INDIVIDUAL ACTION AND COLLECTIVE RESPONSIBILITY: THE DILEMMA OF MASS TORT REFORM

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URING the past two decades we have witnessed a series of large-scale accidents almost unprecedented in their frequency and scope: the collapse of the Buffalo Creek dam;¹ the MGM-Grand Hotel fire;² the fall of the skywalk at the Hyatt Hotel in Kansas City;³ the asbestos "crisis";⁴ thousands of tort claims for injuries allegedly caused by such drugs as Bendectin⁵ and DES;⁶ suits by servicemen and their families for damages resulting from diseases allegedly caused by exposure to Agent Orange in Vietnam;⁷ and other disasters so noteworthy that the names of the places they occurred have come to signify the events themselves—Love Canal, Three Mile Island, Bhopal. Injuries on this scale occurred in the past, although less often and usually with less impact;⁸ however, only recently has the legal system become preoc-

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¹ See G. Stern, The Buffalo Creek Disaster (1976).
⁵ See In re Bendectin Prod. Liab. Litig., 749 F.2d 300 (6th Cir. 1984).
⁸ A number of factors probably explain why mass tort claims were not a fixture on the legal scene until recently. The most important is that successful claims for diseases with long-latency periods require the development of considerable medical knowledge about causation—a development that did not occur until recently. Moreover, the legal system had to create a "discovery" exception to statutes of limitations to permit the instigation of such suits. See, e.g., Scott v. Rinehart & Dennis Co., 116 W. Va. 319, 180 S.E. 276 (1935) (period for bringing claim for silicosis had expired before plaintiff could have known he had con-
ocupied with mass injuries and the problems posed by the litigation they engender.

Notwithstanding the burgeoning legal literature on the subject, basic issues remain unresolved. Are “mass” torts qualitatively different from “traditional” accidents, or are they only quantitatively different? What are the legal characteristics of mass torts? Are the legal issues posed by mass torts independent of each other or are they connected in a way that clarifies the concept of a mass tort itself? Without answers to these questions, the search for solutions to the perceived problems of mass tort litigation is doomed to be without direction.

I maintain that the “mass tort” is not a single, unitary phenomenon, but a name given to a series of very different kinds of accidents posing a cluster of different legal problems. The only obvious link between all these accidents is the large number of people injured in each. As a consequence, proposals to solve “the” mass tort problem ultimately target only individual features of the cluster of issues that characterize mass tort litigation, and leave the other features untouched. Much of the tort reform legislation enacted state-by-state during the past two years reflects this ad hoc approach.

Despite the disparate nature of the legal problems that characterize mass torts, many of the possible solutions to these problems must wrestle with similar concerns. Each must resolve a dilemma about the nature of legal responsibility that is presently unrecognized and therefore unsettled: the choice between individual and

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In contrast, mass tort claims for injuries caused by sudden accidents were sometimes brought in the past. See, e.g., Jacobs v. Ringling Bros.-Barnum & Bailey Combined Shows, Inc., 141 Conn. 86, 103 A.2d 805 (1954) (detailing suit arising out of 1944 circus fire that killed 169 persons). Criminal actions were frequently brought in mass accident cases as well. See, e.g., Commonwealth v. Welansky, 316 Mass. 383, 55 N.E.2d 902 (1944) (manslaughter charge arising out of “Cocoanut Grove” fire); People v. Harris, 74 Misc. 353, 134 N.Y.S. 409 (Ct. Gen. Sess. 1911) (manslaughter charge arising out of “Triangle Shirt Waist” fire).

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10 For a catalogue of these reforms, see U.S. Dept't of Justice, Tort Policy Working Group, An Update on the Liability Crisis 65-73 (1987).
collective forms of responsibility. Increasingly, traditional conceptions of individual action and individual responsibility are being called into question by conceptions that overlook differences between individual parties and thereby promote more collective forms of responsibility.

In my view, the move toward collective responsibility in tort law is not, on the whole, a sensible development. The move is creating serious problems for the legal system, and it is confounding the nation’s liability insurance markets. Of course, the move toward collective responsibility is not characteristic of only mass torts; it is at the core of much tort liability, though usually it is well-hidden in conventional tort law. Yet because mass torts pose the dilemma with special severity, they are an especially suitable vehicle for examining it.

In this Article I shall try to clarify the dilemma and the set of choices it generates for the reform of mass tort law. Part I sets out the features of the responsibility dilemma that characterize the search for solutions to mass tort problems. Part II examines the most salient characteristics of the phenomena that tend to be termed “mass torts.” This Part explores the ways in which the responsibility dilemma analyzed in Part I figures in the different problems that trouble mass tort litigation and criticizes several of the developments in this field. Finally, Part III takes up the different non-tort solutions that are available for solving these problems and demonstrates the implications of my analysis for reform of mass tort law.

I. Two Models of Responsibility

Almost all forms of civil liability ultimately are individual. Liability is either imposed on a defendant, who pays the plaintiff to satisfy the judgment, or liability is not imposed and the plaintiff or some collateral source absorbs the loss. Behind this focus on the pocket out of which payment is made, however, lies a world in which different elements of the tort and compensation systems combine to produce more complicated forms of responsibility. Two models of responsibility facilitate an understanding of this less vis-

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ible world; they represent polar examples of phenomena that in practice combine both individual and collective responsibility themes.

Under the model of individual responsibility, injuries have identifiable legal causes, and those responsible for these causes are held liable for their legally defined results. An action (or inaction) produces liability only if, absent that action, injury would not have occurred. It follows that liability can be imposed only for injuries "caused" in this sense. In addition, the model implicitly assumes that those held liable actually bear responsibility by paying damages out of their own pockets. This is a world of people and enterprises with clear identities, of distinct actions that can be ascribed to identifiable parties, of assets that cannot be exhausted by potential or actual liability, and of insurance that can be priced to reflect accurately the probability that the policyholder will suffer a compensable loss.\(^{12}\)

In contrast, the model of collective responsibility is as yet inchoate and underdeveloped, but has increasing explanatory power. Under this regime, injuries often have multiple legal causes, and parties are held liable not only individually but also as members of a group. As a result they may be held liable for damages that another party would pay under the individual model. In addition, in the world of collective responsibility, a party can externalize the risk or cost of liability by declaring bankruptcy or by purchasing insurance that cannot be priced to reflect with accuracy the probability of loss. In all these ways responsibility for the loss in question is shared collectively.

How and when does one of these two models dominate the other? First, in certain settings one model may be a more accurate description of the non-legal world than the other. If in fact certain kinds of injuries are the product of several parties acting together, then a conception of legal responsibility that reflects this understanding of the world makes sense. Thus, collective responsibility may be the natural outcome of collective action. Second, concern for equity among parties also may affect the dominance of one model over the other. While rules of individual responsibility treat parties to different lawsuits as isolated from one another and from

\(^{12}\) For a discussion of the problems of pricing liability insurance, see K. Abraham, Distributing Risk: Insurance, Legal Theory, and Public Policy 64-100 (1986).
other legal actions, rules of collective responsibility treat parties as members of groups and naturally provide greater opportunity to consider treating like cases alike. Finally, since the model of individual responsibility often falls short of achieving its aims, a collective model may sometimes more effectively achieve the aims of individual responsibility. Thus collective responsibility may be adopted as a surrogate for individual responsibility.

These considerations make the choice between individual and collective responsibility seem deceptively easy. Making that choice in mass tort litigation is rarely easy, however, because in practice the justifications for choosing one model over the other are mixed. The parties potentially responsible for mass torts often are neither clearly isolated individuals nor consciously collective groups; promoting equity among plaintiffs tends to be appropriate only if other factors are equal, because equity conflicts with the countervailing interest in individual control of litigation; and using collective responsibility as a surrogate for individual responsibility risks the appearance of unfairness, because the imposition of tort liability is likely to have connotations that are publicly interpreted by reference to the norms of individual, rather than collective, responsibility. Mass tort law therefore reflects the tension between the two models, as the next Part reveals.

II. THE LEGAL CHARACTERISTICS OF MASS TORTS

The choice between the models of individual and collective responsibility is most often available in mass tort litigation because the limits of the individual model are most evident in these cases. Yet the accidents that produce the legal problems characterizing mass torts are by no means homogeneous. Apart from the large number of persons injured, the lawsuits that arise out of such diverse occurrences as airplane crashes, exposure to hazardous substances or dangerous drugs, and nuclear accidents do not necessarily have much in common. Some of these "accidents" are sudden events, others occur gradually, and still others take place serially over periods of time. Some of the injuries result immediately, while others take years before manifestation. Because not all mass

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13 Although the term accident usually connotes a sudden event, I shall use it to refer to sudden, gradual, and serial occurrences that produce mass injuries eventuating in tort claims.
tort litigation exhibits all the same characteristics, no single solution of "the" mass tort problem can be formulated—a cluster of problems, rather than a single problem, is involved. Nevertheless, several legal problems that often characterize mass tort litigation can be isolated, and the different ways in which the dilemma of responsibility arises in this litigation can be identified.

This Part examines five separate common characteristics of mass torts: the size of the legal actions resulting from mass accidents; the nature of the standard of care to be applied in evaluating the defendants' conduct; the variety of problems that plaintiffs encounter in attempting to prove causation; the character of liability rules governing the rights of mass tort claimants against insolvent defendants; and the stress placed on procedural devices to promote equity among claimants and to streamline the work of the legal system.

A. Size

The term "mass tort" itself suggests that the size of mass accidents and the number of parties to the legal action or actions subsequently instituted are essential characteristics. But the size of a lawsuit is not only a defining characteristic of a mass tort action; size is also an important influence on its outcome. A tort action with many parties poses problems different in kind from an action arising out of a traditional, "two-party" accident—problems which affect the behavior of the parties involved in the lawsuit, the likelihood and content of any settlement, and the ultimate choice between the models of responsibility that govern the litigation.

The behavior of the defendants in actions with one or a few plaintiffs and in mass actions with hundreds of plaintiffs is likely to differ significantly. The defendant (or its liability insurer, or both) in a mass action faces the prospect of very high costs.

If all the claims rise or fall together, the incentive to leave no stone unturned in defending is very great; the defendant may invest far more than in a traditional case. In contrast, if the defendant faces a series of suits, each arising out of essentially the same set of facts—hundreds of users of a particular drug claiming damages for
side effects, for example—then the defendant has a slightly different, but similar, incentive. Here the defendant may invest more than might otherwise be rational to defend early claims in order to to establish a reputation for toughness, or to generate early evidence that it will prevail in later suits. This strategy may deter later suits or increase the defendant’s chances of obtaining favorable settlements. Either incentive threatens to increase the complexity, length, and cost of the litigation in question.

The number of defendants in a mass tort action also may influence the defendants’ behavior. Although a group of defendants in a single action may be able to reduce their average costs by joint investment in the proof of common issues, their interests often conflict regarding other issues.\textsuperscript{15} The most critical conflict concerns each defendant’s relative responsibility for the plaintiffs’ losses. When substantive liability rules emphasize individual responsibility, each defendant has an incentive to avoid liability entirely by proving other defendants responsible. Collective responsibility rules may render complete escape from liability more difficult, depending on the nature of the rule and of the defendant, but not necessarily impossible. For instance, a defendant in a market share liability case may try to prove that it had no share of the market relevant to the plaintiff’s claims.\textsuperscript{16} Regardless of the model of responsibility implicated by the substantive rules, the effort to pin responsibility on other defendants therefore may be more complicated in a mass tort action than the straightforward effort to avoid liability in a typical two-party case.

The possibility of cross-claims among defendants for contribution or indemnity not only increases the number of issues that may have to be litigated; it also may make joint cooperation difficult. For example, the litigation concerning the MGM Grand Hotel fire involved more than one hundred defendants, many with cross-claims against each other.\textsuperscript{17} With interests to protect in relation to other defendants, each defendant may wish to appear and examine others in depositions, to propound interrogatories to others, to cross-examine the others’ witnesses at trial, and generally to act

\textsuperscript{15} See, e.g., id. at 87-90.
independently. The greater the number of defendants in any action, the greater the likelihood of such cross-claims and the greater the cost of the litigation to all parties.

