepared in cooperation with the Canadian special envoy on acid rain, the President's special envoy on acid rain, Drew Lewis, noted that acid rain is currently causing significant ecological and economic damage. The report concludes that the commitment of substantial funds to acid rain research and control technologies is essential to preventing future damage. D. Lewis & W. Davis, Joint Report of the Special Envoys on Acid Rain (Jan., 1986).

Even if acid rain is eliminated in the near future, claims for damage that has already occurred are likely. The legal system must be prepared to handle these claims.

A. *Concentration of Decisionmaking.*

Power to speak for each side in a mass tort dispute needs to be concentrated in the hands of one or at most a few persons.[39] Optimally, that person or persons should be capable of making decisions and committing all the parties on one side of the case to carrying out those decisions. This requirement would extend to the representatives of the claimants, to the representatives of those against whom claims are made and to the court or other tribunal. The difficulties in litigating asbestos cases are a prime example of the problems caused by lack of coordination among defendants.[40] Now, however, that the asbestos defendants have agreed to make substantial contributions to a fund and many are integrating their efforts, plaintiff counsel will be under greater pressure to come to terms with each other.

B. *Single Forum.*

The basic legal and factual decisions governing disaster claims should be made in a single forum.

C. *Single, Known Substantive Law.*

It is essential that there be a single, easily determined and authoritative substantive law applied to the litigation so that the parties know in advance what the law provides. Even more advantageous, of course, would be a uniform law in place *before* the disaster occurs so that the parties could take precautions such as purchasing insurance—if available at affordable rates[41]—or declining to engage in activities that may prove too costly in terms

39. Deciding who will speak for a large group of litigants may present a serious problem to the legal decisionmaker. A flurry of activity surrounded the Indian government's selection of counsel to pursue claims arising out of the Bhopal tragedy. *See* Greenhouse, *The Lawyers Chosen by India,* N.Y. Times, Mar. 12, 1985, at D1, col. 3. The district court was obliged to name a three-member plaintiffs' management committee from among a large number of attorneys and several contending factions. *Id.* at D6.

40. *See supra* note 36.

41. The insurance industry is currently struggling with the issue of whether to insure certain activities that may lead to large and unpredictable liability. The uncertainty of what substantive law will apply in a specific case creates uneasiness about insuring those activities, especially when product liability, hazardous waste or pollution is involved. *See Insurance Against Pollution is Cut,* N.Y. Times, Mar. 11, 1985, at A1, col. 6. The article concludes "[m]ost of those interviewed urged that the Federal Government set limits on liability for long-term pollution and reform the personal injury, or tort, legal system that has produced large damage awards." *Id.* at D12, col. 1. *See also Liability Insurance Skyrockets,*

of possible future liability.[42] Proposed national product liability legislation is one attempt to achieve this goal.[43]

Wash. Post, Aug. 4, 1985, at K1, col. 1; *The Liability Squeeze*, Newsday, Jan. 19, 1986, at 5, col. 1.

The concerns of insurance companies have increased in light of findings of a "duty to defend" in latent injury product liability actions. *Cf.* American Home Products Corp. v. Liberty Mutual Insurance Co., 748 F. 2d 760 (2d Cir. 1984).

The Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6987 (1982 & Supp. I 1983), and the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601-9657 (1982 & Supp. I 1983), both contain liability insurance coverage requirements. STUDY GROUP PROPOSAL, *supra* note 6, at 162-172. Imposition of strict liability for injuries on hazardous waste producers would increase their potential liability exposure. According to the *Study Group Proposal*, continued insurability probably would require tort law reforms through federal legislation. *Id.* at 177. *See* Jernberg, *Insurance for Environmental & Toxic Risks: A Basic Analysis of the Gap Between Liability and Coverage*, 34 FED. OF INS. COUNS. Q. 123 (Winter 1984); Epstein, *supra* note 4.

One possible solution is for manufacturers to self insure. *See* Diamond, *Acmat Set to Form Insurance Unit*, N.Y. Times, Mar. 16, 1985, at B1, col. 6.

42. For example, the village of Port Jefferson was forced to eliminate many recreational programs, including ice skating and athletics, after it lost its liability insurance. Vincent, *One Village's Life Without Insurance*, Newsday, Jan. 19, 1986, at 23, col. 1. In similar fashion, G.D. Searle & Company recently halted sales of IUD's in the United States. *See Searle, Assailing Lawsuits, Halts U.S. Sale of Intrauterine Devices*, N.Y. Times, Feb. 1, 1986, at A1, col. 5.

The unavailability of product liability insurance at reasonable rates because of unknown liability can impose high costs on society. Consider the shortage of whooping cough vaccine in late 1984 that arose when one of only two remaining manufacturers withdrew from the market rather than pay "sharply higher rates for liability insurance." Engelberg, *Maker of Vaccine Quits Market*, N.Y. Times, Dec. 12, 1984, at A21, col. 1. The shortage has sparked a spirited debate about who should pay for damages. The answer is far from clear. *See Vaccine Injuries: Who Should Pay?*, Nat'l L.J. April 1, 1985, at 1. The controversy may result in federal action. *Id.* at 27. *See also U.S. Plan to Curb Damage Claims Aims to Avert Vaccine Shortages*, N.Y. Times, Apr. 7, 1985, at A1, col. 2. When Connaught Laboratories of Swiftwater offered to supply the whooping cough vaccine, it was on the condition that Congress would indemnify them against suits brought on behalf of children who suffer adverse reactions. N.Y. Times, Dec. 20, 1984, at A19, col. 1. *See also* INSTITUTE OF MEDICINE, DIVISION OF HEALTH PROMOTION AND DISEASE PREVENTION, VACCINE SUPPLY AND INNOVATION 160 (1985) (urging "political decision makers to develop a compensation system for vaccine-related injury" and recommending "that action be taken to reduce the serious deterrents to vaccine manufacturing and innovation that arise from the unpredictable nature of the current liability situation"); Huber, *Bad Science, Worse Justice*, Across the Board, Jan. 1986, at 30, 36 ("Something is dangerously wrong when a company needs legislative protection before it will dare to manufacture a risk-reducing vaccine.").

Other commentators have noted that notwithstanding the benefit society receives from the drug, it is important that those who are injured be compensated. *The Cost of Ignoring Vaccine Victims*, N.Y. Times, Oct. 15, 1984, at A18.

43. *See* Kasten & Kimmelman, *Is it Time for a Uniform Product Liability Law?*, A.B.A.J., May 1985, at 38 (a debate between Senator Robert Kasten who supports uniform product liability legislation and Gene Kimmelman, the director of a consumer interest group that opposes the legislation); Swartz, *The Time to Stabilize Product Liability is Now*, N.Y. Times, Apr. 18, 1985, at A26, col. 4; Taylor, Jr., *Products Liability: The New Morass*, N.Y. Times, Mar.

D. *Support to Trier.*

The court or other tribunal needs facilities and personnel such as magistrates, special masters,[44] and clerical workers[45] to extend its reach, and to act as both buffer and conduit between the trier and the parties and other interested individuals and organizations.

E. *Flexible, Controlled Fact-Finding.*

Reasonable factfinding procedures are essential. This goal, however, does not imply that the jury need necessarily be eliminated. In particular, flexible rules on the admissibility of evidence, such as Rules 702 to 705 of the Federal Rules of Evidence governing the use of experts, are needed, especially in litigation in which scientific evidence is important.[46] But liberal rules on admissibility require the judge to exercise firm control to ensure that the evidence produced by experiments and data gathering is appropriate for use at trial.[47]

F. *Cap on Award and Method of Allocation.*

Particularly large disasters probably require a cap on the total cost to defendants,[48] a method of allocating the cost among de-

10, 1985, § 3 at 1, col. 1. Expressive of federal concern is S. 100, 99th Cong., 1st Sess. (1985), introduced by Senator Kasten. This bill would set uniform procedures, statutes of limitations, and notice requirements and limit available compensation and fee recovery. *Id.* *See* SENATE COMM. ON COMMERCE, SCIENCE, AND TRANSPORTATION, PRODUCT LIABILITY ACT, S. REP. NO. 476, 98th Cong., 2d Sess. (1984), for a committee report analyzing a previous bill. *See also* Coccia, *Uniform Product Liability Legislation: A Proposed Federal Solution*, 1983 TRIAL LAWYERS GUIDE 236; Brown, *The Role of Legislation*, in CHIEF JUSTICE EARL WARREN CONFERENCE ON ADVOCACY REPORT ON PRODUCT SAFETY IN AMERICA 51 (1984).

44. For an analysis of the use of special masters, see Nathan, *The Use of Masters in Institutional Reform Litigation*, 10 U. TOL. L. REV. 419 (1979). Doubts about the authority to use such personnel in institutional reform litigation do not apply to their limited use in civil mass tort cases. *See* Levine, *The Authority for the Appointment of Remedial Special Masters in Federal Institutional Reform Litigation: The History Reconsidered*, 17 U.C. DAVIS L. REV. 753 (1984); Strasser, *On Orders from the Court*, STUDENT LAWYER, Jan. 1985, at 24 (discussing the role of special masters in the judicial system).

45. *See, e.g.*, *In re* "Agent Orange" Product Liability Litigation, 611 F. Supp. 1296, 1319 (E.D.N.Y. 1985) (use of clerical staff in assessing attorney fee awards).

46. Rule 702 governs the testimony of experts; Rule 703 governs the bases of an expert's opinion.

47. *See* J. Weinstein, Improving Expert Testimony (forthcoming, University of Richmond Law Review, Spring 1986).

48. Statutory limits on the amount of recovery have been generally upheld by the courts. *See infra* note 54. *See also* Duke Power Co. v. Carolina Environmental Study Group, 438 U.S. 59 (1978) (upholding the liability limitation of the Price-Anderson Act); Trans

fendants and a sure source of funds. The Superfund Group proposals for compensation,[49] the Price-Anderson Act $560-million cap for a nuclear power plant accident[50] and the Wellington asbestos group proposals[51] might serve as models for addressing

World Airlines v. Franklin Mint Corp., 466 U.S. 243 (1984) (upholding the valid application of the Warsaw Convention).

An interesting attempt to limit liability in the air disaster area, the multilateral treaty popularly known as the Warsaw Convention has proved to be somewhat less successful than hoped because of limits on its applicability and the existence of numerous ways in which limits may be circumvented. For example, the Warsaw Convention applies only to a case involving an "accident," a term that the courts have interpreted narrowly. *See* Air France v. Saks, 105 S. Ct. 1338 (1985) (Warsaw Convention does not apply to damage to a passenger's ear occurring during normal flight).

49. *See* STUDY GROUP PROPOSAL, *supra* note 6.

50. 42 U.S.C. §2210 (1982 & Supp. 1 1983). Under the Price-Anderson Act, strict liability is applied to injuries stemming from nuclear power production activities. In return for the application of strict liability, liability is capped at a specific level. *Id.* To encourage development of the nuclear industry, the government originally indemnified up to the limit. Now, however, retrospective premiums are assessed against industry participants, eliminating the need for indemnification by 1985. L. ROCKETT, FINANCIAL PROTECTION AGAINST NUCLEAR HAZARDS: THIRTY YEARS OF EXPERIENCE UNDER THE PRICE-ANDERSON ACT 19 (1984). Many have attacked the liability limitations of the act in the belief that plaintiffs would recover larger sums through litigation. *See, e.g.*, K. Welch, *Tightening Nuclear Liability*, N.Y. Times, Jan. 7, 1986, at A21, col. 1. In a response to these attacks, Professor Murphy of Columbia Law School noted:

> The belief that the tort system will produce a satisfactory result is, of course, central to this thesis. . . . The unspoken premise is that without Price-Anderson [plaintiffs] would receive full compensation. . . . Their chief response would be a possible action against the utility where the action took place, against a company likely to be bankrupt or close to it because of having lost a major portion of its power production. . . . As has become distressingly clear in recent years, the tort system is not capable of handling mass accidents in a coherent, affordable fashion.

Murphy, Letter to the Editor, N.Y. Times, Jan. 31, 1986, at A30, col. 3. The important feature is the tradeoff between strict liability —and therefore guaranteed compensation— and the liability limitation. *See also* Buffington, *The Price-Anderson Act: Underwriting the Ultimate Tort*, 87 DICK. L. REV. 679 (1983).

51. The Wellington proposal is designed to establish a nonjudicial facility to handle asbestos claims more fairly and efficiently and to end litigation between asbestos defendants and their insurers. It will handle asbestos-related claims on behalf of member insurers and producers. CENTER FOR PUBLIC RESOURCES, AGREEMENT CONCERNING ASBESTOS-RELATED CLAIMS: HIGHLIGHTS (1984) (on file in the office of the *Columbia Journal of Environmental Law*). It is expected to benefit claimants by providing a central place to file claims without going to court, hence reducing legal costs and speeding up the time process for resolution of claims. Tarnoff, *Asbestos Producers Mulling Agreement*, Business Insurance, May 28, 1984, at 12, col. 1. The facility will only settle claims if all the producers agree and will not pay punitive damages. *Id.* at 79.

Many plaintiff's lawyers remain skeptical of the proposal. They plan to "wait and see" if the victims really benefit or if the unified settlement approach gives defendants more leverage. Riley, *Plaintiffs' Bar Wary of Asbestos Accord*, Nat'l L.J., July 8, 1985, at 3, col. 1.

these concerns.[52] Although awkward, the bankruptcy approach represents, in part, an attempt to meet this and other needs.[53]

G. *Single Distribution Plan.*

The method of distribution to the claimants should require little or no further adjudication. Essentially, a workers' compensation-like scheme crafted for the individual case is necessary. Punitive damages and extreme claims of pain and suffering are probably impractical and undesirable.[54] The workers' compensa-

52. One interesting proposal has just recently been released by Senator John Danforth, Chairman of the Senate Commerce Committee. In what is labeled a "New Staff Working Draft on Product Liability Reform" (November 27, 1985), Danforth recommends establishing a procedure which makes it easier (and allegedly more efficient) for eligible claimants to recover compensation while simultaneouslly placing limitations on the nature and amount of the recovery awarded. The Danforth proposal would create a "no fault" compensation system for certain products but such compensation would be limited to "net economic loss," i.e., medical expenses and lost earnings reduced by claimant compensation recovered from government or employee benefit programs, private insurance policies and medical plans or workers' compensation programs. Expedited payment would be made within 60 days of the filing of a claim.

53. A declaration of bankruptcy could serve to consolidate numerous claims in one forum. *See* Note, *Cleaning Up in Bankruptcy: Curbing Abuse of the Federal Bankruptcy Code by Industrial Polluters*, 85 COLUM. L. REV. 870 (1985) (suggesting that the bankruptcy code could facilitate settlement of pollution disputes); *The Manville Settlement: Pressure, Percolation*, Nat'l L.J., Aug. 19, 1985, at 30, col. 1; *3 Manville Insurers Agree to Pay*, Newsday, Feb. 5, 1985, at 37 (Manville Corporation's insurance carrier agreed to pay up to $112 million in asbestos-related health claims). Bankruptcy was also filed in another major product liability case. *See* Diamond, *Robins, in Bankruptcy Filing, Cites Dalkon Shield Claims*, N.Y. Times, Aug. 22, 1985, at A1, col. 1. Plaintiffs are often opposed to consolidation through bankruptcy. *See, Attorneys for Plaintiffs Object to Robins Filing*, N.Y. Times, Aug. 23, 1985, at D5, col. 6 (suggesting that the consolidation of suits in the bankruptcy court would limit the size of the damages that could be recovered).

54. Legislatures would seem to have the power to limit compensation by eliminating or restricting traditional damages theories. For example, no-fault insurance schemes that limit or eliminate recovery for pain and suffering have generally been upheld against a variety of challenges. The leading case is *Pinnick v. Cleary*, 360 Mass. 1, 271 N.E.2d 592 (Mass. 1971). It involved a no-fault scheme that limited recovery for lost wages and eliminated recovery for pain and suffering. The court found the scheme valid despite equal protection and due process challenges because the statute bore a rational relationship to legitimate state objectives and provided an adequate substitute for abrogated rights. *See also* Montgomery v. Daniels, 38 N.Y.2d 41, 340 N.E.2d 444 (1975) (upholding statute that had no recovery for pain and suffering unless expenses are over $500); Bushnell v. Sapp, 194 Colo. 273, 571 P.2d 1100 (1977) (upholding $500 threshold); Chapman v. Dillan, 415 So. 2d 12 (Fla. 1982) (approving the Florida law's threshold).

Some no-fault statutes, however, have been invalidated on equal protection or due process grounds. *See* Kenyon v. Hammer, 142 Ariz. 69, 688 P.2d 961 (1984) (striking down provisions that limited compensable components of pain and suffering as a violation of state's equal protection clause). *But see* Manzanares v. Bell, 214 Kan. 589, 522 P.2d 1291 (1974) (upholding the Kansas no-fault insurance scheme against due process and equal

tion framework can be equitable because in return for foregoing large recoveries, workers are assured adequate compensation even when there is no proof of fault—provided that the plan takes account of such factors as inflation and new hazards.

Some form of a needs test might be useful to identify and compensate those who need help the most, but under our mixed capitalist-welfare system this refinement may not be a realistic possibility. There are so many collateral income sources—pensions, Aid for Families with Dependent Children, Social Security disability, workers' compensation, private insurance and the like—that accounting for collateral benefits may create more problems than it solves.

IV. Procedural Tools and Models Already Developed

Unfortunately, we have already had fairly wide experience in all types of disasters. In dealing with them on an *ad hoc* common law basis or through sporadic legislation, our lawyers and lawmakers have shown a great deal of ingenuity and effective pragmatism.[55] Often, however, the cost of the solutions has been very high. For

protection challenges despite limitations on pain and suffering recovery). *See generally* J. O'Connell & R. Henderson, Tort Law, No Fault and Beyond, The Future (1975).

Malpractice litigation is another example of an area where legislated limits have been upheld. In *Fein v. Permanent Medical Group*, 38 Cal.3d 137, 695 P.2d 665, *appeal dismissed*, 106 S.Ct. 214 (1985), the California Supreme Court upheld against constitutional challenges the statutory limit on recoverable noneconomic damages in medical malpractice actions. New York is considering similar limitations. Sullivan, *Doctors & Insurers*, N.Y. Times, Feb. 28, 1985, at B4, col. 6. *See also* Hoffman v. United States, 767 F. 2d 1431 (9th Cir. 1985) (upholding California's statutory limit on noneconomic recovery).

Any limit on recovery must be mindful that the amounts awarded may serve a deterrent as well as compensation purpose. Limiting pain and suffering awards, punitive damages and excessive awards, however, will probably not have a negative effect in most areas. Consider medical malpractice awards:

> Some few people obtain excessive verdicts. Many more who were wrongfully injured are not aware of their rights or are not getting very much in the way of help from the tort system. . . . Huge lump sum payments are often not a sensible way to ensure that the injured person will receive proper medical and other support during his or her lifetime. . . . Obviously, punitive damages are undesirable. In this field, such awards are wild cards that serve no useful public purpose.

J. Weinstein, Medical Malpractice Cases: A View from the Federal Courthouse, Remarks at the Federation of Jewish Philanthropies Service Corporation Third Annual Conference 5, 13 (Oct. 11, 1985) (text available in the office of the *Columbia Journal of Environmental Law*).

55. Some attempts have been made to simplify trials. *See* Luneburg & Nordenberg, *Specially Qualified Juries and Expert Nonjury Tribunals: Alternatives for Coping with the Complexities of Modern Civil Litigation*, 67 Va. L. Rev. 887 (1981). *See also* procedures discussed *supra* note 16.

example, in the asbestos cases, of the total dollar amount that will be expended by defendants, it has been estimated that considerably less than 40% will go to the injured.[56]

A systematic approach to existing tools and models might suggest treatment under at least the following headings: 1) Who will bring and defend claims, and how shall these activities be controlled and financed? 2) What tribunals have jurisdiction and how can they acquire power over all claimants and defendants? 3) What substantive law applies and how can it be made uniform in the dispute? 4) What procedural law applies and how can it be used to minimize transaction costs such as attorney fees and court time? 5) What compensation scheme can be utilized—*e.g.*, one based upon need, damage, prefixed sums, lump-sum or periodic payments or individually determined awards? 6) What are the sources of the awards?

In the following discussion, I will take a somewhat different perspective, asking: What are some of the devices that have been used in the past? What possibilities do they present for improving our handling of mass disasters? Can we combine the devices already tested in new ways to meet our new problems?

A. *Multidistrict Litigation and Other Consolidation Procedures.*

The use of a multidistrict judicial panel to switch cases from all federal courts to one federal judge for control of preliminary motions, discovery and settlement has proven useful in many cases.[57]

56. According to one recent study of asbestos litigation, plaintiffs on the average receive 32 percent of defendants' (and their insurers') litigation expenses. J. KAKALIK, P. EBENER, W. FELSINGER & M. SHANLEY, *supra* note 5, at 40. Plaintiffs actually get a smaller percentage of the total expended because the 37% does not take into account court costs, costs of company executive time and other miscellaneous costs.

One group of commentators argues that the costs of ordinary litigation are justified, even to defendants, in the light of the recoveries that tort plaintiffs can expect. Trubek, Sarat, Felstiner, Kritzer, & Grossman, *The Costs of Ordinary Litigation*, 31 UCLA L. REV. 72 (1983).

57. The multidistrict litigation procedure is pursuant to 28 U.S.C. § 1407 (1982). According to the 1985 Annual Report of the Multidistrict Judicial Panel, 14,489 actions have been consolidated for pretrial proceedings pursuant to this procedure since 1968. ANNUAL REPORT OF THE JUDICIAL PANEL ON MULTIDISTRICT LITIGATION 1 (Sept. 1985). The report says that although transfer may increase the workload in some districts, overall "[t]he burden imposed on the courts by the coordination or consolidation of actions for pretrial proceedings under Section 1407 is . . . less than that imposed by separate handling in different districts of a like number of related cases." *Id.* at 17.

Courts often recognize the useful role that multidistrict discovery plays. *See, e.g.*, Causey v. Pan Am World Airways, 66 F.R.D. 392 (E.D. Va. 1975) (court denied a class action

Transfer of cases within the federal system for full trial under the multidistrict litigation statute for the convenience of the parties and in the interest of justice would be a helpful auxiliary.[58]

It may be desirable for states to consider analogous provisions for transfer and consolidation of pretrial procedures when consolidation for the complete trial might prove to be unmanageable. Some of our large states have judicial divisions and departments almost as complex as those in the federal system.

Cases commenced in state courts cannot be included in the present federal multidistrict mechanism unless they can be removed to federal court. Under the Commerce Clause,[59] Congress arguably has the power to transfer to the federal court those state cases not presently removable, on the ground that in disputes of this size and nature, national issues predominate.[60] Stays of competing state litigation are also possible.[61]

In some instances it might be more sensible to send all the cases to the court system of the state with the predominant inter-

certification, finding multidistrict litigation treatment would be superior); Yandle v. PPG Indus., 65 F.R.D. 566 (E.D. Tex. 1974) (same).