The number of parties involved also affects the plaintiffs' incentives and opportunities. As the number of plaintiffs who are parties to any suit increases, more assets are available to invest in the discovery and proof of common issues. Such cooperation can lower the average cost per party and thereby reduce the pressure on any given plaintiff to settle to protect his investment. With the pressure to settle reduced, the complexity, length, and total cost of the litigation is likely to increase.\(^\text{18}\)

The probability that a case will be litigated may be increased not only by the incentives affecting plaintiffs and defendants as a class, but also by the behavior of individual parties. Whenever settlement depends on the cooperation or agreement of certain parties, they may behave strategically by demanding superior treatment as a condition of their agreement. Refusals to settle are not always strategic, however, because a party may occupy a position that legitimately requires special, separate treatment. For instance, to assure that total settlement payments stay within the limits of insurance coverage or other available assets, defendants who are subject to cross-claims by codefendants may need protection against such claims before settling with plaintiffs. Defendants not subject to such cross-claims have no need for this protection. Yet without the cooperation of the latter set of defendants, the former set may be unwilling or unable to settle.\(^\text{19}\) In short, the more parties to the litigation, the greater the difficulty of fashioning a settlement to which all essential parties will agree.\(^\text{20}\)

Under some circumstances, of course, a combination of incentives in mass tort cases may make settlement more rather than less likely. A defendant facing plaintiffs with pooled resources and more staying power than the typical individual claimant may decide that the necessity of heavy litigation expenditures is not worth

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\(^{18}\) Cf. Feinberg, The Toxic Tort Litigation Crisis: Conceptual Problems and Proposed Solutions, 24 Hous. L. Rev. 155, 162 (1987) (the more defendants in a suit, the higher the potential payoff, and the lower the incentives of plaintiffs to settle).

\(^{19}\) This phenomenon appears to have been the major obstacle to settlement in the MGM Grand Hotel fire litigation. See 570 F. Supp. at 933-36.

\(^{20}\) For an analysis of the factors that more generally promote settlement and litigation, see Priest & Klein, The Selection of Disputes for Litigation, 13 J. Legal Stud. 1 (1984).
their potential benefit. Major airplane crash litigation apparently follows this pattern, though usually only after substantial investment in the case by both sides. The fear of high litigation costs, in addition to the threat of adverse verdicts, also seems to have motivated the defendants' settlement offers in the Agent Orange and Bendectin litigation. Although the mass character of the litigation in these and similar instances makes settlement more likely, settlement is nevertheless more costly because of the mass character of the cases. Thus, other things being equal, a mass tort claim is likely to be more complex, lengthy, and costly than an equivalent claim involving only two parties.

The complexity and cost of mass injury litigation, however, are only quantitative effects of size; the size of such litigation can render it qualitatively different from ordinary tort cases as well. First, size is part of the reason that the choice between individual and collective models of responsibility can be posed at all. For example, the choice of an appropriate liability standard depends heavily on the incentive effects of the threat that the standard will be applied in the future. The sporadic and isolated imposition of liability in a few unrelated, ordinary accident cases may have little incentive effect on future actors, simply because the cases are sporadic and isolated. Even the threat that a particular standard that has been adopted previously in an ordinary accident case also will be adopted in mass tort cases is far weaker than the message sent when a new standard actually is applied in a mass tort case. A responsibility dilemma therefore is not likely to be acute unless it is posed by the extended set of claims characteristic of mass tort litigation.

Second, only after the scientific community develops at least some knowledge about the causes of injuries at issue in mass tort cases can the legal system even contemplate adopting collective re-

21 See, e.g., A. Lowenfeld, Aviation Law §§ 7.12-.22 (2d ed. 1981) (discussing the claims arising from two major air disasters).


23 Commentators also suggest that the transaction costs of a tort action increase not merely additively, but exponentially, with increases in the number of parties in the action. See, e.g., P. Schuck, supra note 14, at 7; Epstein, The Legal and Insurance Dynamics of Mass Tort Litigation, 13 J. Legal Stud. 475, 476-77 (1984).
sponsibility rules that displace certain of the problems of tracing individual responsibility. The greater number of injured parties in a mass tort case can be a prerequisite to the development of such knowledge. For example, in some cases the existence of a large number of people with the same disease or injury is necessary to the scientific identification of its cause. The first asbestos worker who contracts lung cancer has a myriad of possible causes to consider, but once many asbestos workers contract the same disease, epidemiologists can begin to make judgments about causation. In contrast, in other instances potential claimants cannot proceed far enough even to have difficulty proving causation, because they cannot identify potentially responsible defendants by analyzing a large number of similar claims.

In sum, the most salient feature of mass tort litigation is more than a merely definitional property; size also affects the behavior of the litigants, influences their incentives to settle, and helps to create the other legal problems associated with the choice between the individual and collective models of responsibility.

B. The Applicable Standard of Care

The responsibility dilemma characteristic of mass tort litigation emerges again in the choice between fault and non-fault standards of liability. Negligence is generally an individual responsibility standard; strict liability is a feature of regimes weighed more toward collective responsibility. The explanation for this difference involves more than the evident stress on individual fault in negligence law; strict liability sometimes serves as a surrogate that more effectively achieves the aims of negligence law than negligence itself. More importantly, strict liability tends to be imposed at a

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higher level of generality than negligence liability. It is applied to categories of activities, with less regard for detailed differences in the behavior of or care taken by individuals or firms comprising these categories. For example, a blaster is strictly liable for injuries caused by that activity, regardless of the time, place, or manner in which the blasting occurs; likewise, the maker of an unreasonably dangerous product is liable for the injuries it causes, despite the amount of care exercised in the product's design and manufacture. Strict liability is imposed because of characteristics that activities share, rather than because of features of behavior that distinguish actors engaging in the same activity.

Despite these collective responsibility implications of strict liability, its use as a standard of care in the typical products liability case is not a major substantive change, because negligence and strict liability ordinarily produce similar outcomes. Although negligence liability requires foreseeability of the risk in question and strict liability does not, usually the risk was foreseeable even if the defendant did not actually foresee it. Others in the industry or the scientific community will have sufficiently recognized the danger to put the defendant on notice of the existence of the risk. In these cases a strict liability standard simply relieves the plaintiff of the burden of proving what probably was the case and probably could be proved.

The collective responsibility implications of strict liability are more prominent, however, in cases where a long-latency period occurs between the exposure to a dangerous substance and the manifestation of a disease caused by the exposure. The longer the latency period after the plaintiff's exposure to the risk created by the defendant, the greater the chance that unforeseen and possibly

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29 See Restatement (Second) of Torts § 402A (1965).

unforeseeable risks were recognized only after exposure. The critical issue in such cases is whether the defendant should be held liable for a failure to reduce or to warn of risks that were unknown and unknowable at the time they posed a danger to the plaintiff. The defendant in such a case typically raises a "state of the art" defense based on its inability to discover or understand the danger at the time of the exposure. In effect, the defendant claims that it should not be liable if it were not negligent.

The appeal of this claim to be judged by an individual responsibility standard is strong. On the other hand, requiring a showing of negligence in long-latency cases would place on plaintiffs significant difficulties of proof. Proof of negligence would require a showing that the defendant actually knew of the danger in question—always a difficult burden to meet—or that it should have known of the danger. Yet if the defendant, others in the industry, and the scientific community were unaware of the danger, then the plaintiff would be required to prove that the defendant was negligent in conducting insufficient research into the dangers of the product or material in question and that a reasonable level of research would have uncovered the danger.

Such proof would be enormously complicated, expensive, and difficult. It would involve showing the prospective benefits to the defendant at the time of conducting the research, the prospective costs, and the probability that a reasonable level of research would have uncovered the danger in question. Furthermore, different defendants might have different research obligations, depending on their research capacities and other characteristics. Moreover, all this would have to be proved twenty years or more after the period in question. By imposing strict liability rather than negligence in such cases, the tort system can ignore differences in the prospective benefits and costs to different enterprises of conducting research that would have revealed undiscovered risks; instead, the system holds the industry producing the product or taking the action in question to a collective standard. The drift toward strict

liability in failure to warn cases, therefore, can be explained partially as a reaction to the difficulties of proving negligence in long-latency cases. In these cases strict liability may serve as a surrogate for negligence by overimposing liability (from the standpoint of the negligence standard) less than adherence to a negligence standard would underimpose liability.

A different justification must be provided for imposing strict liability in long-latency cases in which a reasonable level of research would not have uncovered the risk that culminated years later in mass injuries. Here strict liability is not a surrogate for negligence because the cases do not involve negligence. Instead, the justification for imposing strict liability must rest, if it exists at all, on the impact on future actors of the threat of strict liability. This threat may encourage additional research by future actors into the risks posed by their activities or may influence levels of activity and production unaffected by the threat of negligence liability.

Underlying this kind of justification for the imposition of strict liability in conventional cases, however, there has always seemed to be an unstated moral predicate. This predicate is that a standard of care that imposes liability on a defendant and thereby "uses" that defendant to influence future actors is morally acceptable if the defendant could have predicted such a use of strict liability. Thus the moral acceptability of strict liability stems from its predictability. Predictability subjects the actual defendant to all of the incentive effects that the threat of strict liability produces and eliminates the "use" of the defendant only as a means to influence others.

Prediction becomes more difficult, however, as the period between the time an enterprise tries to predict its liability for present actions and the time liability actually is imposed increases. To the extent an enterprise now subject to suit could not have predicted the imposition of strict liability, no incentives were created by that

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33 For a discussion of the other explanations for the movement to strict liability, see Calabresi & Kleverick, supra note 27, at 594-602.
34 Cf. Cooter, Prices and Sanctions, 84 Colum. L. Rev. 1523, 1540 (1984) (strict liability is superior to negligence when relatively large errors are likely in the identification of the efficient level of care and relatively small errors are likely in the computation of damages or assignment of liability).
35 See Calabresi & Hirschoff, supra note 27, at 1062-63.
prospect, and the justification for imposing strict liability can only be its impact on the future actors who can now anticipate strict liability. Under such circumstances the defendant is used only to influence the behavior of others. Thus, strict liability has the greatest potential to use defendants as a means to an end unrelated to their past actions in long-latency cases.

This phenomenon is perhaps the strongest example of the way in which the adoption of strict liability in long-latency cases collectivizes responsibility when injuries are largely unpredictable. In the first decade or two after a strict liability standard is adopted, its imposition holds past actors responsible for the consequences of their own actions, but the exclusive purpose of imposing liability is to influence others. In effect, the law enlists past actors in service of its effort to control future actors—it holds the former collectively responsible for influencing the behavior of the latter.

Unfortunately, the most obvious method of avoiding this "retroactive" imposition of obligations—prospective announcement of a new rule of liability—would be feasible in this field only in the most attenuated way. Because of the long-latency periods involved, the prospective rule could not have an immediate effect on litigation, but could apply only to those claims resulting from exposures that occur after the time when potential defendants could reasonably have predicted the ultimate imposition of strict liability. If this watershed point were to lie somewhere in the mid-1970's, then a strict liability rule announced prospectively today would not begin to have application until the late-1990's, when injuries from exposures occurring after the watershed would manifest themselves.

This would be an odd-looking rule indeed. More important, it would be a rule that might not achieve its aims. Current actors could not be confident that such a rule would be applied when the first opportunities for application would not occur for ten years or more. Because such a threat lacks credibility, its incentive effects might be weak. Therefore, the need to make the threat to impose strict liability in future cases credible may explain its current imposition in cases involving actions that occurred before the state of the art could anticipate such liability, and from which the typical moral predicate for the imposition of liability is absent.

At this point in the analysis, two ways in which strict liability takes a step toward collective responsibility have emerged. First, strict liability, much more than negligence liability, embodies a
standard of conduct that results in liability for ordinary rather than exceptional activity. A finding of strict liability makes a statement about an activity, not an actor alone, and is therefore a statement about all who are engaged in the activity. It is like a finding that an entire industry is negligent as a matter of law, though without the fault implied by such a finding.37 Second, in long-latency cases that disallow a state-of-the-art defense, current defendants bear the cost of making a credible threat to impose liability on future defendants, and are held responsible so that the system can control the behavior of others.

These are only small steps toward collective responsibility. To judge an individual defendant by a standard that applies to the actions of a group of actors is not to impose liability on the group; to impose liability on an individual actor primarily to affect the behavior of others imposes a kind of vicarious, rather than overtly collective, responsibility. Nonetheless, the rise of strict liability, especially in long-latency cases, portends more direct forms of collective responsibility, because the imposition of strict liability begins to dissolve the conceptual boundaries between individual actors. If a defendant is held liable because of the nature of the activity in which it and others engage, despite differences in the manner of conducting the activity, the differences between the actors are submerged. If a defendant is held liable for actions which posed unpredictable risks solely in order to influence others' behavior now, an otherwise important difference between them—their control over different sets of events—is ignored. These small movements toward collective responsibility grow larger in the new doctrines governing causation.

C. Proof of Causation

It should come as no surprise that proving causation often is especially difficult in mass tort cases. The factors that render causal relations unclear and knowledge about the risk posed by a variety of hazards underdeveloped at the time of trial are likely to be the same ones that hindered the enterprise's ability to make sophisticated risk-safety calculations in the first place. An enterprise that

cannot predict the consequences of its actions with the requisite degree of certainty may not invest in the degree of loss prevention that, with hindsight, would have been optimal. The result may be mass exposure to risk and potentially massive injury.

To meet traditional burdens of proof in a regime that emphasizes individual responsibility, the plaintiff must show what I shall call substance, source, and exposure causation. That is, he must prove that the substance for which the defendant is responsible can cause his injury or disease, that the defendant and not someone else was the source of the substance, and that he was in fact exposed to the substance in a way that has caused his disease. In many cases proof of some of these elements is simple; in some cases, proof of one automatically proves another. For example, when a particular disease is caused almost exclusively by a particular substance, the occurrence of the disease is the substance's "signature." Proof that the plaintiff has the disease, therefore, is also proof of both exposure and substance causation. In many cases, however, meeting the traditional burden of proof as to each of these elements is no minor accomplishment.

Probably no doctrinal requirement has more troubled the courts in mass injury cases than the traditional rule that the plaintiff bears the burden of proving causation. One reason for the problem is the long-latency period associated with diseases caused by dangerous exposures to certain drugs, toxic chemicals, or hazardous waste. Because the period between the exposure allegedly producing the disease and the manifestation of the disease can be twenty years or more, evidence of any connection between the defendant's actions and the plaintiff's loss may often have disappeared or become unavailable.

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38 Signature diseases include vaginal adenocarcinoma, caused almost exclusively by exposure to the drug DES in utero, and mesothelioma, caused almost exclusively by inhalation of asbestos fibers. See Abraham & Merrill, Scientific Uncertainty in the Courts, Issues in Sci. and Tech., Winter 1986, at 93, 101.


40 See supra notes 32-36 and accompanying text.

Another reason proving causation is so troubling in mass tort cases is that scientific knowledge often is insufficient to allow a firm conclusion about the cause of the plaintiff's injury. Clinical and epidemiological studies may support the conclusion that exposure to a substance for which the defendant is responsible may have been a cause of the plaintiff's loss; such studies may even provide some guidance as to the probability of this causal connection. Their value is often limited, however, because they will not support the traditionally required inference that the defendant was more probably than not a cause. The difficulties of proof are no less troubling when the question is how much of plaintiff's damages were caused by each defendant, even assuming that together the defendants are responsible for all such damages.

The pressure to relax the traditional burdens of proof regarding causation and apportionment of damages has been strong. Without such relaxation often the plaintiff will fail, notwithstanding the appeal of his claim and the probability that the defendant or defendants have caused injuries to someone, even if not to the plaintiff.

The courts have responded to the pressure with a series of doctrinal innovations that adopt a more collective focus than the rules they replace.

The new rules can shift the burdens of proof and adopt a more collective emphasis in several ways. In signature disease cases, market share liability entirely relieves the plaintiff of the burden of proving source causation. That burden is shifted to the defendants, who normally are unable to disprove causation and therefore bear liability collectively, albeit in proportion to their market shares. The defendants in signature disease cases have not necessa-

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43 See Dore, supra note 24, at 436-37.
44 A second explanation for relaxing the traditional burdens of proof is quite different. Because the large number of plaintiffs in mass tort cases can threaten the solvency of any single defendant, all parties—plaintiffs and defendants—have an even greater incentive than normal to join all potentially responsible parties. As the search for a deep pocket widens, the connection between the actions of a particular defendant and the plaintiff's losses becomes attenuated. Thus the necessity for a shift in the plaintiff's burden of proof arises so that the purpose of joining the additional defendant with only attenuated causal responsibility is not defeated. In such cases a defendant with limited causal responsibility for the plaintiff's loss may come to bear more than an equitable share of liability for that loss, either because liability is imposed in equal shares or because some defendants are insolvent and others bear their remaining liability.
rily acted collectively to cause plaintiff's damages, although sometimes the actions of each contributed. Rather, market share liability is an effort to impose collective responsibility in a way that mirrors the amount of each defendant's individual responsibility: it is a surrogate for individual responsibility.

Joint and several liability imposed on independent tortfeasors—another method of shifting the burden of proof—has even more collective effects for two reasons. First, the amount of liability imposed bears no necessary relation to the degree of responsibility of any particular defendant for the plaintiff's injury. In certain cases the amount of liability imposed may not even reflect the probability that a particular defendant is responsible at all. Second, because each defendant bears the risk of the others’ insolvencies, it may have to pay both its own non-causal share and a portion of the shares of codefendants. Shifting the burden of apportioning damages to a group of defendants, each of whom has caused an undetermined part of a plaintiff's injuries, also is a collective response to the causation problem, because if defendants are unable to meet their burden, they are held jointly and severally liable. Moreover, even if defendants are able to apportion damages the shift has collectivizing effects, because most of the cost of apportioning has been spread among defendants instead of shouldered by the plaintiff.

In some cases, there are both. For example, considerable evidence indicates that collusion among asbestos manufacturers prevented dissemination of information about its dangers. See P. Brodeur, supra note 4, at 109-31, 178-80.

Thus, the intention is to produce a more accurate assessment of individual responsibility on the part of defendants. Traditional burdens of proof result in inaccurate assessments of responsibility whenever a plaintiff is unable to pinpoint responsibility that in fact should be borne by another party. Shifting the burden of proof to defendants may also result in inaccuracy; but when the over-assessment of responsibility produced by collective rules that shift the burden of proof is smaller than the under-assessment produced by retaining the traditional rules, a shift comes closer to imposing the "correct" amount of liability. Such a shift therefore departs less from the individual responsibility standard than a rule that actually embodies the standard.


One other effect of collective rules governing proof of causation is worth noting here. The most unpredictable feature of any accident is the amount of damage it produces. Slight differences in physical circumstances, in the susceptibility of those exposed to risk, in the age or earning capacity of victims, or in other factors can result in wide variations in the amount of liability imposed on a responsible party. One accident barely scratches a victim,
Debate about whether the incentive effects created by joint and several liability rules are superior to approaches that decline to impose such forms of collective responsibility is unresolved. Arguably, the more collective responsibility a given rule entails—on its face or because of the collectivizing effects of liability insurance—the less optimal is its effect on the safety incentives of those to whom it applies. Free-riding will confound these incentives, because the cost of failing to optimize safety will be collectively, rather than individually, imposed. Because most enterprises subject to joint and several liability will not receive sufficient benefit to warrant optimal investment, they will underinvest in safety if others can capture some of that benefit.

To the extent that these collective responsibility rules have incentive effects that are, in fact, suboptimal, they must seek a separate, noneconomic justification. In my view, this justification must derive (when it can be given at all) from the sense in which the defendants actually have or have not acted in a collective fashion. Yet something like actual collective activity by potential defendants can be discovered more easily in some cases than in others. The problem is illustrated by the following examples.

Example One. Separate enterprises polluting a drinking water supply act independently, but are aware that the others are acting in a manner that may make subsequent tracing of individual responsibility for diseases caused by drinking the polluted water difficult.

but an identical one causes mayhem. Large enterprises that suffer frequent claims are somewhat protected from such vicissitudes by the law of large numbers, and those with less frequent claims can buy similar protection through insurance. Collectivizing doctrines governing causation further smooth out this unpredictable variation in the severity of claims, thereby removing the capricious feature of rules having a more individual emphasis.


Collective responsibility rules may have suboptimal effects not only on safety levels but on activity or production levels as well. Reducing production levels will reduce market share and therefore the extent of an enterprise's market share liability in most cases. Under at least some versions of this doctrine, however, responsible enterprises continue to bear part of the cost of injuries caused by enterprises not subject to suit because of insolvency or jurisdictional factors. Only by eliminating involvement in an activity altogether will an enterprise be assured of avoiding the free-rider effects of market share or joint and several liability for losses caused by the activity.

In this example the predictable effect of the actions of independent enterprises is their combination into a single, indistinguishable, injury-causing force. Here the notion that each independent act is a cause of the subsequent force is plausible, as is the associated notion that those responsible have acted collectively. Consciously parallel actions that have predictably joint effects very closely resemble actions taken in concert.

When there is no such subsequent combination of independent but consciously parallel actions, however, the imposition of collective responsibility requires other support. Sometimes justifications are available. For instance, collective action may precede the creation of an injury-creating force. The evidence of collusion among asbestos manufacturers to suppress information about its dangers may support the imposition of collective responsibility in actions against them, and decisions made by trade associations about product design or marketing that eventuate in injuries may support the imposition of collective responsibility on association members.

The situations in which even these attenuated notions of collective action can be invoked, however, are limited. Moreover, the question whether a finding of collective causal responsibility is appropriate in such cases can be reached only when the connection between the forces set in motion by the defendants and the plaintiffs’ disease or injuries is provable. Often plaintiffs can prove this connection by preestablished relationships, as in cases of signature disease, by epidemiological studies conducted specifically for the litigation at hand, or by clinical judgments made by qualified experts. In such cases, what harmed the plaintiff may be clear, even denied, 419 U.S. 997 (1974).

Moreover, in some of these cases each defendant’s action not only increases the difficulty of apportioning individual responsibility; when they combine, these actions may also have synergistic effects that increase the likelihood (sometimes predictably) that the actions of the others will cause harm. For discussion of synergy, see infra note 59 and accompanying text.

See P. Brodeur, supra note 4, at 109-31, 178-80.


if who caused the harm, either factually or legally, may not be clear. Substance causation is proved, but source causation is at issue.

More problematic are cases involving nonsignature diseases in which substance causation is also at issue. Lung cancer, leukemia, and birth defects have a variety of causes, some better understood than others. The parties potentially responsible for such harms, assuming that they can be identified, often have not acted collectively, even in an attenuated sense. Yet each has caused some harm to potential, indeterminate plaintiffs. As Professor Glen Robinson has argued, the logic of market share liability suggests that these potentially responsible parties could be held liable based on a formula reflecting the probability that each party harmed a particular plaintiff. Logical though this approach might be, it is unfortunately very impractical, because nothing even remotely as precise a proxy for the probability of responsibility as market share is available in most nonsignature disease cases. Science has progressed to the point where it can identify some substances and exposures that seem to increase the probability of certain diseases, but only infrequently can these probabilities be quantified with any precision.

The argument for imposing collective responsibility in nonsignature disease cases, therefore, is not strong. The next examples generate a rationale supporting this approach, not to recommend it, but to demonstrate how far the law would have to extend beyond its current limits to impose collective responsibility in nonsignature disease cases.

Example Two. The probability of contracting a particular disease is substantially increased by exposure to any of several substances. Exposure to more than one of these substances arithmetically increases the probability of contracting the disease.