58. A proposal to expand multidistrict litigation to allow consolidation for trial as well as pre-trial has been introduced in Congress. *See* H.R. 4159, 98th Cong., 1st Sess. (1983) (introduced by Rep. Kastenmeier).

It should be noted that although under the current multidistrict litigation system cases are consolidated only for pretrial purposes, most cases are never referred back to the courts in which they originated. Instead, they are either settled, or transferred for all purposes, pursuant to the change of venue statute, 28 U.S.C. § 1404 (1982), to the court in which they were consolidated.

59. U.S. Const. art. I, § 8, cl. 3.

60. There have been a number of decisions delineating the breadth of federal commerce power. *See, e.g.*, Garcia v. San Antonio Metropolitan Transit Auth., 105 S. Ct. 1005 (1985); Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241 (1964); Wickard v. Filburn, 317 U.S. 111 (1942).

61. Under existing procedure, if essentially the same action seeking the same relief is going forward in both state and federal court, one action should be stayed or dismissed while the other goes forward. Typically, the federal court exercises jurisdiction over the case. Colorado River Water Conservation District v. United States, 424 U.S. 800, 817 (1976). Only when "exceptional circumstances," as outlined in *Colorado River*, are present is the federal court directed to dismiss its action in favor of the concurrent state proceeding. *See* Telesco v. Telesco Fuel and Masons' Materials, 765 F.2d 356 (2d Cir. 1985) (dismissal of federal action warranted where the federal and state action were essentually the same, the state court had had jurisdiction over the case for much longer, and the case was to be decided on state law).

Illustrative of the general rule is *In re Baldwin-United Corp. (Single Premium Deferred Annuities Ins. Litigation)*, 770 F.2d 328 (2d Cir. 1985). The district court preliminarily enjoined 31 states from bringing suit in state court on behalf of private plaintiffs with state law claims related to federal law claims pending in the Baldwin-United multidistrict securities class action. The lower court invoked the All Writs Act, 28 U.S.C. § 1651 (1982), finding

est. In part this can be accomplished through federal stays, application of *forum non conveniens* concepts and deferential refusals to accept jurisdiction. A more direct and comprehensive approach probably could be provided by Congress, based on its constitutional power to regulate federal court jurisdiction,[62] its authority to legislate in matters affecting interstate commerce,[63] including matters within the province of state and local government,[64] and the obligation imposed on states by the Supremacy Clause.[65] Under such a scheme, federal and state cases would be transferred to a single state forum, provided perhaps—as a matter of comity—that the state court involved consented.

It seems doubtful that, absent legislation, voluntary cooperation among the state and national judicial systems can streamline disaster litigation. The National Center for State Courts, for example, organized an excellent "Judicial Administration Working Group on Asbestos Litigation."[66] It made many useful suggestions for facilitation of insurance claims, use of alternative dispute

that the injunction was needed to preserve its jurisdiction and to prevent frustration of ongoing settlement negotiations. Baldwin-United, 770 F.2d at 333.

The Second Circuit affirmed, analyzing the All Writs Act issue in light of a similar statute, the Anti-Injunction Act, 28 U.S.C. § 2283 (1982), which prohibits a federal court from enjoining pending state court actions except, *inter alia*, when necessary in aid of its jurisdiction. The Court of Appeals stated that prosecution of parallel, related state court actions "could only serve to frustrate the district court's efforts to craft a settlement in the multidistrict litigation before it" and constituted "a major threat to the federal court's ability to manage and resolve the actions against the remaining defendants." Baldwin-United, 770 F.2d at 337, 338. Thus, so long as a substantial prospect of settlement was present, the injunction was proper. *Id.* at 338.

Other solutions to the federal-state concurrent jurisdiction problem have been proposed. Many of these proposals, however, seek to limit federal jurisdiction, making consolidation of similar cases for trial more difficult. See the discussion of a series of proposed diversity jurisdiction modification bills at 129 CONG. REC. H26023 (daily ed. July 29, 1983) (Statement of Rep. Kastenmeier).

62. U.S. Const. art. III.

63. *See supra* notes 7, 60-61 and accompanying text.

64. The preemption of state tort law by federal statute is commonplace. *See, e.g.*, Consumer Product Safety Act, 15 U.S.C. §§ 2051(b)(3), 2072 (1982); Civil Rights Act of 1971, 42 U.S.C. § 1983 (1982); Occupational Safety and Health Act, 29 U.S.C. §§ 651-678 (1982). Acts that include compensation schemes also preempt state law. *See, e.g.*, Longshoremen's and Harbor Workers' Compensation Act, 33 U.S.C. § 903 (1982); Price-Anderson Act, 42 U.S.C. § 2210 (1982 & Supp. I 1983); Black Lung Benefits Act, 30 U.S.C. § 955 (1982). Similarly, the Supreme Court has held that state courts have an obligation to enforce federal law even where it conflicts with prevailing state policy. *See* Testa v. Katt, 330 U.S. 386 (1947); Redish, *Supreme Court Review of State Court "Federal" Decisions: A Study in Interactive Federalism*, 19 GEORGIA L. REV. 861, 891 (1985).

65. U.S. Const. art. VI.

66. NATIONAL CENTER FOR STATE COURTS, *supra* note 36.

resolution methods, pretrial and trial procedures, and model standing orders on such matters as the form of complaints, standard interrogatories and the like.[67] But the impact of its work on the sprawling asbestos personal injury litigation seems to have been marginal at best, and it has had no apparent effect on the second wave of even greater asbestos problems involving removal of asbestos from schools and other buildings.[68] Similar well-intentioned efforts by the Federal Judicial Center probably will also turn out to have had only minor impact on controlling this litigation.[69]

Some methods that rely on federal-state coordination and cooperation may be feasible. Joint management of state and federal cases is sometimes possible. There is no reason why a state judge and a federal judge cannot jointly decide discovery issues, assigning a single magistrate or special master to both the state and federal cases. Lawyers may press their discovery in one tribunal and arrange in one court by either stipulation or order of the presiding judges for a test trial or settlement that will control the entire federal-state litigation.

Some formal guidelines or procedures are desirable to avoid the lack of consensus present in some cases, such as the Kansas City Skywalk case,[70] that leads to unnecessary conflicts and disputes. Federal-state judicial councils,[71] existing in many of our states, might provide an appropriate forum, equivalent to that of the present federal multidistrict panel, for switching cases. Legislation might well be required to resolve disputes that cannot be mediated about forum choice.

67. *Id.* at 5-29.

68. The potential magnitude of this second wave has astounded many commentators. *See* Tarnoff, *The Crises Grows, Asbestos Property Damage Could Cost Billions of Dollars*, Business Insurance, Feb. 18, 1985, at 1; *Asbestos Claims Mount*, Newsday, Jan. 31, 1985, at 6. *But see S.C. School District Loses Asbestos Damage Suits*, Nat'l L.J., Sept. 2, 1985, at 5, col.1 (asbestos defendants successful in second asbestos-contaminated property suit to go to trial; questions raised about the success of future contaminated property claims). *Cf.* Lang, *Danger in the Classroom: Asbestos in Public Schools*, 10 COLUM. J. ENVTL. L. 111 (1985) (indicating that the removal of asbestos is essential to health). Lack of affordable insurance available to companies removing the asbestos will compound the problems.

69. *See* FEDERAL JUDICIAL CENTER, supra note 36.

70. See discussion in Comment, *Federal Mass Tort Class Actions: A Step Toward Equity and Efficiency*, 47 ALB. L. REV. 1180 (1983) (concerning the problem of lack of coordination resulting in several ongoing state actions).

71. *See* Weinstein, *Coordination of State and Federal Judicial Systems*, 57 ST. JOHN'S L. REV. 1, 10-12 (1982).

Even if procedural problems are dealt with, there remain potentially serious conflict of laws problems. It is clearly desirable to have one substantive law applicable to related disputes. Modern conflict of laws concepts such as "center of gravity," "national consensus" or "better law" provide a limited basis for uniformity in some instances,[72] but the uniformity problem often presents serious obstacles.[73] For example, in the asbestos cases, differences among the federal circuits and states about the effect of insurance coverage under a variety of policies and insurers have made a global settlement more difficult.[74]

State rulings on questions certified by federal courts are sometimes possible,[75] but the difficulties of coordination between the two court systems and the resulting delay are considerable. A federal law of conflicts in mass torts to replace the often barren and mechanical reference to state law certainly needs consideration.[76]

72. After all, conflict of laws decisions are made in part based on "the interstate judicial system's interest in obtaining the most efficient resolution of controversies. . . ." Worldwide Volkswagen Corp. v. Woodson, 444 U.S. 286, 292 (1980). *Compare* Hill, *The Judicial Function on Choice of Law*, 85 COLUM. L. REV. 1585 (1985) *with* Korn, *The Choice of Law Revolution: A Critique*, 83 COLUM. L. REV. 772 (1983).

73. *See, e.g., In re* "Agent Orange" Product Liability Litigation, 580 F. Supp. 690 (E.D.N.Y. 1984) (in a product liability action, federal law or consensus law applied to questions regarding manufacturer's liability, government contract defense and punitive damages, even though plaintiff had not stated a federal cause of action).

74. The liability of an insurer depends in part on when the court finds the injury actually occurred. If it occurs at exposure to a substance, then an insurer may be liable for all future injuries. If at manifestation, the current insurer may be liable for injuries stemming from past exposures. *Compare* Insurance Co. of North America v. Forty-Eight Insulations, 633 F.2d 1212 (6th Cir. 1980), *cert. denied*, 454 U.S. 1109 (1981) (exposure) *with* Eagle-Pitcher Indus., Inc. v. Liberty Mutual Ins., 682 F. 2d 12 (1st Cir. 1982), *cert. denied*, 460 U.S. 1028 (1983) (manifestation).

75. *See, e.g.*, FLA. STAT. ANN. § 25.031 (Harrison 1986). The Florida certification procedure provides that any federal court may certify questions of state law to the Florida Supreme Court. *Id.* The Florida statute was strongly endorsed by the Supreme Court in Clay v. Sun Insurance Office Ltd., 363 U.S. 207 (1959). The Court noted that "[e]ven without such a facilitating statute we have frequently deemed it appropriate . . . to secure an authoritative state court's determination of an unresolved question of its local law." *Id.* at 210. Such a procedure was used in *White v. Johns-Manville Corp.*, 103 Wash. 2d 344, 693 P.2d 687 (1985).

76. Pressure for application of a single substantive law appears to be building. The Fifth Circuit's recent refusal to apply federal common law in the asbestos litigation, for example, drew a strong dissent. *See* Jackson v. Johns-Manville Sales Corp., 750 F.2d 1314 (5th Cir. 1985).

One solution that has been proposed is federal product liability legislation.[77] That answer has been opposed by many.[78]

An alternative would limit federal legislative action to the circumstances of some mass tort disasters.[79] How such a disaster would be defined, and who or what bodies would make the decision to characterize a series of litigations as warranting special treatment, are among the serious issues that must be considered in deciding whether this approach is practicable.