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56 The limitations of available data also render impractical both Professor Robinson's and Professor Rosenberg's creative proposals for compensation on the basis of risk rather than actual harm. See Robinson, Probabilistic Causation and Compensation for Tortious Risk, 14 J. Legal Stud. 779 (1985); Rosenberg, supra note 39, at 885-87. For an effort by workers exposed to asbestos to recover for their increased risk of contracting cancer, see Devlin v. Federal Shipbldg. & Dry Dock Co., 202 N.J. Super. 556, 495 A.2d 496 (1985).
Here a number of obstacles to the imposition of collective responsibility on those responsible for exposure can be identified. First, the plaintiff must prove his exposure to each substance, because otherwise potentially responsible sources with no connection to the plaintiff's harm could be held liable. Second, unless the plaintiff is exposed to all or most of the substances that increase the probability of contracting the disease, the plaintiff will rarely be able to prove that exposure to these substances more probably than not accounts for the disease. Third, even if the plaintiff’s burden of proof were relaxed and the award of probabilistically measured compensation were allowed, the need for more precise quantification of probabilities than is normally possible would foreclose any such award. Only if the plaintiff can overcome these very substantial obstacles can the court then face directly the question whether the sources are collectively responsible.

But on what basis can it be concluded that the sources are collectively responsible? If each source knew both that the exposures for which it is responsible increase the risk of harm to those exposed and that scientific uncertainty renders linking causal responsibility to any particular exposure impossible, then the sources stand in a similar relation to the harm as the defendants in Example One. The relation is not exactly the same, however, because in Example One each party contributed to some actual harm—the pollution. Example One thus involves the problem of apportionment, while Example Two poses the problem of causation vel non. In Example Two each exposure merely increased the risk that the plaintiff would contract the disease in question, and increased it no more than if the plaintiff had been exposed only to that substance. There is neither actual collective action nor proven causal responsibility on each party’s part in Example Two. In the end, therefore, the imposition of collective responsibility for nonsignature disease in cases of arithmetically increased risk must find justification, if at all, not on its own terms, but as a surrogate for individual responsibility.

Example Three. The facts are the same as Example Two, but the sources’ contribution to the risk of contracting the disease is exponential, because exposure to the different substances in combination has a synergistic effect.

Under these circumstances the defendants’ action is more collective, at least in the sense that the combination of their individual
actions is more than the sum of its parts. To the extent that each
knows of the potential effect of its actions and acts anyway, some-
thing resembling consciously parallel action has occurred. Whether
this will warrant imposing collective responsibility, however, de-
pends on the kind of synergy involved. In the simplest and most
extreme case, exposure to one or even all but one of the substances
involves no danger, because no risk exists in the absence of all the
actions. If the sources have knowledge of this effect, then their ac-
tions can be called collective in a meaningful sense—they exhibit a
mutual, conscious disregard of consequence.

In other cases, however, each substance alone is also capable of
causing some harm. In such cases it is unclear whether each sub-
stance contributed to the harm. The sources responsible for each
substance may have acted in a consciously parallel fashion, but
these actions may not have had a combined effect. Whether the
additional, exponentially increased risk produced by the combina-
tion of the substances is more probably than not responsible for
the plaintiff's harm depends on the risk posed by each substance
and the strength of their synergy. When the synergy is more prob-
ably than not responsible for the disease, then the sources not only
have acted collectively; proof of their collective effect should sat-
ify conventional doctrines governing proof of causation. When
this synergy is less probably than not the cause of the plaintiff's
disease, however, the case looks more like Example Two and poses
the same difficulties as that example.69

In sum, the justification for imposing collective responsibility in
a large variety of nonsignature disease cases is not easy to find.
Often no collective action of even the attenuated sort that might
warrant a finding of collective responsibility in other mass tort sit-
uations can be identified; the use of collective responsibility as a
surrogate for individual responsibility does not necessarily have
the incentive effects that might otherwise justify its imposition;
and in any case, the data necessary to support the probabilistic
measures of causation that could serve as surrogates for causal re-
ponsibility will rarely be available. The entire effort usually re-

As complicated as the examples are, they are oversimplified. For instance, potentially
relevant factors such as differences in the doses or durations of exposure to each of the
substances involved have been deliberately excluded. The inclusion of these matters would
make judgments about the nature of each source's responsibility considerably more difficult.
quires more than the legal or scientific state of the art is capable of providing.

D. The Risk of Insolvency

An entirely different impetus toward collective responsibility is evident in the search for a solvent defendant. The risk that the defendant is insolvent—typically borne by the plaintiff in an accident case—has occasionally prompted courts even in conventional tort cases to spread joint and several liability beyond its traditional bounds, and to extend liability to certain defendants in situations that would not otherwise permit a finding of proximate cause. For the most part, however, liability rules are formulated without regard for the potential insolvency of the defendant.

The rise of mass tort litigation suggests three reasons for taking this risk into consideration in formulating liability rules. The first is the potential misdistribution of assets between tort claimants, other creditors, and owners of an enterprise threatened with insolvency because of its responsibility for a mass accident. The longer the period between the actions that produce mass injuries and the final resolution of all claims that result, the greater the opportunity for the commercial creditors and owners of the re-

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Rules governing the liability of a successor corporation for the torts of its predecessor also are developing to meet the risk that a defendant is insolvent. See, e.g., Leannais v. Cincinnati, Inc., 565 F.2d 437, 439-43 (7th Cir. 1977); Ray v. Alad Corp., 19 Cal. 3d 22, 560 P.2d 3, 136 Cal. Rptr. 574 (1977).

61 The role played by the risk of insolvency in mass tort claims, like the other characteristics of mass torts, is not independent of the others. Rather, the risk of insolvency is partially a product of these characteristics and, in turn, partially a cause of their existence. The impact of the size of mass disasters on the risk of insolvency is obvious: the greater the number of plaintiffs injured and the more the losses suffered, the greater the risk that damages will exceed the defendant's assets. Similarly, the same problem that often leads to difficulties in proving breach of the applicable standard of care—the passage of time between the actions that ultimately will result in liability and the actual imposition of that liability—also creates the potential for creditors and owners of an enterprise to drain a defendant’s assets and render it insolvent by the time the latency period ends and injuries begin to manifest themselves. At least in some mass tort cases, the threat of multiple awards of punitive damages, a very common characteristic of mass disaster litigation, is the real threat to the solvency of defendants.

sponsible enterprise to divert their assets and thereby to preclude tort claimants from recovering their losses. Without liability rules that prevent this kind of diversion, the enterprise has an incentive to engage in excessively risky activity.

The second reason for taking the potential insolvency of defendants into account in formulating liability rules is a corollary of the first. Under traditional rules governing the allocation of the risk of insolvency, early tort claimants obtain compensation for their losses until the defendant’s assets are depleted; consequently, later claimants may find that the defendant has become insolvent by the time their claims mature. An adjustment of rights among tort claimants would be required to prevent this inequity.

Finally, a defendant threatened with insolvency over a long period will almost inevitably operate less efficiently than it would if the threat were removed. Its access to capital markets will be hindered, worthwhile mergers may be blocked, and other features of its operation may be impeded. Earlier resolution of claims than is permitted under traditional rules of tort liability could reduce or eliminate these inefficiencies by removing the sword of Damocles hanging over the defendant’s neck.63

Any liability rule that attempts to adjust for the potential mis-distributions, inequities, and inefficiencies produced by the risk of insolvency will inevitably have more features of collective responsibility than the traditional rule it replaces. For example, under current rules, victims whose claims are resolved late in the distribution of all the claims against a defendant bear the greatest risk that the defendant’s insolvency will foreclose their recoveries. The Manville Corporation cited this potential inequity as a justification for its proposed reorganization under Chapter Eleven of the bankruptcy law.64 Manville’s reorganization proposals contemplated shifting some of this risk of insolvency to current claimants by limiting the damages they could recover for asbestos-related injury to their out-of-pocket losses. Thus more assets would be available for later claimants.65 Professor Mark Roe has also proposed shifting

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63 See id. at 856-62.
64 See In re Johns-Manville Corp., Summary of the Joint Plan of Reorganization 1 (Nov. 21, 1983).
65 See id. at 7-8. The plan eventually adopted did not embody these proposals. See In re Johns-Manville Corp., Second Amended and Restated Plan of Reorganization, slip op. at 8, 45 (Bankr. S.D.N.Y. Dec. 18, 1986).
the risk of insolvency forward in time by affording all claimants compensation analogous to an annuity whose value would vary with the future earnings of the defendant and with the frequency and severity of the claims made against it.\textsuperscript{66}

In each of these and similar proposals, the shareholders, current commercial creditors, current tort claimants, and future tort claimants of a defendant collectively bear the risk of the defendant’s insolvency. In different proposals this risk is allocated to the parties in different ways, but in each the risk of insolvency is lifted, to a great extent, from the shoulders of future tort claimants. The advantage of these collective approaches is not only greater equity among plaintiffs,\textsuperscript{67} but greater equity between tort claimants and commercial creditors and greater efficiency in operating the potentially insolvent enterprise under uncertainty about the scope of future tort claims.\textsuperscript{68} Such advantages are achieved, however, only at the cost of a radical revision of the traditional rights of shareholders, as well as commercial and tort creditors with claims already in existence.

In short, as the risk of insolvency increases, the traditional rights of shareholders, creditors, and current tort claimants can remain untouched only if the interests of future tort claimants are sacrificed. With liability rules reflecting individual responsibility, that sacrifice occurs, because the passage of time may leave future claimants without a fund from which to claim recovery. With more collective liability rules in place, the sacrifice can be mitigated, but only through a corresponding sacrifice of currently existing rights.

\textbf{E. Collective Procedures and Equity Among Plaintiffs}

The final conflict between individual and collective models of responsibility occurs because of the availability of two very different approaches to mass tort litigation. Individual procedures maximize the litigants’ control over their own cases. Allowing independent litigation of a series of claims arising out of the same accident or course of conduct, however, is unnecessarily expensive. More importantly, separate litigation of hundreds or thousands of nearly

\textsuperscript{66} See Roe, supra note 62, at 871-74.

\textsuperscript{67} Cf. id. at 855 (suggesting that a first-come, first-served rule might not be inequitable in this context).

\textsuperscript{68} See supra note 63 and accompanying text.
identical cases may violate what I shall call the "equity principle"—the notion that like cases shall be treated alike.

Although the equity principle is a central norm in our system of justice, it has rarely troubled accident law in any special way. Part of the explanation is that its force has been dissipated by the important distinction between questions of law and questions of fact. A question of fact is said to be one "about which reasonable people could disagree." This formulation is a suitable approach to the allocation of decisionmaking authority between judge and jury. Yet its implication is not only that people on the same jury could legitimately disagree about the answer to a question of fact, but also that different juries could legitimately disagree if the question were put to them. This characterization of questions of fact thus suggests that cases involving identical facts, submitted to different juries, can justifiably be decided differently. Yet this notion and the equity principle cannot live easily together, if they can live together at all.

The tension has been reconciled in several ways. The first way is simply to apply the equity principle only to questions of law. This limitation on the reach of the principle might be supported by the argument that because the function of the jury is to determine the facts in a case, no one can know that two cases are alike in relevant respects until two juries have decided them in the same way. If two similar cases are decided differently, then they are only that: similar, but not identical, in the respects considered relevant by the two juries. In such cases the norm underlying the equity principle is not violated.

This reconciliation may seem to work when it is focused on comparisons of jury decisions in seemingly similar but unrelated cases, because its circularity makes it irrefutable in the absence of independent data about the facts of these cases. But of course this kind of reconciliation is nothing but circular. Moreover, in mass tort litigation the cases submitted to juries are more than merely "similar"; often they arise out of the same accident or identical set of facts. No one would say that the facts in two such cases are different precisely and only because two juries decided the cases differently.

A different way to reconcile the tension between the equity principle and the law's treatment of questions of fact is to ascribe the difference in the results of seemingly identical cases not to juries'
answers to empirical questions, but to their answers to mixed questions of law and fact. Two juries may have agreed on the facts "on the ground" but characterized them differently. For example, one jury may have concluded that the defendant was negligent or its product defective, while the other reached the opposite conclusion. This reconciliation, however, is even less satisfactory than the previous one. Why should it be any more acceptable to violate the equity principle because of jury differences about mixed questions of law and fact than about pure questions of fact? Because the equity principle is undoubtedly applicable to pure questions of law, the more a factual question has in common with a question of law, the stronger the argument for deciding it in the same way in cases with common facts.