A victims' compensation fund financed on the basis of market share by producers and divided on some statistical basis among those injured has its attractions.[80] Such a solution may work better if a special tax and compensation scheme is devised. The Superfund toxic waste cleanup fund's provision of a tax reflects one side of this equation.[81] Suggestions have been made for federal legislation to compensate hazardous waste site victims whose medical bills are not covered by insurance.[82]

It may well be desirable to limit federal legislation to the most difficult class of problems—those involving cases in which the in-

77. *See* SENATE COMMERCE COMMITTEE, NEW STAFF WORKING DRAFT ON PRODUCT LIABILITY REFORM (Nov. 27, 1985). This "Working Draft," proposed by Senator Danforth, Chairman of the Senate Commerce Committee, focuses primarily on the issue of compensation rather than substantive tort reform. The Danforth proposal establishes a procedure which makes it easier for eligible claimants to recover for "net economic loss." The goal is to provide a mechanism for awarding damages quickly while simultaneously placing a cap on the amount awarded. *See also supra* notes 43, 52.

78. Among the groups opposed to the legislation are the ABA, the Association of Trial Lawyers of America, the AFL-CIO, the National Association of Attorneys General, Congress Watch, the Consumer Federation of America, Consumers Union, the National Conference of State Legislatures, the National Governors Association and the Conference of Chief Justices. *Product Liability Bill Fails in Senate Committee*, WASHINGTON LETTER, June 1, 1985, at 1, 4 (published by American Bar Association).

79. An analogy can be drawn between mass tort legislation that would be applicable only under certain circumstances and disaster aid which is available only in certain situations. The Disaster Relief Act of 1974, 42 U.S.C. §§ 5121-5202 (1982), provides relief to mitigate immediate hardships caused by widespread destruction. The aid is available only where the President has declared a federal emergency. *Id.* at § 5141.

80. For a general discussion of this sort of plan, see *In re* "Agent Orange" Product Liability Litigation, 597 F. Supp. 740 (E.D.N.Y. 1984); Rosenberg, *supra* note 25.

81. Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601-9657 (1982 & Supp. 1 1983).

82. *See, e.g.*, S. 917, 98th Cong., 1st Sess. (1983) (Victim Compensation and Pollution Liability Act introduced by Sens. Stafford & Randolf); S. 945 and 946, 98th Cong., 1st Sess. (1983) (Environmental Poisoning Compensation Act introduced by Sens. Mitchell and Randolf); H.R. 2482, 98th Cong., 1st Sess. (1983) (Toxic Victim Compensation Act introduced by Rep. LaFalce); H.R. 2582, 98th Cong., 1st Sess. (1983) (Hazardous Substance Victim Compensation Act of 1983 introduced by Rep. Markey); H.R. 2330, 98th

juries are nonproximate in time and place and the identities of both the injured and the injuring parties are not clear. These are essentially the toxic tort cases. The federal government is so heavily involved in regulation and cleanup of toxic substances that creation of a national substantive policy on toxic mass disasters seems a reasonable step. A limited national product liability statute would have the advantage of leaving most of tort law to be handled in traditional ways pursuant to state law.

B. *Class Actions.*

The class action furnishes a useful way of bringing together many plaintiffs and defendants in a single litigation that will bind all the parties. It has limits, required in part by due process. One such limit is the right to opt out. The *Bendectin* litigation demonstrated that this right may make full use of the class action device impossible under current rules.[83] As a practical matter, however, experienced plaintiff and defense counsel can usually avoid the problem of plaintiffs' opting out of a settlement. Defendants insist on the power to cancel the settlement if enough plaintiffs opt out, but almost never take advantage of such a "walk away" clause. Moreover, the right to opt out may not extend to class actions to the extent that they seek punitive damages,[84] and so the

Cong., 1st Sess. (1983) (Toxic Victim Compensation Act introduced by Rep. LaFalce). None of these bills was enacted.

During the reauthorization of the Comprehensive Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 (1982), an amendment authored by Senator Mitchell was considered that would have created a five year, five state demonstration Victim Compensation Program. Office of United States Senator George J. Mitchell, Press Release (May 1, 1985) (on file in the office of the *Columbia Journal of Environmental Law*). A Senate Committee report noted that such a program would assure that when CERCLA is next considered "Congress will have information required to make reasoned judgments on the issue of victim compensation." SEN. COMM. ON ENVIRONMENT AND PUBLIC WORKS, SUPERFUND AMENDMENTS OF 1984, S. Doc. No. 631, 98th Cong., 2d Sess. 31 (1984). The proposal was eventually defeated in the Senate by a vote of 49 to 45. *Senate Passes Superfund*, SIERRA CLUB NATIONAL NEWS REPORT, Oct. 11, 1985, at 1.

For an overview of hazardous waste victim compensation proposals see Note, *Developments in Victim Compensation Legislation: A Look Beyond the Superfund Act of 1980*, 10 COLUM. J. ENVTL. L. 271 (1985). Most of these proposals have not received wide acceptance, indicating that it is unlikely such a plan will become a reality in the near future. *Id.* at 293.

For a similar plan aimed at compensation of radiation victims see Radiation Cancer Compensation Act of 1983, S. 921, 98th Cong., 1st Sess., *reprinted in* 129 CONG. REC. S3918 (daily ed. Mar. 24, 1983) (introduced by Sen. Hatch).

83. *In re* Bendectin Products Liability Litigation, 749 F.2d 300 (6th Cir. 1984).

84. *See, e.g., In re* "Agent Orange" Product Liability Litigation, 100 F.R.D. 718, 725-29 (E.D.N.Y. 1983), *mandamus denied*, 725 F.2d 858 (2d Cir.), *cert. denied*, 465 U.S. 1067 (1984);

class action may prove useful in controlling such damages—assuming that they are not eliminated as a matter of policy.[85]

We must also remember that class actions are not as well developed in most states as they are in the federal courts. There is, too, the unresolved question in most states of whether state law will permit a state class action judgment to bind out-of-state class members.[86] Such issues can be laid to rest by state legislation and court rule. The Supreme Court in *Phillips Petroleum Co. v. Shutts*[87] has made it clear that the federal Constitution is no barrier to state expansion of class actions. Congress arguably can extend state court jurisdiction—including personal service— to the limits of fully expanded federal court jurisdiction.[88] After all, Congress theoretically has the power to eliminate all the federal courts except the Supreme Court, and to leave all jurisdiction in the state courts except for the Supreme Court's limited original jurisdiction.[89]

There are a series of dark and arcane issues on the border of procedure and ethics that need to be addressed in the class action area. How are these mass tort cases to be financed? How are the lead lawyers to be selected?[90] How paid?[91] How is liaison with

cf. In re Asbestos School Litigation, slip op. No. 83-0268 (E.D. Pa. Sept. 28, 1984) (discussion of punitive damages in class actions).

85. *See supra* notes 80-82 and accompanying text (discussion of victim compensation plans).

86. State jurisdictions are split on whether a multistate class will be certified in state court. *Compare* Phillips Petroleum Co. v. Shutts, 105 S. Ct. 2965 (1985) (Kansas courts could obtain jurisdiction through a class action over nonresidents, but Full Faith and Credit Clause prohibited application of Kansas law to all transactions) and Miner v. Gillette, 87 Ill. 2d 7, 428 N.E.2d 478 (1981), *cert. dismissed,* 459 U.S. 86 (1982) (upholding certification of out-of-state class members); *with* Klemow v. Time, Inc., 466 Pa. 189, 352 A.2d 12, *cert. denied,* 429 U.S. 828 (1976) (certification of class denied) and Feldman v. Bates Mfg., 143 N.J. Super. 84, 362 A.2d 1177 (1976) (reversing order of certification).

87. 105 S. Ct. 2965.

88. For example, service of process under the Federal Interpleader Act, 28 U.S.C. § 2361 (1982), is nationwide, providing a party who may be subjected to multiple liability with a remedy in the federal courts which would be unavailable in any state court.

In a recent Rhode Island case involving federal environmental statutes, nationwide service of process was denied. *See* Violet v. Picillo, 613 F. Supp. 1563 (D.R.I. 1985). The court noted that although nationwide service of process might further the goals of the Comprehensive Environmental Response, Compensation, and Liability Act, such extended service should be approved by a legislative, not a judicial, decision. *Id.* at 1573.

89. U.S. Const. art. III.

90. *See supra* note 39.

91. Attorneys' fees have raised a number of questions. *See, e.g., In re* "Agent Orange" Product Liability Litigation, 611 F. Supp. 1396 (E.D.N.Y. 1985); 611 F.Supp. 1452 (E.D.N.Y. 1985). It seems that adequate but not exorbitant fees are essential to induce

class members to be maintained? Who decides when and how to settle? The answers to date are far from satisfactory. Whether better answers are possible is not clear.

C. *Attorney Cooperation—Specialists and Lead Attorney.*

In many instances, attorneys have learned to cooperate among themselves, to select specialists as lead attorneys and to coordinate a series of cases and potential cases with little or no assistance from the courts.[92]

D. *Private Settlements—Ad Hoc and Institutional.*

A number of institutions for mediation and settlement have assumed an increased role in dispute resolution. How successful they will be in cases involving many claimants whose only relationship with each other is the common disaster is not clear. But the attempt to work out private settlements in the asbestos cases,

competent lawyers to take cases with merit, but how this is to be accomplished given the risks and uncertainties is not clear.

A recent speech on malpractice litigation by the present author noted:

> At the high end of the scale, attorneys' fees in some cases are much too large. The transactional costs in this type of litigation are too great. The Greater New York Hospital Association estimates that only 20% of the amounts spent on malpractice is retained by the injured person. While the Association is an interested party, this estimate is not substantially out of line with those resulting from studies in other tort fields.

J. Weinstein, *supra* note 54, at 6.

92. Voluntary cooperation of this sort occurred in the litigation involving MER/29, a drug marketed between 1956 and 1962 for use in lowering cholesterol levels. A correlation between cataract development and use of the drug was found. Over 1,500 civil suits were filed against manufacturers of the drug. A voluntary group was formed by plaintiffs' attorneys to serve as a clearinghouse for the litigation. Over 288 member lawyers or law firms paid between $100 and $300 for assistance from the group which concentrated mainly on managing the discovery process. *See* Rheingold, *The MER/29 Story—An Instance of Successful Mass Disaster Litigation*, 56 CALIF. L. REV. 116 (1968).

Other examples of voluntary coordination include the formation of the Dalkon Shield Group in 1974; the DES cases; and the actions against Chevrolet for motor mount failure. *See* Rheingold, *Mass Disaster Litigation and the Use of Plaintiffs' Groups*, LITIGATION, Spring 1977, at 18.

One attorney active in mass tort litigation noted that "it is necessary in almost all cases against large corporate defendants, such as the chemical and drug manufacturers, to put together a syndicate of lawyers from different firms around the country in order to come up with the money necessary to perform the massive amount of discovery vital to winning a case." *Annual Meeting of Association of Trial Lawyers of America*, 54 U.S.L.W. 2094, 95 (Aug. 13, 1985). The need for such cooperation is apparent in light of the complexity of many of these cases. *See Megatrials*, Nat'l L.J., Mar. 25, 1985, at 1, col. 2.

for example, is worth watching.[93] Work on dispute management at the Center for Public Resources and various arbitration agencies may prove useful.[94]

One difficulty raising serious questions about private settlements in multiparty cases is determining who can speak with authority for each side—an important problem worthy of a separate full discussion. The jockeying among plaintiffs' attorneys for control and for fees is well-known.[95] On the defendants' side similar

93. *See supra* note 51 (discussion of the Wellington asbestos proposal).

94. The Center for Public Resources (CPR) is initiating efforts to develop pragmatic methods for reducing the social and economic costs of corporate legal and regulatory disputes. It recently published a manual presenting papers on corporate dispute resolution issues. Of particular interest is a paper on disputes involving science and technology. *See* Nyhart & Heaton, *Proceedings of the Task Force Workshop on Disputes Involving Science and Technology*, in CORPORATE DISPUTE MANAGEMENT 389 (1982).

Courts are now becoming active in alternative dispute resolution:

> Under rule 53 of the Federal Rules of Civil Procedure, courts are authorized to appoint special masters "to secure the just, speedy, and inexpensive determination of every action." Traditionally, special masters have been used as fact finders, charged with conducting hearings and making findings of fact in complex, fact-intensive litigation. More recently, Rule 53 has been used as authority for the appointment of settlement masters to help mediate between the parties in complex, multi-party disputes. Settlement masters are effective for the same reasons that traditional mediators are effective. The difference is that through the use of Rule 53, the court can greatly assist the parties in mediation.
>
> . . .
>
> Some court-administered Alternative Dispute Resolution mechanisms should be organized on a district-wide level. Among these is court-annexed arbitration. Several federal courts have adopted local rules providing for mandatory, non-binding arbitration. A pilot program—one of ten in the Federal courts—is due to start operating soon in the Eastern District. Money to finance it is being made available by the Administrative Office because the Chief Justice is particularly interested in encouraging this practice. Under the program, all cases involving claims for money damages only in an amount of $50,000 or less will be referred to a panel of three arbitrators. Any party dissatisfied with the arbitrators' decision will have the right to demand a trial de novo. At the trial de novo, evidence concerning the conduct or conclusion of the arbitration proceeding will be inadmissible.
>
> The court-annexed arbitration program is being tried in the Eastern District because it appears to have worked well elsewhere. Similar programs in other Federal District courts—particularly the Eastern District of Pennsylvania—have reduced the number of cases going to trial by as much as 50%.

J. Weinstein, Warning: Alternative Dispute Resolution May be Dangerous (forthcoming in Litigation).

95. *See Representatives for Future Claimants Approved*, Legal Times, Mar. 4, 1985, at 10, col. 1 (discussing appointment of a representative for future asbestos claimants in Johns-Manville's bankruptcy proceeding).

struggles also take place, with insurance companies often fighting for control of litigation and protection from liability exposure.

E. *Court Administration and Personnel.*

Federal courts in particular have enhanced their capacity to manage complex litigations through the use of masters and magistrates to supervise discovery,[96] decrees and settlement.[97] Availability of special funds for added clerks and secretaries also makes it easier to supervise a major litigation. The ability to call in special court-appointed technical experts under Rule 706 of the Federal Rules of Evidence is helpful.[98] A state judge who takes

96. For example, in *Haygood v. Olin*, Doc. No. 83-5021, a special master assisted in the handling of a massive toxic tort case based upon DDT exposure in Alabama. Strasser, *supra* note 44, at 27. The special master designed a case-management system for discovery involving over 9000 plaintiffs. Of the plan one defense counsel noted:

> Without the master's plan the extensive discovery in the case might have been impossible. . . .The court might not have permitted taking 9000 plaintiff's depositions. Even had the court been willing to go along with such a massive project, the cost would have been prohibitive.

Id. See also articles cited, *supra* note 44.

97. A special master prepared an extensive settlement proposal in the Agent Orange litigation. *See* REPORT OF THE SPECIAL MASTER PERTAINING TO THE DISPOSITION OF THE SETTLEMENT FUND, *In re* Agent Orange Products Liability Litigation, 580 F. Supp. at 690.

98. One recent example of the use of an expert by a judge was United States District Judge Merhige's retention of a financial expert to help him determine whether to certify a class action in the Dalkon Shield Litigation. *Judge Plans to Hire Expert in Robins Case,* Washington Post, Aug. 12, 1985, at Bus. 3, col. 3; Hoenig, *Drawing the Line on Expert Opinions,* N.Y.L.J., May 22, 1985, at 1, col. 1.

As the author of the present article has noted elsewhere:

> Courts have been reluctant to invoke use of their power to appoint neutral experts, but such experts can be indispensable in ensuring proper disposition of complex cases requiring expert testimony on technical issues. In particular, neutral experts can be helpful in cases involving complex statistical evidence. Courts often have difficulty determining which side's experts to believe because judges are not sufficiently familiar with proper statistical technique to be able to identify improprieties. A neutral expert can analyze each side's statistical evidence and then explain to the judge or jury the strengths and weaknesses of each party's statistical case. Besides helping to ensure a more just outcome, neutral experts indirectly help encourage settlements. Litigants with weak cases will be less likely to go to trial in hopes of fooling the finder of fact with an impressive but specious statistical display when they know that a neutral expert will be there to demonstrate the flimsiness of their claims.

Weinstein, *supra* note 94.

We will need to reevaluate the use of independent scientific experts, perhaps drawing on the West German model. Some commentators have suggested expanding the use of experts to assist judges, particularly in the area of review of agency decisions. For example, one proposal would create a group of technical experts who would review and summarize

responsibility for a joint federal-state litigation must be given necessary aid and facilities. But how is financing to be arranged when state court budgets are tight? How should the financial burden be allocated between federal and state budgets? Such mundane problems need consideration.

F. *Compensation Schemes and Legislated Limits on Liability.*

A variety of legislative compensation schemes have been developed.[99] The workers' compensation model is useful, but modest compensation provisions combined with a failure to adjust for inflation and new kinds of injuries have unfortunately led to increased pressure to circumvent the statutes by suing persons other than employers.[100] It is, I think, shocking that only 40% of workers' wages lost due to occupational diseases are replaced and only 5% of the replacement comes from workers' compensation.[101] Still, the workers' compensation model was helpful, for

technical data in the record and serve as an intermediary between judges and other technical experts. Trubatch, *Informed Judicial Decisionmaking: A Suggestion for a Judicial Office for Understanding Science and Technology*, 10 COLUM J. ENVTL. L. 255 (1985).

Some of the work of the National Research Council, such as that of the Panel on Statistical Assessments as Evidence in the Courts, may also be helpful. *See* Draft Recommendations of the Panel on Statistical Assessments as Evidence in the Courts (May 1985) (on file in the office of the *Columbia Journal of Environmental Law*).

99. For example, Workers' Compensation and Black Lung Compensation.

100. *See supra* note 29.

101. A Department of Labor Report on Occupational Diseases addresses the adequacy-of-compensation issue:

> — A general measure of the adequacy of compensation for occupational disease victims can be ascertained by examining the extent to which lost earnings are replaced. Such data show that public and private income support programs replace about forty percent of the wages lost by individuals who are severely disabled from an occupational disease, compared with a sixty percent replacement rate for occupational injury victims. The major source of extra income support received by occupational injury victims is workers' compensation.
> — The major sources of income support for those severely disabled from an occupational disease are: social security (fifty three percent), pensions (twenty-one percent), veterans benefits (seventeen percent), welfare (sixteen percent), workers' compensation (five percent), and private insurance (one percent).
> — Not all of those severely disabled from an occupational disease receive income support, while some receive support from more than one program. Among those severely disabled from an occupational disease, one out of every four receive no income support payments. One in every three receive multiple benefits.

UNITED STATES DEP'T OF LABOR, AN INTERIM REPORT TO CONGRESS ON OCCUPATIONAL DISEASES 2-3 (1980).

example, in designing legislation to compensate coal miners for black lung disease.[102]

Were workers' compensation legislation modernized, workers injured by products such as asbestos would collect only workers' compensation, albeit at more realistic payment levels. Third party suits against asbestos suppliers could then be eliminated without shocking our sense of fairness.

A general compensation plan is feasible. In New Zealand, for example, a form of socialized medicine provides protection.[103] Other compensation can be provided for victims who meet a means test, and additional protection could be made available through insurance carried by those who can afford it. In the United States, actual and threatened litigation attributable to asbestos, toxic substances and other pollutants has stimulated proposals for legislation with a compensation component.[104]

The cost of the black lung legislation has apparently caused some members of Congress to become disenchanted with this approach. Any general compensation plan as broad as that of New Zealand would seem to be similarly unpalatable to our present leaders. In addition, complex overlapping collateral benefits available through workers' compensation, pensions, private insurance, fringe employment benefits, Medicare, Medicaid, Aid for Families with Dependent Children, Social Security disability, Supplemental Security Income and other programs make devising a rational scheme of compensation for those in the United States who need help difficult. A small damages award, for example, may cause loss of social welfare benefits worth more than the recovery.

The Superfund Study Group has proposed a two-tier system for hazardous waste cases that provides victims with a workers' compensation-type scheme while allowing those more seriously

102. Black Lung Benefits Act, 30 U.S.C. § 901 (1982). *See supra* note 28.

103. *See* Klar, *New Zealand's Accident Compensation Scheme: A Tort Lawyer's Perspective*, 33 TORONTO L.J. 80, 81 (1983).

The act prohibits suits in New Zealand for personal injury or death by accident in New Zealand, replacing tort law compensation with "a compulsory, universal social insurance program." *Id.* at 81, 85.

104. *See* Asbestos Workers' Recovery Act, H.R. 5966, 98th Cong., 2d Sess. (introduced in Congress June 28, 1984 to provide prompt, exclusive, and equitable compensation, as a substitute for inadequate tort remedies for disabilities or death resulting from occupational exposure to asbestos). *See also* S. 2708, 98th Cong., 2d Sess. (introduced May 23, 1984 by Senators Percy, Pell and Inouye). See also the victim compensation proposals cited, *supra* note 82.

injured to sue using standard tort law.[105] This proposal is interesting but flawed by its failure to resolve the conflict between the two systems.[106] Moreover, the combination of federal substantive compensation law with a state compensation bureaucracy would be clumsy. To date, there has been no proof that a sufficient number of cases exists to warrant such a scheme.[107] Given the small number of cases in which causality can be shown—even with the aid of presumptions—federal courts, alone or together with state courts, can handle the situation at the moment. This is true whether a tort or compensation plan is adopted so long as the cases arising from any one local toxic dump are consolidated. Huge increases in cases in the future, however, could overburden the courts, making the Superfund proposal or similar schemes more attractive.

The viability of a compensation scheme would probably depend on the ability of the distribution system to cap liability and to limit recovery. Any limitation on liability constitutes to some extent a subsidy to the industry protected because those injured will not collect compensation otherwise chargeable as a cost to that industry. A cap is a kind of internal tariff paid by the injured. Like a tariff or subsidy, however, it may be justified as a matter of national policy—particularly in light of the current concerns of the insurance industry and the movement toward cancelling liability policies.[108]

Many of the proposed compensation schemes and plans for limitation of overall liability probably do not fully take into account municipal and other governmental costs such as welfare, disability compensation, hospital and civic emergency services.

105. *See* STUDY GROUP PROPOSAL, *supra* note 6, at 196.

> In broad outline, the Study Group recommends a two-tier system of remedies. The first tier, which is expected to be the part of the system most heavily relied on by persons injured by exposures, will provide an administrative compensation scheme without showing of fault. The administrative compensation scheme would be established by federal legislation, but would be operated largely by the states pursuant to federal law . . . . The second tier would keep the existing system of tort law in several states, with some recommendations for procedural and other improvements.

Id. at 197.

106. Other commentators are critical of the Study Group Proposal. *See e.g.*, Garrette, *Compensating Victims of Toxic Substances; Issues Concerning Proposed Federal Legislation*, 13 ENVTL. L. REP. (ENVTL. L. INST.) 10172 (1984).