A third way to reconcile the tension is to ascribe responsibility for differences in the results of like cases to such exogenous variables as the quality of legal representation available to the parties. This is less a reconciliation of the tension than a recognition of it, because almost any variable that accounts for such differences is exogenous when two cases are alike in all relevant respects. In some sense other attempts at reconciliation may be ways of avoiding this recognition that legal outcome is so dependent on input. Although this fact of legal life is commonplace, it is easier to tolerate in dissimilar cases than in those that are very nearly identical. One can never say with certainty about a single, isolated case that a greater investment of resources or some other change in input would have altered its outcome, but once two like cases have produced different outcomes, one cannot avoid the fact that some variable or variables account for the difference. With the rise of mass accidents the problem of assuring equity among plaintiffs has become more severe, because of the greater possibility that many similarly or identically situated plaintiffs will be treated differently under circumstances that preclude rationalization of the different outcomes of their cases.

As a consequence, the advantages of streamlining the procedures used in mass tort litigation have become increasingly evident. Achieving these advantages, however, requires deciding whether to treat plaintiffs individually or to construct procedural devices that will link their fortunes in collective fashion. Three procedural devices which address this choice might play considerable roles in mass accident litigation. Each can be seen as a method of reducing
the costs of administering such litigation as well as promoting equi-
ity among plaintiffs. First, the doctrine of collateral estoppel, or
issue preclusion, may be used to make decisions in early cases
binding in later cases involving the same set of facts. Second, class
action suits may be employed so that a single decision on common
issues binds all or most plaintiffs whose claims arise out of the
same set of facts. Third, under some circumstances the doctrine of
stare decisis may be invoked to assure that issues decided as a
matter of law in one case are resolved the same way in later cases.
Yet because these doctrines strike compromises between individual
and collective forms of responsibility, none of the devices as cur-
rently formulated reduces the costs of mass tort litigation or re-
sponds to the demands of the equity principle as much as might
otherwise be expected.

1. Collateral Estoppel

Collateral estoppel operates to preclude a party from relitigating
in one case an issue decided against it (or against those in “privity
of interest” with it) in an earlier case. The doctrine had limited
application until the decision of the Supreme Court in Parklane
Hosiery v. Shore.69 Before Parklane, the “mutuality” requirement
permitted collateral estoppel at the federal level only if the party
invoking the doctrine would have been estopped to raise the issue
in question again had the earlier decision been decided against him
rather than in his favor.70 The major use of the device was to pre-
vent repeat litigation of the same issue by the same parties. It
could be used “defensively” by a defendant who had prevailed on a
particular issue or issues in earlier litigation against the same
party, and could be used “offensively” by a plaintiff who had pre-
vailed in earlier litigation against the same party and who was liti-
gating a different claim involving an issue already decided between
them.

With the demise of the mutuality requirement, collateral estop-
pel can be used by litigants who were not parties to the earlier
litigation deciding the issue in question. For this reason the doc-

70 In some jurisdictions the mutuality requirement had already been abolished in state
cases. See, e.g., Bernhard v. Bank of Am. Nat’l Trust & Sav. Ass’n, 19 Cal. 2d 807, 122 P.2d
892 (1942).
trine may appear to have considerable potential for use in mass tort litigation. Once an issue is decided in the first case arising out of a mass accident, for example, it might not have to be relitigated in subsequent claims involving the same facts. Equity among plaintiffs and substantial savings in administrative costs would result.

For a variety of reasons, however, this potential is more apparent than real. First, the "defensive" form of the doctrine still is not available against a plaintiff not a party to earlier litigation, because he cannot be deprived through collateral estoppel of the right to an initial trial by jury. A defendant who has already prevailed in earlier litigation against one plaintiff still can be forced by another plaintiff to relitigate identical and previously resolved issues. The defendant may therefore be held liable to one plaintiff even after prevailing against another plaintiff injured in the same accident; earlier plaintiffs may find that although they have failed to recover, subsequent and identically situated plaintiffs have been successful. Under these circumstances equity among plaintiffs is sacrificed to assure each plaintiff the constitutional right to individual responsibility for his own suit.

Parklane's elimination of the mutuality requirement is subject to another exception that also emasculates its value for much mass disaster litigation. The Court held that "offensive" collateral estoppel could be invoked in the federal courts by a litigant not a party to the earlier case only if that litigant could not have joined the earlier case with reasonable ease.\textsuperscript{71} In other words, potential litigants are not allowed to stand on the sidelines awaiting the outcome of crucial litigation, planning to use favorable results but to ignore unfavorable rulings in subsequent litigation. This limitation may prevent the Parklane rule from discouraging joinder of claims, but it certainly does not encourage any more joinder than did the previous rule. Depending on what counts as reasonable ease in joining the earlier case, the new collateral estoppel may have no greater collectivizing effect than the previous rule.

The third limitation on the new doctrine is that its availability depends on the earlier litigation being structured in anticipation of the doctrine's later use. Without such structuring, a determination that the issues in a subsequent case were actually decided in an

\textsuperscript{71} 439 U.S. at 331.
earlier one may not be possible. Otherwise, the decision in the earlier case may be ambiguous on key issues. For example, in drug or toxics litigation plaintiffs will have been exposed to the hazardous substance at different times and for different lengths of time. Unless the earlier judgment specifies the time or times at which the defendant’s conduct began to subject it to liability, that judgment will have no collateral effect in subsequent cases involving plaintiffs exposed at times slightly different from the earlier plaintiff. Yet the plaintiffs in the earlier case normally will have very little incentive to structure a case so that its judgment may subsequently have preclusive effect.

Finally, in mass disaster litigation the choice of the case that is to have preclusive effect on later disputes is crucial. A number of similar cases probably will be proceeding simultaneously; if the resolutions of the issue or issues they share are inconsistent, any designation that one will have preclusive effect in subsequent litigation would ignore the others and would be utterly arbitrary. This kind of arbitrariness can be avoided only by severely limiting the number of cases in which collateral estoppel is available.

In sum, when collateral estoppel is applicable, it is collective in the extreme, although the collective responsibility it reflects is one-directional. The victory of an early plaintiff relieves subsequent plaintiffs of the responsibility for proving the components of their claims, without placing any additional responsibility on these subsequent plaintiffs. Nonetheless, collectivization in mass tort cases through this doctrine is likely to be unusual. Taken together, the current limitations on the use of collateral estoppel deprive the doctrine of much of its capacity for reducing administrative costs and achieving equity among plaintiffs in mass tort litigation. The plaintiffs’ seventh amendment right to trial by jury and concern

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72 See, e.g., Hardy v. Johns-Manville Sales Corp., 681 F.2d 334, 344-45 (5th Cir. 1982).
74 The doctrine therefore will be of use only when a first plaintiff has prevailed (presumably both at trial and on appeal) and a second then invokes the doctrine and is sustained on appeal before any inconsistent verdicts in other trials are entered. If inconsistent verdicts are entered before the second plaintiff’s use of the doctrine is considered on appeal, then the appellate court could not affirm without the arbitrariness just described. Given the time involved in trying a case to a verdict and appealing it, a defendant will easily prevail at trial in at least one case and thereby render the doctrine unavailable in the remainder of the untried cases raising the same issue.
for fairness to defendants imbues the doctrine with a heavy—and probably appropriate—emphasis on individual responsibility.

2. Class Actions

In contrast to collateral estoppel, which depends on fortuitous structuring of preclusive litigation and the absence of inconsistent verdicts to be effective, class actions might combine claims in a way that avoids both these obstacles. Class actions therefore have considerable potential to promote the equity principle and to reduce administrative costs in mass tort litigation. They might serve the equity principle by deciding common issues in one piece of litigation rather than in a series, and they might reduce the costs of litigation in the same fashion. In short, class actions might be a powerful device for collectivizing responsibility among plaintiffs.

Class actions nevertheless have not realized their full potential for achieving these aims. As long ago as 1966, the Federal Rules Advisory Committee Note to Rule 23, the federal rule of procedure governing class actions, stated that:

A "mass accident" resulting in injuries to numerous persons is ordinarily not appropriate for a class action because of the likelihood that significant questions, not only of damages but of liability and defenses to liability, would be present, affecting the individuals in different ways. In these circumstances an action conducted nominally as a class action would degenerate in practice into multiple lawsuits separately tried.


Indeed, one can paint a picture of what would happen if the obstacles to the use of collateral estoppel were removed that looks very much like a class action. Other potential plaintiffs would have an incentive to help finance the first plaintiff's claim because they could benefit greatly themselves if the claim succeeded. The major difference between this state of affairs and a class action would be the absence of mutuality—in subsequent cases the defendant would be precluded from relitigating issues decided against it, but as non-parties to the earlier suit, new plaintiffs would not be precluded by any earlier determinations favorable to the defendant. Class actions avoid much of this potential violation of the equity principle.

Although the use of class actions may thus streamline litigation, they may also make possible some small claims that would not otherwise be lodged if they had to be separately litigated. In this way class actions may actually increase, rather than reduce, overall litigation costs. See Weinstein, Some Reflections on the "Abusiveness" of Class Actions, 58 F.R.D. 299, 300 (1973).

Although the Advisory Committee's pessimism was not entirely warranted, it was partly correct. Interpretations of Rule 23 have placed substantial practical obstacles in the paths of plaintiffs wishing to invoke it. Decisions of the Supreme Court require plaintiffs bringing class actions to pay the costs of providing notice to class members.\textsuperscript{79} This is a very expensive process in mass tort cases that involve hundreds or thousands of persons whose identities may be unknown. The Court also has held that each of the named plaintiffs in a class action must satisfy diversity of citizenship demands\textsuperscript{80} and that all plaintiffs must meet the amount in controversy requirement.\textsuperscript{81} Taken together, these requirements undoubtedly foreclose a considerable amount of federal class action litigation in mass tort cases.\textsuperscript{82}

Two other considerations have further limited the success of the class action in collectivizing responsibility among plaintiffs. First, as heavily collective as a class action is when it is operative, the federal approach is often optional, allowing plaintiffs to combine their forces and fates if they wish, but usually permitting those who wish to go their own way not to join the class.\textsuperscript{83}

\textsuperscript{82} See Mullenix, Class Resolution of the Mass Tort Case: A Proposed Federal Procedure Act, 64 Tex. L. Rev. 1039, 1047-60 (1986) (discussing the imperfect fit between Rule 23 and the problems of mass torts).
\textsuperscript{83} Rule 23 provides for several situations in which, once a class action is certified, all members must join the class. See Fed. R. Civ. P. 23(b)(1). These are obviously the most powerful forms of class action because they assure both the maximum economy and the most fidelity to the equity principle. Two are most important to this analysis. In the first, an action can be certified if separate actions could result in inconsistent verdicts producing incompatible standards of conduct. Id. 23(b)(1)(A). Although this provision may appear to solve the problem that makes collateral estoppel so rarely available in mass disaster litigation, in fact it is inapplicable to cases that pose only the possibility of inconsistent verdicts in claims for money damages. The provision would apply to mass tort litigation only when the defendant simply could not comply with all potential orders that might be issued if the action were not certified for class treatment. See In re Bendectin Prods. Liab. Litig., 749 F.2d 300, 305 (6th Cir. 1984); McDonnell Douglas Corp. v. United States Dist. Court, 523 F.2d 1083, 1086 (9th Cir. 1975), cert. denied, 425 U.S. 911 (1976).

The second situation in which an action can be certified as mandatory occurs when sepa-
responsibility, with both its benefits and burdens, is available through the class action, but individual responsibility is not foreclosed for the plaintiff who wishes it.

The major limitation of this approach is the obvious one. When participation in the class action is not mandatory for members of the class, individuals may opt out to pursue their claims separately. In this manner a class may break apart, causing excess expense and the inequitable resolution of similar cases. In cases where the prospect of liability is so great that for practical purposes the defendant has only a limited fund available to compensate all plaintiffs, class members who do not opt out may find that the fund has been exhausted before the class action is resolved because of the greater time it takes to litigate class actions.  

rate adjudications by some members of the class would be dispositive, as a practical matter, of the interests of other members of the class. See Fed. R. Civ. P. 23(b)(1)(B). The most important application of this section to mass torts should come in cases of prospective insolvency of the defendant. See Proposed Amendments to Rules of Civil Procedure for the United States District Courts, supra note 78, at 101. Whenever a limited fund (in comparison to the potential damages that are awardable) is available to compensate class members, their interests would be prejudiced if recoveries by early plaintiffs exhausted the defendant's assets. Certification of a class action in such cases promotes equity among plaintiffs by collectivizing the risk of insolvency on the part of the defendant.