107. *But see Toxic Waste Termed Far Greater Than U.S. Estimates*, N.Y. Times, Mar. 10, 1985, at A1, col. 1 (indicating that EPA may have severely underestimated the number of national priority hazardous waste sites).

108. See articles cited, *supra* note 41.

Because they shift costs from those who cause harm to government entities, schemes like New Zealand's function as a general public subsidy to those causing harm.

Some capped payback mechanism seems desirable to ensure that those causing harm pay a substantial portion of their share of the cost. This is partly for reasons of deterrence, but mainly to internalize costs to society within the industry. Any such cost-shifting scheme should channel costs to one or a few parties at fault, with further cost shifting among other parties also at fault—as between suppliers and a manufacturer, for example—handled privately.[109]

Differences in the amount of compensation received by those injured in relatively minor incidents and those injured in mass disasters could raise equal protection objections. Such objections do not seem persuasive in view of court approval of the distinctions drawn in no-fault automobile and workers' compensation plans, the Supreme Court's approval of the Price-Anderson nuclear disaster compensation cap,[110] and the strong support the Supreme Court has given to legislation designed to protect our national economy.[111]

G. *Claims Commissions.*

A variety of claims commissions have been used in the past to resolve disputes. The claims commission mechanism is particularly suited to dealing with multinational disasters.

The Micronesian claims commission, for example, was created to compensate the "losses of Micronesians directly caused by the hostilities of World War II."[112] In its first stage the commission was a binational organization with representatives from Japan and the United States. Each country donated the equivalent of $5,000,000. In the second phase, a five-person commission com-

109. *But see* Granelli, *The Attack on Joint and Several Liability*, A.B.A.J., July 1985, at 61 (discussing how allowing contribution may lead to the deep pocket paying a disproportionate share of the recovery).

110. *Duke Power Co.*, 438 U.S. 59; *see supra* note 54 (no-fault compensation discussion).

111. The constitutionality of workers' compensation schemes has been upheld under both the federal and state constitutions. For example, in *Booth Fisheries Co. v. Industrial Comm'n of Wisconsin*, 271 U.S. 208 (1926), the Wisconsin Workman's Compensation Act was upheld despite the claim that application of strict liability denied due process to employers. Similar issues of constitutionality have been raised concerning automobile accident no-fault compensation plans. *See supra* note 54.

112. FINAL REPORT OF MICRONESIAN CLAIMS COMMISSION, PART II at 79 (1976).

posed of two Micronesians and three Americans adjudicated claims against the United States, paying those claims from a $20,000,000 fund provided by the United States. Awards were based upon preestablished values, for example, $50 for a 14-foot ocean-going outrigger sailing canoe, and $5 for a ukulele.[113] The Iranian Claims Commission is another illustration of the use of the claims commission mechanism in an international context.[114]

In the United States, a claims commission was used in connection with the dispute over Tris, a chemical fire retardant used in clothing. The government, through misguided regulations, caused business losses and paid the bill through special Claims Court procedures.[115]

Claims commissions have usually involved either a large fund available in advance or a government's large resources. Can this device be adapted to situations in which the price is paid by private litigants and is not ascertainable at the outset of the litigation? As in the compensation scheme area, fixing maximum liability by legislation could work. We must decide whether a limit on the total amount of liability can be justified and, if so, at what level.

H. *International Conventions.*

On an international scale, there is a trend toward individual nations taking more responsibility, through treaties and agreements, for actions that have international implications. The Bhopal disaster will probably increase pressure in this direction. The International Convention on Civil Liability for Oil Pollution requires nations that own or license oil tankers to be strictly liable for damages resulting from spills.[116] Such nations are required to

113. *Id.* at 86.

114. *See* Selby & Stewart, *Practical Aspects of Arbitrating Claims Before the Iran-United States Claims Tribunal,* 18 INT'L LAW. 211 (1984).

115. The Tris statute gives the United States Claims Court jurisdiction to "hear, determine and render judgment upon any claims for losses sustained by a producer, manufacturer, distributor, or retailer of children's sleepwear" when the losses were caused by use of Tris to comply with federal law. The act requires proof of proper disposal of treated fabric and specifically rejects the use of class actions before the court. *See* United States Court of Claims, Jurisdiction—Tris Sleepwear, Pub. L. No. 97-395, 96 Stat. 2001-04 (1982).

116. The 1969 International Convention on Civil Liability for Oil Pollution, *done* Nov. 29, 1969, 9 I.L.M. 45 (1970), which the United States has yet to ratify, sets maximum liability limits and places all liability for oil pollution damage on the ship owner. Because this convention did not provide for complete compensation, the International Convention

make contributions to a fund that will be used to compensate those suffering accident damage. The 1960 Paris Convention in the Field of Nuclear Energy covers a number of European states much as the Price-Anderson Act governs liability in the United States.[117]

International efforts in pollution liability have not been entirely successful outside the oil spill area.[118] Despite Canadian and Scandinavian efforts, no agreement has been reached on assessing liability for acid rain damage.[119] The 1979 Convention on

on the Establishment of an International Fund for Compensation for Oil Pollution Damages, *done* Dec. 18, 1969, 11 I.L.M. 284 (1972), was created to fill in the gaps in the 1969 convention. The Fund was established through contributions assessed on contracting states receiving oil at ports.

The United States has signed a claims settlement agreement with the parties involved in the 1979 Sedco oil well blowout and spill in the Gulf of Mexico. *See IXTOC Agreement Between Sedco and the United States*, 22 I.L.M. 580 (1983).

117. The Convention on Third Party Liability in the Field of Nuclear Energy (Paris Convention), signed July 29, 1960, has operated the channeling concept [for liability] at an international level successfully for almost a quarter of a century. This system. . . [involved] . . . (1) strict but exclusive liability, (2) limitation of liability (3) compulsory financial security and (4) a government-financed excess liability fund.

STUDY GROUP PROPOSAL, *supra* note 6, at 263.

118. Litigation has at times been successful in resolving international disputes. *See* United States v. Canada, 3 R. Int'l Arb. Awards 1911 (1941) (Trail Smelter). This case arose out of damage done to United States crops, pasture lands, trees, agricultural interests, and livestock by fumes from a privately-owned smelting plant in British Columbia. The claim was submitted to an arbitral tribunal that existed under a 1935 convention between the United States and Canada. The tribunal held that the case involved a controversy between two governments, assumed jurisdiction, awarded damages of $78,000 to the United States and prescribed a detailed permanent regime for the smelter which included maximum permissible levels of pollution.

For the most part, however, efforts to determine international liability have been futile. *See* G. WETSTONE & A. ROSENCRANZ, *supra* note 38, at 156-163; J. CARROLL, ENVIRONMENTAL DIPLOMACY (1983) (examining Canadian-United States transboundary environmental relations). *But see* State of New York v. Thomas, 613 F. Supp. 1472 (D.D.C. 1985) (granting summary judgment to plaintiffs in a suit by northeastern states to compel the EPA to comply with Clean Air Act by requiring midwestern states to abate transnational boundary pollution of eastern Canada).

119. *See* G. WETSTONE & A. ROSENCRANZ, *supra* note 38, for a recent discussion of international efforts in the area of acid rain.

The available mechanisms offer no effective recourse for nations seeking redress for transboundary pollution problems. Domestic suits are too limited in their scope. Diplomatic channels are, in general, not adequate to promote the changes in national energy and environmental policies which may be necessary to avoid widespread environmental damage. The international legal structure offers useful principles of environmental responsibility, but they are neither sufficiently defined nor sufficiently enforceable to support effective application to specific controversies. Finally, the international Clean Air Act provisions in the United States and Canada, while admirable

Long-Range Transboundary Air Pollution includes pledges by each nation to limit air pollution emissions.[120] No specific emission limits are set, however, and no liability is imposed for violation of the pledges. Many similar agreements exist, but it is questionable whether any of these provide appropriate vehicles for compensation if injuries occur.[121]

in their intent, are too generally formulated and too vulnerable to domestic political pressures to yield the changes in national policy needed to address transboundary pollution problems.

Id. at 162. *See also* OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, ACID RAIN AND TRANSPORTED AIR POLLUTANTS: IMPLICATIONS FOR PUBLIC POLICY 300-11 (1984).

120. ECE Convention of 1979 on Long Term Transboundary Pollution, T.I.A.S. No. 10591, 18 I.L.M. 1442 (1979). The agreement was signed by all 34 members of the UN Economic Commission for Europe (ECE) and came into force in February, 1983. Signatories to the 1979 Convention—most European countries and the United States and Canada—have agreed to "endeavor to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution using the best technology 'economically feasible.'" F. GRAD, TREATISE ON ENVIRONMENTAL LAW § 13.03 [4][b] (1983).

121. The United States has pledged itself to cooperate in this area. *See* 28 U.S.C. § 1782(a) (1982), which authorizes judicial assistance to foreign tribunals:

Section 1782 reflects Congress' determination to broaden the scope of international judicial assistance afforded by the federal courts. The legislative history stresses international cooperation—having the U.S. adjust its procedures to those of sister nations, thereby providing equitable and efficacious procedures for the benefit of tribunals and litigants involved in cases with international aspects.

53 U.S.L.W. 2410 (Feb. 26, 1985).

Recent commentators have noted that, because of intra-country boundaries, the problems of transboundary liability may go beyond the difficulties of gaining the agreement of individual countries. In Canada, for example, provincial jurisdiction may play an important role. *See* THE AMERICAN ASSEMBLY AND COUNSEL ON FOREIGN RELATIONS, CANADA AND THE UNITED STATES: ENDURING FRIENDSHIP, PERSISTENT STRESS 42 (1985).

This problem is not relevant in the United States because treaties are traditionally supreme over state law. In *Missouri v. Holland,* 252 U.S. 416 (1920), the Supreme Court upheld the Migratory Bird Treaty Act of July 3, 1918, 40 Stat. 755, against a challenge that it unconstitutionally interfered with the rights reserved to the States by the Tenth Amendment. The Migratory Bird Treaty, signed by the United States and Canada, specified hunting seasons as well as other protectionist measures. These are matters usually thought to be within the power of the states. In response to the challenge, the Court noted:

Here a national interest of very nearly the first magnitude is involved. It can be protected only by national action in concert with that of another power. The subject matter is only transitorily within the State and has no permanent habitat therein. . . . We see nothing in the consitution that compels the Government to sit by. . . .It is not sufficient to rely upon the states. The reliance is in vain, and were it otherwise, the qustion is whether the United States is forbidden to act. We are of the opinion that the treaty and statute must be upheld.

Id. at 435. Despite attempts to overturn this decision by constitutional amendment in the 1950's, this reasoning is still authoritative. This would seem to indicate that the federal government will be able to bind the states to the terms of any treaty dealing with transboundary pollution.

I. *Hybrid Government-Sponsored Protection Plans.*

A number of proposed or existing pieces of legislation furnish useful models for dealing with disasters. For example, many statutory safeguards exist for the operation of nuclear reactors, including use of standing advisory committees and provisions for evacuation plans. The United States government requires detailed insurance plans of reactor operators and provides indemnification of up to $500,000,000 for "a nuclear incident" in this country and $100,000,000 for "incidents occurring outside the United States."[122] A "tax" on nuclear power plants pays part of the cost of the government insurance.[123] Congress has empowered federal district courts to provide "a plan for the disposition of pending claims and the distribution of remaining funds" when "public liability may exceed" coverage.[124] Such provisions are reminiscent of proposed European Economic Community proposals to limit liability for any single product liability disaster.[125]

The Legislative Drafting and Research Fund of Columbia University has done extensive work providing studies and draft legislation to deal with the escape of radioactive substances from nuclear power plants and injuries from toxic chemical dumps.[126] We may be at a stage where we can generalize beyond these special cases to other situations.