Setting aside the difficulties of determining in advance when this threat is sufficiently real to warrant certification, one notable decision threatens this provision's usefulness. In a case growing out of the collapse of the skywalk in the Kansas City Hyatt Hotel in 1981, the United States Court of Appeals for the Eighth Circuit held that the Federal Anti-Injunction Act is violated by mandatory certification when claims by class members are pending in state court. The court reasoned that certification would constitute an injunction against the prosecution of these claims. See In re Federal Skywalk Cases, 680 F.2d 1175, 1180-81 (8th Cir.), cert. denied, 459 U.S. 988 (1982). If this decision holds, few mass tort claims will be certifiable as mandatory class actions, because of the likelihood that at least one class member will file an action in state court before the time certification would otherwise be granted by the appropriate federal court.

A second weakness of this form of class action, however, may also be a strength. The touchstones for certification of a class action that are optional for class members are the predominance of common questions of law or fact over individual ones and the superiority of class over separate adjudication of the controversy. See Fed. R. Civ. P. 23(b)(3). These two standards are sufficiently vague that courts presented with requests for certification have considerable discretion in deciding whether to certify. For example, the predominance standard does not indicate whether class action treatment is appropriate in cases where different claimants would be subject to the liability rules of different states because of choice of law rules. See In re Northern Dist. of Cal. Dalkon Shield Litig., 693 F.2d 847, 850-52 (9th Cir. 1982) (reversing certification of class action for punitive damages that involved plaintiffs from 50 states). Nor does the superiority requirement preclude certification on the ground that the cost of individual litigation would be prohibitive.

When this discretion is combined with that entailed in the courts' authority under Rule
A last reason for the limited success of the class action device is that, given the present state of some substantive rules of liability, class action treatment actually would be inappropriate in a number of mass tort cases. For example, different state choice of law rules may render the legal issues applicable to the different claimants variable. Likewise, the factual circumstances under which plaintiffs have been injured or exposed to danger may vary so greatly that individual, rather than common, issues predominate.\textsuperscript{85}

Nonetheless, courts could adopt more flexible approaches to class actions than these limitations suggest.\textsuperscript{86} The predominance of common over individual issues—one of the requisites to class action certification—is a comparative question, but the key is to isolate the sets of issues to be compared. If the individual issues to be compared with common issues are defined as all those that must be decided to resolve the claims of all the victims of the accident in question, common issues may not predominate. In many mass tort cases, however, the court can identify subclasses of claimants who share enough common issues for these to predominate over the individual questions and can certify these subclasses in accordance with Rule 23's dictates.\textsuperscript{87} For example, in a mass exposure case where victims have been exposed during different periods, the court could certify subclasses based on periods of exposure, perhaps by keying the subclasses to periods when the defendant's knowledge of the dangers in question increased. Claims regarding standards of care and causation that are chronologically distinct

\textsuperscript{23} to certify actions with respect to particular subclasses and issues, see Fed. R. Civ. P. 23(c)(4), the flexibility of the Rule and the power of the judge presented with a request for certification of optional actions is apparent. See, e.g., Ouellette v. International Paper Co., 86 F.R.D. 476, 480 (D. Vt. 1980); Payton v. Abbott Labs, 83 F.R.D. 382, 387 (D. Mass. 1979), vacated on grounds that a predominance of common issues no longer existed, 100 F.R.D. 336 (D. Mass. 1983). Through these devices the courts can assure that common issues are decided in common, while they resolve separately issues and problems which do not warrant common treatment. Nonetheless, this flexibility and discretion have prompted some courts to take to heart the Advisory Committee's 1966 dictum and to refuse to certify individual issues that might well be better resolved through class treatment, on the ground that common questions did not predominate over individual ones. See, e.g., In re Three Mile Island Litig., 87 F.R.D. 433, 441-42 (M.D. Pa. 1980).

\textsuperscript{85} See, e.g., In re Northern Dist. of Cal. Dalkon Shield Litig., 693 F.2d 847, 853-55 (9th Cir. 1982).

\textsuperscript{86} For an argument in favor of vastly increased use of class actions in mass exposure cases, see Rosenberg, supra note 39, at 908-16.

\textsuperscript{87} See Fed. R. Civ. P. 23(c)(4).
then could be segregated and considered in groups.

Decisions on these and other flexible methods of certifying class actions in mass tort cases follow no consistent pattern. The courts seem to be "ad-hocing" in ways that defy characterization. In the absence of a strong trend toward the use of class actions in mass tort cases, a third device for streamlining litigation and promoting equity among plaintiffs is worth examining.

3. Stare Decisis

More than a century ago, Holmes predicted the increasing use of stare decisis in accident cases. As prescient as Holmes may have been on other matters, this prediction has not stood the test of time. In traditional accident cases fact situations usually have been considered too varied to fall into the kinds of patterns Holmes envisioned. Modern courts, less burdened with the nineteenth-century distrust of jury discretion, have been comfortable submitting a wide range of questions to juries. Nonetheless, stare decisis is a potentially powerful method of importing collective responsibility into mass disaster litigation. By assuring uniformity in the decision of legal issues, the doctrine can serve the equity principle; by predetermining the answers to some questions and making others predictable, it can help to reduce the cost of resolving legal disputes.

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**"But supposing a state of facts often repeated in practice, is it to be imagined that the court is to go on leaving the standard to the jury forever? Is it not manifest, on the contrary, that if the jury is, on the whole, as fair a tribunal as it is represented to be, the lesson which can be got from that source will be learned? Either the court will find that the fair teaching of experience is that the conduct complained of usually is or is not blameworthy, and therefore, unless explained, is or is not a ground of liability; or it will find the jury oscillating to and fro, and will see the necessity of making up its mind for itself." O. Holmes, The Common Law 98 (1881).**

**In the few situations that are sufficiently homogeneous to warrant the treatment Holmes recommended—rear-end collisions, for example—settlements in the shadow of the legal rule occur so frequently that the cases are litigated only rarely.**
The capacity of stare decisis to achieve these ends depends on what constitutes a legal, as distinct from a factual, question. Here the problem posed by Holmes comes to the fore. A factual question has traditionally been one on which reasonable people could reasonably disagree. But this formulation does not clarify why a court, trying a series of claims arising out of the same or very similar mass accidents and seeing juries “oscillating to and fro” on the same mixed questions of law and fact, should continue to submit these questions to a series of juries.

A typical dangerous exposure accident illustrates the dilemma faced by a court confronting the problem of inconsistent jury verdicts in identical cases. Assuming that the court takes seriously the Advisory Committee’s dictum that class actions normally are not appropriate in mass accident cases and does not certify such an action, a series of identical or closely similar cases results. If the first case tried to a jury is decided for the defendant, collateral estoppel is not available in the second case, which the jury decides for the plaintiff. These inconsistent verdicts render collateral estoppel on common issues unavailable in any of the remaining cases. The court now has two options open to it. One option is to ignore the equity principle and to entertain, perhaps into the next decade, a series of separate lawsuits, with all their corresponding costs. The other option is for the court to “see the necessity of making up its mind for itself,” as Holmes suggested, and to decide as a matter of law the issues that otherwise will have to be litigated repetitively as subsequent cases come to trial.

At first glance the option of finding a course of conduct to be negligent (or not negligent) as a matter of law may seem inappropriate when there are preexisting verdicts that are inconsistent with such a finding. Yet this is inconsistency no different in impact from what occurs whenever a rule of law (as opposed to a finding of fact) is overturned. Although the system might have to tolerate a few inconsistent pre-existing verdicts under this approach, it could avoid many more by assuring equity among plaintiffs in future cases. The approach would treat future plaintiffs collectively, as stare decisis always has, by removing constantly recurring issues from the realm of jury discretion.

The strongest argument against such a move applies generally not only to stare decisis, but also to limitations on the use of collateral estoppel and class actions in mass tort cases. The individual
responsibility norm so evident in the rules governing the application of these three devices is the touchstone of the argument. The stance the law takes in this field is that equity among plaintiffs and economy in litigation are values that hold if other things are equal, but that the interest in individual control of litigation and individualized determination of legal rights may trump those values in virtually all cases.

This conclusion may simply reflect the notion that when individual claimants desire, their rights may properly depend on the effort, resources, and skill they invest in establishing or defending these rights. To force claimants to bear collective responsibility for the outcomes of their claims would transgress this principle. Plaintiffs may join voluntarily and bear collective responsibility under some circumstances, but ordinarily they will not be forced into such a position. Class actions in mass tort cases therefore are normally optional, and stare decisis is rarely used to take mixed questions of law and fact from the jury.

Although this explanation is plausible, it fails to account fully for the law's willingness to employ doctrines that, through the creation of substantive collective responsibility, join together the fates of defendants in these same cases. If control over one's own fate is so highly valued, why is it afforded more easily to plaintiffs than to defendants? This difference in treatment calls for a better explanation.

A second way to account for the curious mixture of individual and collective responsibility in the procedural doctrines governing mass torts is that the law in this field attempts to hedge against its own imperfections. Uncertainty about the accuracy and justifiability of the results produced by substantive collective responsibility doctrines may demand significant limits on the reach of collective responsibility procedures. The hedge is possible because the current formulations of the procedural rules allow outcomes to vary from case to case, even when collective responsibility rules on matters of substance are employed. The possibility of variation is a method of diversifying the risk of legal error by distributing it among a series of individual cases. Thus, the more certainty the system has that the results produced by a substantive collective responsibility rule are justified, the greater should be its willingness to adopt collective procedures. Conversely, the less certain the justification for collective responsibility, the more caution that
must be exercised to limit the collective effects of the procedures used. On this view, the additional cost of litigating many mass tort claims individually constitutes the premium that the legal system is willing to pay to diversify the risk of error in its use of collective responsibility rules of substantive liability.

In sum, having adopted rules of collective responsibility that allow tort claims that would otherwise fail or could never even be brought, the law has severely limited its own ability to manage this litigation. Paradoxically, mass tort law has adopted procedural rules that fail to solve problems of equity among plaintiffs and multiply the cost of litigation in order to guard against weaknesses in the substantive rules of collective responsibility that bring these two problems into being. This may be the most telling of all the criticisms that can be leveled at the developing substantive rules.

III. Confronting the Dilemma

The problems posed by mass tort litigation are diverse, and, apart from the size of the plaintiff class, no single set of characteristics defines the mass tort. Running through each of the principal problems that tend to be raised by mass tort litigation, however, is the tension between the traditional notion of individual responsibility and the expanded notion of collective responsibility. Only by confronting the dilemma created by this tension can the tort system clarify what is at stake in determining the shape of mass tort law.

Several generic responses to the dilemma are possible. One is to hold fast to the traditional notion of individual responsibility, by refusing to establish special tort, insolvency, and procedural rules governing mass torts. Another is to take the path on which the law seems to have embarked, by expanding existing rules as they apply to mass torts and thereby importing notions of collective responsibility into the system. A critical issue posed by the current move toward more collective responsibility, however, is what is gained by doing so.

Certainly the deterrent effects of imposing liability on a collective basis are speculative at best.91 Perhaps the move can be ex-

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1 For an argument that even the traditional tort law system fails to achieve its deterrence goals, see Sugarman, Doing Away with Tort Law, 73 Calif. L. Rev. 555, 559-91 (1985).
plained instead as an effort to retain the sense of popular control over large enterprises and institutions that in other respects are thought to control the populace. Cost internalization may thus have moral, or at least symbolic, as well as economic connotations. Yet as the analysis in Part II suggested, collective responsibility doctrines tend to promote at best a very attenuated form of cost internalization. In almost every case the only obvious gain from moving toward collective responsibility is that the move facilitates the compensation of victims. This is the principal effect of more collective rules governing the standard of liability, proof of causation, and insolvency, and it must also be counted as one of the major aims of the procedural devices that create collective responsibility among plaintiffs.

The costs of extending compensation to victims through rules of collective responsibility in this manner, however, are high. Litigation in cases involving scientific uncertainty, for example, can be complex and lengthy. Insolvency proceedings in which the interests of early and late tort claimants, creditors, and shareholders conflict may require the intricate negotiation and reorganization of rights. In cases where the gains in deterrence and equity are substantial, these costs may be worth paying, but when the magnitude or the very existence of these gains is questionable, as it often is in cases where collective responsibility is invoked, the only remaining gain—the extension of compensation to victims—may be obtainable in other settings at a lesser cost.

Two other approaches can make use of nonadjudicatory systems to provide compensation to victims. The first is to create special administrative compensation funds to deal with the damages caused by mass torts. Such an approach would attempt to circumvent many of the problems that arise when collective responsibility is invoked in a system designed for the application of individual responsibility. A second and preferable approach is to return to the traditional system of individual responsibility in tort, but to link that return to tradition with expanded forms of first-party com-

pensation for accident victims. This approach not only would recognize the problems posed by an increased emphasis on collective responsibility in tort law, but also would avoid the difficulties encountered in constructing administrative compensation funds. Furthermore, it would acknowledge that the appeal of these alternatives is that they facilitate the compensation of victims. Without an alternative compensation source, the lure of collective responsibility will remain strong, and the effort to retain individual responsibility in tort will be continually undermined.

A. Administrative Compensation Funds

A system of administrative compensation funds that displace or supplement the tort system is the first possible alternative for dealing with the consequences of mass accidents. Such funds can make increased use of the rules of collective responsibility but can apply them through a method and in a forum constructed specifically for the invocation of collective responsibility. At both the federal and state levels, funds that are in some ways analogous to those proposed for application to mass accidents have been established for limited purposes. The federal "Superfund" for cleaning up hazardous waste storage sites is perhaps the most notable, but others, such as the Black Lung Disease Fund, also are in place, and a number have been proposed. Even so common a program as the workers' compensation system can be considered a distant relative. Unfortunately, the obstacles to the effective implementation of the approach are so serious that it cannot now be considered a feasible way to solve the dilemma posed by large-scale accidents.

On paper the operation of a fund would be appealingly simple. Assessments would be made against enterprises creating the risk of

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the kinds of injuries to be compensable by the fund. These assess-
ments would be pooled, and the fund thereby created would fi-
nance the payment of compensation. The injuries to be made com-
пensable by the fund would be defined, and a right to recover from
the fund in an administrative proceeding—a right that could be
equally or more collective than the tort rights it replaces—would
be created. Among other factors, the measure of compensation
would take account of the sums available to the fund.

In theory a fund set up in this way could resolve or circumvent
many of the problems that are characteristic of mass tort litiga-
tion. Because claims would no longer involve individual defendants
with assets at stake, many of the traditional rules and procedures
developed by tort law to assure that no liability is imposed without
some individual responsibility would be irrelevant. In addition, the
new rules of collective responsibility could be applied without the
procedural and substantive safeguards of individual rights that
now raise the cost of resolving mass accident disputes through full-
scale adjudication.

As appealing as this prospect is, however, none of the available
methods of structuring funds would solve enough of the problems
of principle and practice that funds would pose to make them at-
ttractive as a general alternative. Rather, only in the unusual case
would the construction of a fund be sensible. To see why this
would be so, an examination of the three major issues a fund must
confront in striking a balance between individual and collective re-
ponsibility is useful. These issues involve: 1) the events to be com-
pensable by a fund; 2) the method of financing the fund; and 3)
the measure of compensation awarded to eligible victims.

1. The Compensable Event

The events triggering a claimant's right to receive compensation
from a fund might be defined to circumvent many of the problems
posed by tort litigation against individual defendants. For exam-
ple, the compensable event could be defined by reference to a des-
ignated outcome (e.g., contracting a particular disease or suffering
a particular kind of injury), as well as, perhaps, by reference to

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86 See infra notes 110-116 and accompanying text.
other prerequisites (e.g., exposure to a substance capable of causing the particular disease or injury). A party causally responsible for the claimant’s injuries would have neither the incentive nor the opportunity to litigate causation issues, because no enterprise would be held responsible by the fund for any particular injury. Consequently, few of the incentives that increase the cost of conventional mass tort litigation would operate in a proceeding against the fund.

Moreover, this approach to the definition of the compensable event would almost automatically eliminate the procedural problems that typically afflict mass accident litigation. Nothing would encourage a fund to treat the central factual issues in a series of identical claims as questions of fact that could be decided differently in different instances. Rather, like cases could easily be treated alike by a fund, which would have institutional memory and rules to assure that those injured under circumstances considered identical receive treatment that does not violate the equity principle. The enormous difficulties of using collateral estoppel, class actions, and stare decisis in tort litigation to reduce the costs of resolving claims and to promote equity among plaintiffs could be transcended easily.  

Another advantage of this approach to defining the compensable event would be its capacity to avoid some of the problems of proving causation that plague mass tort litigation. No longer would proof of source causation be required, because a fund would eliminate the plaintiff’s obligation to identify the particular party or enterprise responsible for his injury. Exposure and substance causation still would require proof, but the former is often not a problem, and the latter could be handled in new ways that would take advantage of the fund’s capacities. For example, factual presumptions based on existing scientific data or developed by the fund’s scientific staff could aid the claimant’s efforts.  

In cases where the

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**As I suggested above, fidelity to the equity principle is not always a virtue. A fund would have the capacity to make compensation decisions categorically; but this would be a capacity to be categorically incorrect as well as categorically correct. Instead of hedging in the manner of the current system by limiting the scope of the equity principle, a fund would take a different approach: it would hedge by exercising restraint in designating compensable events and by periodically revising the probability calculations and presumptions on which its measure of compensation would be based.**

**See Study Group Report, supra note 95, at 213-19.**
claimant suffered a signature disease, the claimant might be entitled to recovery unless a special reason to believe the disease had a different cause in his case could be demonstrated.

It would be a mistake, however, to suppose that this technique would solve all the problems of proving causation encountered in conventional mass tort litigation. A large percentage of potential claims—perhaps even the vast majority—would involve sufficient causal uncertainty that indulging in presumptions would be factually unwarranted. Certainly this would be true whenever the probability that the claimant’s injury or disease was caused by an event covered by the fund was substantially less than fifty percent. Any presumption of causation in such cases would produce more inaccuracy than would the wholesale denial of claims, even if some of these in fact would merit compensation. Eventually the fund might accumulate enough data to support a large body of presumptions, but the length of time necessary to develop such a data base cannot be estimated with certainty. In any case, that data might well demonstrate that most of the diseases resulting from mass torts have other causes, in which case few presumptions would be warranted.

Two possible arrangements could deal with the prospect of uncertain substance causation. The fund could offer compensation only for a set of designated compensable events (those for which factual presumptions of substance and exposure causation are warranted) and leave persons suffering other diseases to their traditional causes of action in tort, to the extent that they could meet their burdens of proof. The defect of this approach is that it might severely limit the jurisdiction of a fund, because the number of situations in which causal presumptions would be factually warranted might be comparatively small.

An alternative arrangement could permit a fund to offer compensation to all those with diseases allegedly caused by events compensable by the fund, but to offer it on an ex post probabilistic basis. No presumptions would be required, although they might be used. Claimants would receive only that percentage of their losses

100 For a discussion of the accuracy implications of the different rules governing the proof of causation in conventional tort law, see Rosenberg, supra note 39, at 861-77.
101 This would create a two-tiered system resembling that proposed by the Superfund Study Group. See Study Group Report, supra note 95, at 193-205.
equal to the probability (as understood at the time of the claim) that the loss was caused by an event compensable by the fund—that is, by the activities of one or more contributors to the fund. Thus, if the probability that the claimant's disease was caused by a compensable event were thirty percent, then the claimant would receive thirty percent of his compensable losses.

To take account of potential changes in scientific knowledge of causation, claimants might be offered the choice between the lump-sum payment of their losses, discounted by causal probability and paid on a present-value basis, and the periodic payment of their losses, making them eligible for increases, but vulnerable to decreases, in the payments based on annually recalculated probabilities.102 For several reasons, however, the problems of administering this second approach could prove to be enormous. First, sufficiently precise data to warrant estimating causal probabilities might not be available in many of the cases that would otherwise be subject to a fund's jurisdiction. Second, because the compensation paid would be partial, the inclination of decisionmakers to tailor their findings to a claimant's needs might be strong, causing the cost of operating the fund to rise. Finally, a variable periodic payment approach could be vulnerable to continual disputes about award levels, also driving up the costs of a fund's operation. In short, given the current state of scientific knowledge, precise enough definitions of compensable events to warrant the widespread use of funds probably are not feasible.

2. Financing

The method of calculating the assessments that finance the fund would be integral to achieving any incentive effects that the fund could create. The more crudely calculated the assessments, the more collective the system of responsibility that the fund would implement. The problems posed in developing financing for a fund involve the structuring of assessments, the risk of contributor insolvency, and the scope of retroactive liability.

Assessment structure. The fund could be financed in one of two

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102 This suggestion is derived from Professor Mark Roe's ingenious proposal for compensating tort claimants in bankruptcy reorganizations based on an analogy to a variable annuity. See Roe, supra note 62, at 871-74.
major ways. It could assess what might be called *quantity-based* charges against the enterprises responsible for contributing to the fund. These charges would affect production or activity levels but would have little impact on safety levels. For instance, charges against the manufacturers of chemical feedstocks\(^{103}\) based on volume and toxicity would influence the cost of the feedstocks. This would affect the amount of each that is produced and, in turn, the amounts of hazardous substances produced. However, such quantity-based assessments could have no effect on the level of safety at which the activities using these substances were conducted, because the charges levied would not vary with these levels of safety.\(^{104}\)

In contrast, *quality-based* assessments could affect safety levels. Charges against the operators of hazardous waste storage dumps, for example, might distinguish between different methods of containment, the distance of the dump from population centers, and other safety-related factors. Quality-based standards could be supplemented by experience-rating that would vary assessments in accordance with the number of injuries clearly caused by an enterprise's activities. The choice between the two assessment systems would be problematic. Quantity-based assessments usually would be simpler to administer than quality-based standards, even without supplementing the latter with experience-rating, but quantity-based standards probably would have inferior incentive effects, except when safety levels varied only within a narrow range and when the research incentives created by quality-based assessments were weak.\(^{105}\)

Given current levels of knowledge about causation, however, optimism that a fund's assessment structure could permit fine-tuning of the safety incentives of the enterprises subject to the assessments would be unwarranted.\(^{106}\) Indeed, in light of the unpredictability of many mass accidents, some parties causing them probably would not have been assessed charges at all, because the

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\(^{103}\) Chemical feedstocks are basic chemical compounds used to produce more complex, sometimes hazardous substances.

\(^{104}\) For a more detailed analysis, see K. Abraham, supra note 12, at 53-54.

\(^{105}\) Such incentives are weakest when the potential dangers are unknown and a research focus therefore is not preordained, when the necessary research requires a high capital investment, and when the industry in question is relatively unconcentrated.

\(^{106}\) See Sugarman, supra note 91, at 636-41.
administrators of the fund had not anticipated these parties’ potential responsibility for future injuries. The less predictable an accident, the more difficult it is to deter with any system of responsibility, whether applied by a fund or by the tort system.

Even in many cases of total unpredictability, however, and certainly in those where some crude charges had been assessed, the safety incentives created by a fund probably would be no more crude and diffused than those produced by the current tort-law mixture of individual and collective responsibility, but they probably would not produce deterrent effects more precise than those generated by tort law either. I reach this conclusion because the administrators of a fund would know and make use of roughly the same information that liability insurers now know about their policyholders. The dilution of incentives resulting from the collective, categorical character of the fund’s assessment structure would not necessarily differ from that now produced by the effects of joint and several liability, market share liability, and the other collective causation doctrines that appear to be growing in influence. Therefore, to the extent that the present liability and self-insurance of responsible enterprises has been priced or calculated to account for these collective responsibility doctrines, the shift to funds financed by these enterprises would neither sacrifice the incentive-creating capacity of the mass tort system nor increase it substantially.