The proposals of the "Superfund Section 301(e) Study Group" on methods of improving legal remedies for injuries and damages from hazardous wastes are useful though, as I have indicated, inadequate. The 1982 report to Congress resulted from the work of a distinguished panel of lawyers and scholars. The report concludes that there are "identifiable barriers to recovery, and that available remedies may not be adequate to deal with many valid claims that may emerge."[127] It includes a number of separate proposals, including a compensation scheme involving insurance based on an industry tax, a no-fault remedy, changes in state law

122. 42 U.S.C. § 2210(e) (1982). *See* L. ROCKETT, *supra* note 50, at 14.

123. 42 U.S.C. § 2210(f) (1982 & Supp. I 1983).

124. *Id.* at § 2210(o).

125. *See European Countries Adopt Product Liability Directive,* Business Insurance, Aug. 5, 1985. The main purpose of this directive was to harmonize product liability laws between members of the European Economic Community. The directive uniformly imposes strict liability but leaves to the individual member countries the decisions regarding the state-of-the-art defense and caps on compensation.

126. L. ROCKETT, *supra* note 50.

127. STUDY GROUP PROPOSAL, *supra* note 6, at 4.

and individual suits combined with a compensation system.[128] Some of these proposals may be adaptable to other forms of disasters.

J. *Single Specialized Courts.*

Use of specialized courts to assume jurisdiction over a series of related disputes is possible. Congress, for example, has provided for a special court to handle railroad reorganization, and an Emergency Court of Appeals staffed by regular federal judges to deal with price fixing issues during and after World War II.[129] Currently, we have a Temporary Court of Appeals of the United States dealing with oil and gas matters.[130] A special federal court to handle disasters, with judges assigned by the Chief Justice, the

128. *Id.* at 178-254.

129. Emergency Price Control Act of 1942, Pub. L. No. 77-421, 56 Stat. 23 (1942).

130. 15 U.S.C. § 3416(c) (1982). The court has *exclusive* jurisdiction over controversies arising under the emergency provisions of the Natural Gas Policy Act of 1978. 15 U.S.C. §§ 717(u) (1982). The court is staffed by convening a panel from among 29 available federal judges. The current Chief Judge is Judge J. Skelly Wright of the United States Court of Appeals for the District of Columbia Circuit. The Temporary Court of Appeals was orginally established by the Economic Stabilization Act of 1970 and had jurisdiction over price control disputes. *See* 12 U.S.C.A. § 1904, notes (1982).

The United States Foreign Intelligence Surveillance Court is another example of a specialized court. The court is composed of seven federal district court judges from different judicial circuits, designated by the Chief Justice of the United States for a term of seven years. Foreign Intelligence Surveillance Act, 50 U.S.C. § 1803(a) (1982). Individual judges sit approximately every six months. *Id. See also* Kornblum & Jachnacky, *America's Secret Court: Listening In On Espionage and Terrorism,* THE JUDGES JOURNAL, Summer 1985, at 14, 16. The court must authorize all electronic surveillance of foreign powers and agents of foreign powers for foreign intelligence purposes. *Id.*

The Act establishes a court of review consisting of three circuit court judges, similarly designated by the Chief Justice for staggered seven year terms, who sit to hear appeals from the lower court. *Id.*

A proposal for another specialized court, the Environmental Court, was rejected. Section 9 of the Federal Water Pollution Control Act of 1972 directs the President of the United States through the Attorney General to consider the feasibility of an environmental court. Pub. L. No. 92-500, 86 Stat. 816 (1972). The court would have had jurisdiction over any suit that involved a claim under one of a number of designated environmental statutes. The Attorney General chose not to recommend formation of such a court, citing the potential problems of maintaining its case load, determining jurisdiction, and perhaps additional delay. *See* Whitney, *The Case for Creating a Special Environmental Court System—A Further Comment,* 15 WM. & MARY L. REV. 33 (1973); Comment, *The Environmental Court Proposal: Requiem, Analysis, and Counter Proposal,* 123 U. PENN. L. REV. 676 (1975). Whether these problems would have been significant is open to question. Benefits would include the consolidation of judicial energy and expertise. In addition, some consolidation of cases would probably have taken place under the system.

Judicial Panel on Multidistrict Litigation or some other body, is worth considering.

The asbestos litigation might be handled more easily in this manner. Judges from various parts of the country could sit *en banc* or try cases individually as needed. Appeals would then be taken to one Court of Appeals. One possible appellate toxic tort court is the Court of Appeals for the Federal Circuit, which specializes in patents but has a great deal of scientific expertise. It has the best technical-scientific library of any court in the country and its five members typically hire lawyers with scientific backgrounds as clerks.[131] From this perspective, use of the bankruptcy court as a way of centralizing many asbestos litigations was an interesting initiative that achieved part of the goal of a single trial and appellate court.[132]

There has always been a reluctance in the bar and Congress to create specialized courts that may outlive their usefulness and leave federal judges without posts. The objection would not apply to a single national disaster court staffed by generalist judges assigned only as needed. Regular Court of Appeals judges could constitute a majority of the appellate panel of such a court—though Federal Circuit judges experienced in science might play a useful role.

V. PROPOSALS FOR CHANGE

All would agree that we can and should improve safety devices and government and private regulation both here and abroad to limit the frequency and magnitude of disasters. Government regulation and control must serve as the first and main line of defense. The prospect of huge tort recoveries, of course, can be a strong factor in inducing large responsible manufacturers to exercise care. But the threat is unlikely to have any significant deterrent effect on thinly capitalized, "fly by night" operators who may be responsible for a disproportionate number of disasters. Moreover, it can have the undesirable effect of keeping valuable drugs and other products off the market when the benefits of the drugs

131. *See* Letter from the Honorable Howard T. Markey, Chief Judge, United States Court of Appeals for the Federal Circuit (Mar. 7, 1985) (in 1985, of 27 law clerks, 16 had scientific or technical undergraduate degrees) (on file at the *Columbia Journal of Environmental Law*).

132. *See supra* note 53.

to society outweigh the risks.[133] When the public benefits from such products, it should pay a large part of the costs incurred by the relatively few unlucky enough to be injured.

If dangerous products are to be taken off the market and dangerous situations remedied quickly, society must promptly receive and act upon information about injuries.[134] Government regulation and warning label requirements offer the best initial mechanism, one based on information such as that available from Centers for Disease Control studies and from injury reports required by the Food and Drug Administration and other government agencies.

Nevertheless, we must recognize that this prophylactic approach cannot be perfect. Government agencies are often underfunded; the effects of our scientific and technical initiatives are not fully knowable; risks must be taken to obtain the benefits of new advances; and carelessness, ignorance and greed sometimes interfere. Watchdog private consumer and advocacy groups are helpful, but they are generally underfunded, limiting their effectiveness.

Disasters inevitably will occur. Will the law be prepared to meet them in the best way possible?

Some of the proposals for reform that should be considered are relatively simple—for example, the Superfund Study Group's suggestion that obstacles to state court actions be removed.[135] As already indicated, many procedural devices for dealing with such cases have already been developed.[136] Other more innovative approaches need to be considered as well.

At least in instances in which the effect of a toxic substance is potentially widespread, but the causal connection between exposure and specific injuries is uncertain, a national plan of health

133. *See supra* note 42.

134. In the recent Oraflex controversy, debate centered around the light punishment given to the parties responsible for withholding information on the danger of the drug from the public. Newsday, Sept. 9, 1985, at 52, col. 1 (Eli Lilly & Co. fined a "mere" $25,000 for not reporting foreign deaths from the arthritis drug Oraflex while simultaneously seeking federal approval for this arthritis medicine; "The [Justice] department's easy treatment of Lilly trivializes the offense"); Shenon, *Official Says He Barred More Prosecutions at Lilly*, N.Y. Times, Sept. 12, 1985, at A23, col. 1 (Deputy Attorney General overruled staff lawyers' recommendation to prosecute federally three Eli Lilly & Co. officials for failing to disclose Oraflex-related deaths and ailments). Other Lilly officials who were prosecuted pleaded guilty. N.Y. Times, Aug. 22, 1985, at A16, col. 1.

135. STUDY GROUP PROPOSAL, *supra* note 6, at 255-267.

136. *See supra* text accompanying notes 55-132.

insurance and comprehensive disability insurance providing limited protection should be considered. Such a plan would expand upon already existing Social Security and Supplemental Security Income programs. The cost of any increased incidence of disease attributable to a specific product such as benzene or asbestos could be charged back to the industry by the government as a tax. Present workers' compensation and unemployment insurance schemes have such mechanisms. Additional protection would be optional: the middle class could purchase first-party insurance for loss of high earnings, and workers could receive added coverage in the form of employment fringe benefits.

It seems unlikely that such a rational compensation scheme can generate significant support at this time in the United States, although industry, faced with huge liabilities and lack of insurance, may soon rethink its opposition to comprehensive compensation plans. Despite the many problems with the proposal, in my opinion it offers the most elegant—and in the long run the most equitable—solution. The poor would continue to get less than the rich, but they would, as a group, receive more than they do now.

Other steps can and should be taken during the interim period before comprehensive health insurance and general disability payment legislation is adopted. The following proposals should be considered to meet the immediate need.

A. *National Disaster Court.*

At the national level, a Federal National Disaster Court could be authorized. No judges or personnel need to be assigned to it on a permanent basis. The Chief Justice of the Supreme Court could assign Article III judges with expertise in the particular type of litigation involved for temporary duty as needed. In especially difficult cases, a number of trial judges could be assigned at the same time. Clerical and other personnel could be authorized by the Administrative Office of the Federal Courts. Experience already exists in transferring judges and personnel, as, for example, in the anti-drug program in southern Florida and in the visiting judges program in the federal courts.[137]

137. Intercircuit judicial assignments are common. Between February 1 and August 15, 1985, the Chief Justice approved 47 assignments of 38 judges. REPORT OF THE JUDICIAL CONFERENCE COMMITTEE ON INTERCIRCUIT ASSIGNMENTS 1 (Sept. 1985) (available in the office of the *Columbia Journal of Environmental Law*).

This proposal would also conform to the Bar Harbor Resolution.[138] That policy statement recognized the need to assign particular judges with requisite experience to unusually difficult cases.

The questions of what circumstances and what body would trigger the Disaster Court's operation could be handled in a number of ways. The triggering criteria would need to be spelled out.[139] They should be broader than those in the present federal multidistrict litigation law,[140] under which the asbestos litigation was denied multidistrict treatment.[141] The Disaster Court's great power over procedure and choice of law should be activated only

138. The Bar Harbor Resolution is a series of proposals adopted by the Committee on Court Administration "for the purpose of assuring that cases likely to be protracted, difficult, or unusual are not allowed to pend for periods more lengthy than that required for so-called routine cases." ANNUAL REPORT OF THE DIRECTOR OF THE ADMINISTRATIVE OFFICE OF THE UNITED STATES COURTS 70-71 (1972) (Report of the Proceedings of the Judicial Conference of the United States, Washington D.C., Mar. 15 and 16, 1971 and Oct. 28 and 29, 1971).

139. The Price-Anderson Act triggering system may provide a useful analogy. The system is activated when the Nuclear Regulatory Commission (NRC) determines that a nuclear incident is an "extraordinary nuclear occurrence" (ENO). According to NRC regulations, the ENO determination is a two-part test. The first threshold is met when a discharge or disposal constitutes a "substantial amount of source, special nuclear or byproduct material, or has caused substantial radiation levels offsite." 10 C.F.R. § 140.81(b)(1) (1985). The second part of the test requires a determination that "there have in fact been or will probably be substantial damages to persons offsite or property offsite." 10 C.F.R. § 140.81(b)(2) (1985).

The first threshold — presence of radioactivity — is met when there is a perturbation of the environment clearly above that which could be anticipated from normal activities. The second threshold — injury or damage —is met when:

> (1) The Commission finds that such event has resulted in the death or hospitalization, within 30 days of the event, of five or more people located offsite showing objective clinical evidence of physical injury from exposure to the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material, or
>
> (2) The Commission finds that $2,500,000 or more damage offsite has been or will probably be sustained by any one person, or $5 million or more of such damage in the aggregate has been or will probably be sustained, as the result of such event; or $5,000 or more of such damage will probably be sustained by each of 50 or more persons, provided that $1 million or more of such damage in the aggregate has been or will probably be sustained, as the result of such event.

U.S. NUCLEAR REGULATORY COMMISSION, THE PRICE-ANDERSON ACT—THE THIRD DECADE E-3 (1983) (Report to Congress).

Such specific criteria are required because there must be no doubt about when the strict liability provisions of the Act apply. The same certainty would be required of the National Disaster Court.

140. *See* discussion *supra* note 57.

141. *In re* Asbestos Insulation Material Products Liability Litigation, 431 F. Supp. 906, 909 (J.P.M.D.L. 1977) (denying multidistrict treatment of asbestos suits).

in the most extraordinary cases. A disaster sufficient to trigger its operation should be substantial—for example, one that causes at least $500,000,000 in potential damages, injures more than 500 people, and involves the laws of at least two jurisdictions. These parameters—used here only for illustrative purposes—are substantially more than is required to constitute an "extraordinary nuclear occurrence," which triggers such matters as waivers of defenses by the nuclear plant operator.[142]

The president and governors now declare disasters for many purposes, including loans and emergency services.[143] Nevertheless, allowing the executive to determine the existence of a disaster for judicial purposes might create too many political pressures and implicate separation of powers issues.

The present multidistrict panel would be an appropriate body to decide whether the criteria have been met for Disaster Court operation. Once the panel made the determination, the Chief Justice could immediately transfer judges to the case as needed.

The transferee judge or judges could be authorized to compel immediate temporary emergency payments to those in need, similar to the way payments were authorized following the Three Mile Island incident.[144] A well-run system would, in the Bhopal case, have made similar payments and paid basic medical and death benefits within days of the occurrence.

Compensation should be limited to exclude punitive damages. Pain and suffering awards beyond fixed limits must be excluded for policy as well as practical reasons.[145]

142. *See supra* note 139.

143. *See supra* note 79.

144. In response to the Three Mile Island nuclear plant accident, representatives of the nuclear insurance industry arrived on March 29, 1979 to ascertain the necessity of an emergency claims office. When the Governor of Pennsylvania advised certain persons to evacuate the area, the insurance companies paid the living expenses of people who complied. A total of $1,217,000 in evacuation claims was paid to some 3,170 claimants. In addition, $92,000 in lost wage claims was paid. U.S. NUCLEAR REGULATORY COMMISSION, *supra* note 139, at A-7. *See also* L. ROCKETT, *supra* note 50, at 28.

145. *See supra* notes 48-52. The movement to put a cap on punitive damage awards has already begun. *See Montana Puts Cap On Punitive Damage Awards,* Nat'l L.J., Apr. 22, 1985, at 7, col.1; *Punitive Award Rejected in Market Share Case,* Nat'l L.J., May 27, 1985, at 6, col. 1. Commentators have discussed the problems created by large punitive damage awards. Sullivan, *Multiple Punitive Damage Awards in Huge Cases Pose Risks,* Nat'l L.J., Jan. 3, 1985, at 11, col. 1.

The Supreme Court, however, recently limited federal preemption of punitive damage awards under state law. In *Silkwood v. Kerr-McGee Corp.*; 464 U.S. 38 (1984), the Supreme Court reversed a lower court denial of punitive damages, finding that the Price-Anderson

Where the trial should take place would be up to the new court. Knowing in advance who would hear appeals and that there is a requirement that appeals be expedited could save months or years of litigation. Appeal to a single court would be desirable. A panel of judges could be preselected by the Chief Justice, or an appeals court could be designated by law—either the United States Court of Appeals for the District of Columbia Circuit or a special appellate court with some particular scientific expertise should be considered. In some cases, directing appeals to the circuit in which most of the trials are centered might be desirable.

The advantage of using a temporary Disaster Court staffed by temporarily assigned judges, rather than seeking more radical reform or federalization of the toxic tort system, is that a special disaster court would operate only where the present system was not doing an acceptable job. Hence the Disaster Court probably would not be convened for airplane crashes and other situations that are successfully handled under a conventional multidistrict referral system.

B. *Switching Cases Among State and Federal Courts.*

When disasters are involved, a body such as the Judicial Panel on Multidistrict Litigation should have power to switch cases to and from federal and state courts. The panel could include representative state judges for this purpose in addition to its normal membership of federal judges. Why should there not be joint federal-state trials? So far as the public is concerned we have one judicial system, which should be integrated to improve efficiency. Joint state-federal tribunals might be put in place by the Chief Justice of the United States and Chief Judge of an affected state's highest court.[146]

C. *Binational and Multinational Tribunals.*

At the international level, there should be a joint Canada-United States tribunal prepared to try cases in either country according to the tribunal's own choice of law rules.[147] Rights such as trial by jury arguably could be implicated, but as indicated in

Act did not preempt such an award. In light of *Silkwood*, the preemption of state law punitive damages provisions must be express.

146. *Cf.* Weinstein, *supra* note 71, at 1-29.

147. Some attempts along this line have already been made; however, many commentators believe that so far these transboundary efforts have not been successful. *See, e.g.*, G.

the Iranian cases, the treaty-making power can be used to channel disputes into international tribunals without offense to such constitutional procedural rights.[148]

Who could invoke the jurisdiction of such a tribunal? Perhaps a case could be referred to a binational tribunal by proclamations of the Chief of State of the two nations. The Chief of State's control over foreign relations makes this locus of control desirable.

Use of one nation's courts by other nations and their nationals is possible and has been utilized in a number of instances.[149] India has just adopted a law authorizing the central government to sue in United States courts on behalf of all those injured in Bho-

WETSTONE & A. ROSENCRANZ, *supra* note 38, at 123-130. Other commentators are more encouraging:

> The United States could deal differently with some of the possible problems by international agreement, depending on the nations involved. Nations receiving dangerous weapons from the United States Government should assume the risks of having them, and the agreements of transfer should expressly preclude claims against contractors, just as they already preclude claims against the United States Government. The NATO nations might extend the Status of Forces Agreement to apply to accidents caused by weapons of NATO members that are not presently covered by the agreement; it would be appropriate to apply the loss-sharing principles embodied in the agreement, or perhaps to extend them to distribute among all NATO members the financial burden of catastrophic losses from accidents caused by NATO military activities. Bilateral agreements on the NATO model might similarly be extended to apply to accidents not now covered by them.
>
> Other types of agreements may also be possible, at least with some other nations not sharing common military activities or purposes. Such agreements might express the existence of an American obligation to make some compensation for accidents as well as the principle that both the United States and the nation affected by catastrophe would participate in the determination of claims.

CATASTROPHIC ACCIDENTS, *supra* note 1, at 21.

One model of successful transnational dispute resolution is the International Center for Settlement of Investment Disputes (ICSID). This organization exists pursuant to a convention between the members of the International Bank For Reconstruction and Development. Convention on the Settlement of Investment Disputes Between States and Nationals of Other States, Oct. 14, 1966, 17 U.S.T. 1270, T.I.A.S. No. 6090, 575 U.N.T.S. 159. The Convention sets procedures for arbitration and conciliation of international disputes concerning investments.

An international consulting engineering association is working with international dispute resolution groups to limit future litigation over contract disputes. Kristensen, *The Contribution Lawyers Make,* INTERNATIONAL CONSULTING ENGINEER 2 (1983).

148. *See* Dames & Moore v. Regan, 453 U.S. 654 (1981) (upholding the settlement of the Iranian claims).

149. *See, e.g.*, Michie v. Great Lakes Steel Division Nat'l Steel Corp., 495 F.2d 213 (6th Cir. 1974), *cert. denied*, 419 U.S. 997 (Canadian citizens' action against United States pollutors); United States v. Hooker Chem. & Plastics Corp., 776 F.2d 410 (2d Cir. 1985) (Canada awarded no relief but allowed to intervene in a nuisance action against a chemical company).

pal.[150] But, as the Wetstone and Rosencranz study of acid rain problems indicates, such recourse to national courts has not generally been helpful in massive pollution or tort situations.[151] Some bilateral or multilateral planning for these contingencies among the nations of the world seems necessary.

D. *Planning for Disasters.*

Within the limits of due process and equal protection, we need to consider new ways of handling immense new problems. Failure to grow and change may create far more serious dangers to our legal system than would new ideas that are consistent with historical patterns.

Would it not be useful for the American Bar Association with its hundreds of thousands of responsible members to set up a special committee to consider this issue of disasters in its most general as well as particular aspects? Many of its committees are already working in related areas.

Academic input can be helpful. Among the institutions that have taken a leading role in addressing the mass tort problem are Columbia Law School, through the Legislative Drafting Research Fund under the direction of Professor Frank Grad, which was responsible for many of the studies leading to the nuclear power plant insurance act and the Superfund Report, and the Parker School of Columbia University, which recently held an all-day session on the Bhopal problem; Yale Law School, which recently held a conference on tort law; and the Institute for Health Policy Analysis of Georgetown University, which recently held a conference on Causation and Financial Compensation.

Any study group probably should include scientists, political scientists and sociologists, in addition to lawyers, judges and law

150. *New Bhopal Law May Affect Future Role of U.S. Lawyers,* Nat'l L. J., Mar. 11, 1985, at 4, col. 3.

The law directs the central government to frame a "scheme" for registering claims and collecting and disbursing compensation for victims. It also includes the power to settle and to represent individuals with suits filed. *Id.*

151. G. WETSTONE & A. ROSENCRANZ, *supra* note 38, at 45-162. Wetstone and Rosencranz noted in part that:

> [courts] are of far less utility in the context of efforts to prevent the large-scale environmental effects associated with overall transboundary pollution flow, especially where remedial actions would require significant changes in national air pollution policies.

Id. at 160.

professors. Inclusion of representatives from Mexico, Canada and other countries might be helpful as well.

It is particularly fitting for American lawyers to take the lead. Our bar and adversarial system, our high awards for damages, our contingent fee system, and our encouragement of plaintiffs through small cost barriers and broad discovery, all encourage litigation to flow towards our courts whenever an American connection exists. Given our general view that plaintiff's choice of forum prevails, even concepts of *forum non conveniens* provide only a limited barrier to litigation here.

Colleagues from other nations of the world, whether from the civilian European countries, Mexico, or common law countries such as Canada or England, may wish to participate on some basis. Draft binational treaties to address such problems as the Bhopal incident or transnational boundary pollution with Canada or Mexico would need to be considered by representatives of these other countries.

VI. CONCLUSION

Substance and procedure at the state, national and multinational levels are implicated in answering some of the questions posed by forthcoming disasters. Sometimes the American bar is chided for being too strong, too talented, and too expensive. Is this, perhaps, a field where its great skills can help serve all mankind?