The Risk of Insolvency. Because of the fund’s method of financing, it would allocate the risk of insolvency quite differently from conventional tort and bankruptcy law. A fund would remain liable to claimants even after parties that caused their injuries might become insolvent; consequently, the risk of misdistribution of a responsible party’s assets among tort claimants would be eliminated. In effect, contributors to the fund would share the risk that one or more of their number might become insolvent after the adoption of the fund.

On the surface this form of risk-sharing would appear to result in more equitable relations among firms who would previously have been codefendants in tort claims brought by the victims now compensated by the fund. Under the developing tort rules governing the apportionment of damages among codefendants, each defendant is held jointly and severally liable for indivisible injuries caused either jointly or cumulatively by the defendants. For example, the coincidence of being a codepositor in a waste disposal site
can produce an obligation not only for one's own actions but for those of codepositors as well, should such codepositors be insolvent at the time of the judgment.\textsuperscript{107} The formal risk of such fortuitous liability would be greatly reduced by a fund, which forces all solvent contributors to share the risk of their cocontributors' insolvency.

The scope of the risk-sharing produced by a fund would depend on the nature of the fund's assessments. The longer the latency period between the risk-creating act and the occurrence of a compensable event, the greater difficulty the fund would experience in setting the assessment rates. If in the long run the rates charged a group of enterprises were excessive, the group would bear less of the risk of the insolvency of its members than if the rates charged were too low. Assessments could be deliberately set higher than the predicted exposure requires, as a kind of premium paid by each enterprise for protection against the risk of asset diversion by the shareholders and creditors of other enterprises. If an enterprise became insolvent, a cushion against this risk of insolvency would have accumulated, and assessments might not have to be increased to account for the loss of a contributor. In the absence of insolvencies, any excess could inure to the benefit of contributors through reduced (or less steeply increased) rates.

The consequence of this arrangement is that no single potentially responsible party would be forced to bear the cost of liability caused by multiple insolvent or unavailable responsible parties. However, because individual defendants frequently would be insured against such liability anyway, and because the cases which consist of only one rather than a group of solvent defendants would probably be uncommon, this improvement in equity among defendants often would be more theoretical than real.

A fund's method of financing also might have some impact on the uncertainty costs presently produced by the risk of a responsible enterprise's insolvency. To the extent that a fund could impose retrospective assessments on a contributing enterprise to account for any emerging evidence of the injuries caused by the enterprise's past activities, analogous uncertainty costs would remain under the fund. Although placing limits on retrospective assessment would reduce this uncertainty, the limits would have at least one undesir-

able effect. Limiting retrospective assessment would create a moral hazard, because an enterprise enjoying such protection would in effect be provided with unlimited insurance against liability. Other enterprises contributing to the fund would bear collective responsibility for the consequences of this hazard. Because both the emerging rules governing collective causation and the protections against liability provided by bankruptcy law create analogous moral hazards, however, limiting retrospective assessment might not be so objectionable in fact as it seems to be in theory. Nonetheless, if limiting retrospective assessment by a fund were considered unacceptable, then the uncertainty costs produced by unlimited liability would remain even under the fund.

The Problem of Retroactive Liability. The last critical question bearing on the financing of the fund would be whether those who were exposed, before the establishment of the fund, to a hazardous substance, drug, or other activity subject to the fund’s jurisdiction, but who manifested the relevant injury or disease after the establishment, would be entitled to compensation. There are a number of alternatives. First, the parties could be denied compensation from the fund and allowed a traditional tort cause of action. In light of the long-latency period of many of the diseases that would be covered by some sort of administrative fund, however, this approach would preserve for thirty or more years most of the problems the fund had been created to solve.

Second, these long-latency claimants could be allowed to recover from the fund, but their share of compensation could be paid out of general revenues rather than through assessments against contributing enterprises. The feasibility of this approach, of course, might by influenced by the limits of the federal budget.

Third, assessments financing the fund could be set to anticipate not only the claims arising out of future activities of enterprises financing the fund, but also to reflect the past activities of both these firms and other firms no longer in existence. This alternative would achieve the same aims as does the imposition of strict liability in tort for the failure to warn of or remedy unknowable dangers, but here the “retroactive” obligation would be imposed broadly on all fund contributors rather than on particular defendants.¹⁰⁸

¹⁰⁸ While the question has not been completely settled, retroactive assessments of this
This last approach also would pose practical problems. Not only would responsible enterprises be relieved of tort liability for their past activities, but their liability insurers also would be relieved of contractual responsibility for defending claims and paying judgments that could no longer be entered against their policyholders. In a sense these insurers would be unjustly enriched unless they were required to contribute to the portion of the fund used to compensate the victims of activities occurring before the establishment of the fund. Yet no fair formula for such a contribution could be fashioned without predicting the exposure these insurers would have faced had the fund not been established, and such a prediction would be quite speculative. Enterprises that had paid large insurance premiums could nonetheless justifiably demand some such contribution from their insurers before they would support the establishment of a fund.\textsuperscript{109}

3. The Measure of Compensation

In a very real sense the measure of compensation adopted by a fund would be the key to its feasibility, because the cost of compensating victims through a fund inevitably would be a prime issue in evaluating the proposals for establishing it.\textsuperscript{110} The tension between the two models of responsibility is therefore reflected in the issues surrounding the choice of a measure of compensation. The focal point of this tension is the fact that a principle of full compensation, including payment for pain and suffering associated with personal injury, obtains in tort law. A fund almost certainly sort probably are constitutional. See Usery v. Turner Elkhorn Mining Co., 428 U.S. 1 (1975) (upholding legislation which provided for retroactive benefits to victims of black lung disease).

\textsuperscript{109} Conceivably a crude formula based on the amount of unexhausted coverage could be used. Different percentages would have to be set for primary and excess coverage. A more complicated formula, accounting for the difference between occurrence and claims-made policies, might be required as well. For a description of the difference between occurrence and claims-made insurance policies, see K. Abraham, supra note 12, at 49-51. One model that might be used is the “Wellington Accords” on the contribution responsibilities of the companies providing liability insurance for asbestos manufacturers in cases involving multiple coverage. See Wellington, Asbestos: The Private Management of a Public Problem, 33 Clev. St. L. Rev. 375 (1984-85). But the Wellington Accords were voluntary; a mandatory contribution to a fund established for mass tort claims might be impossible.

\textsuperscript{110} For example, the cost of the Superfund Study Group’s proposal, using a no-fault system, has been estimated by the American Insurance Association at $29 billion per year. See Connolly, Responses to Kenneth R. Feinberg, 24 Hous. L. Rev. 175, 179 (1987).
would have to deny compensation for such intangible losses, because the limitation of recovery to more objectively provable out-of-pocket losses would be necessary both to avoid disputes not easily resolved without fact-finding proceedings and to limit the total cost of providing compensation.\footnote{One sure way to drive up total compensation costs and thereby undermine any administrative system would be to allow victims to recover both from the fund and to bring tort actions. Even if the tort recovery were reduced by the amount of compensation paid by a fund, many of the defects of the current system would be preserved by such an approach. The recommended preservation of tort claims was thus one of the major defects of the Superfund Study Group's recommendations. See Study Group Report, supra note 95, at 255-71. Yet, as a practical matter, this kind of compromise probably would be necessary to secure political support for the creation of a fund.}

Although the arguments for awarding pain and suffering damages in tort are plausible, the same arguments are problematic when made in favor of awarding such damages in the administrative context. The cost of litigating many tort claims would be prohibitive in the absence of such awards, because they provide a fund out of which to pay plaintiffs' attorneys without reducing net awards for out-of-pocket losses. But the attorney's role in obtaining compensation from a fund would be much reduced. Additionally, a more subtle tension between the compensatory justification for awarding only out-of-pocket damages when a fund is in place and the deterrence justification for awarding pain and suffering damages in all settings renders the measure of compensation problem more complex. The availability of pain and suffering damages from a fund might complicate (or bankrupt) it to the point of failure; but pain and suffering is a social cost that the contributors to a fund should internalize if a fund purports to be a rough substitute for the tort system.

Proponents of a fund can provide two responses to such a cost-internalization criticism. The first has already been rehearsed: the deterrent effect of collective responsibility for mass torts is so diffuse and ineffective that the shift to a fund would involve little sacrifice in deterrence. A second and quite different response would be to create fund substitutes for the deterrence achieved through the threat of tort liability for pain and suffering or punitive damages. A more logical and controllable alternative to awards for pain and suffering might be to award scheduled death benefits keyed to life expectancy at the age of death and scheduled lump-
sum benefits for other designated disabilities resulting from events compensable by the fund (sterility, blindness, loss of a limb, and so forth). The death benefit probably would cover a large percentage of the events compensable by the fund because, unfortunately, one common event that would be compensable—cancer—very frequently causes death within a few years of its detection or is cured.

Another rough substitute for pain and suffering could be fashioned by granting the compensation fund itself a new form of quasi-subrogation action. For example, this cause of action could be allowed against a particular enterprise only under circumstances where an award of punitive damages would have been available had individual tort claims for compensatory damages not been foreclosed by the adoption of the fund. Because the fund would be entitled to bring only one such action, the threat of over-deterrence through multiple awards of punitive damages that now troubles the tort system would be eliminated.\footnote{The threat of multiple awards for a single course of misconduct has long been a problem in theory. See Roginsky v. Richardson-Merrell, Inc., 373 F.2d 832 (2d Cir. 1967); Owen, Punitive Damages in Products Liability Litigation, 74 Mich. L. Rev. 1258 (1976). In recent years the problem has become a practical one as well. See Jeffries, A Comment on the Constitutionality of Punitive Damages, 72 Va. L. Rev. 141 (1986); Owen, Problems in Assessing Punitive Damages Against Manufacturers of Defective Products, 49 U. Chi. L. Rev. 1 (1982).}

The single action for punitive damages would allow the jury to consider the mass character of the injuries caused by the defendant, a process difficult to arrange in a suit by one or a few of the victims of a mass accident.\footnote{Even this approach would not solve all of the problems in awarding punitive damages in mass tort actions. For example, if the mass accident in question caused serial injuries, the fund could not bring a punitive damage action until a considerable portion of those injuries had manifested themselves, yet it would not always be easy for the administrators of the fund to determine when that point had been reached.} The fact that any award would be paid to the fund and would help to compensate large numbers of victims, rather than be a windfall to a single plaintiff, would also be relevant. All this, however, would be a rather cumbersome and indirect way to retain the deterrent effect of tort liability for pain and suffering damages.\footnote{Under this approach an award of punitive damages should be sought by the fund whenever there are substantial injuries caused by an identifiable responsible party but a large portion of these injuries have not generated successful claims against the fund. This might occur in a number of situations. Injured persons might not know they are injured, or the fund might be unable to distinguish those entitled to compensation from those not entitled, but nevertheless be able to say how many persons in the aggregate had been injured by}
The last problem a fund must face in setting its measure of compensation also would put two goals in conflict. The problem is whether the fund or the claimant's collateral sources (for example, health or disability insurers) should bear the primary responsibility for the losses compensable by the fund. Channelling primary responsibility through the fund might have the activity and production level effects on parties contributing to the fund discussed previously. In contrast, making a claimant's collateral sources primary and denying these sources any rights of subrogation against the fund would protect the financial integrity of the fund. This approach would reduce the activity and production level effects a fund might otherwise generate, because the premiums that victims would pay for health and disability insurance would hide the full cost of injuries associated with the activities of the contributing parties. Yet the possibility of achieving some of these incentive effects would be the strongest argument for using a fund, rather than private first-party coverage or social insurance alone, to compensate the victims of mass torts. These latter forms of compensation have little potential for influencing the behavior of those potentially responsible for causing mass accidents. From this point of view, therefore, the conflict between the cost-limitation and incentive-creation goals should be resolved in favor of the fund as the primary source and a claimant's collateral insurance as only a secondary source of compensation.

the responsible party. The amount of damages awarded should reflect the cost of injuries, including pain and suffering, which otherwise would not be internalized by the responsible party.

Why, then, should the term "punitive" damages be used to describe an award that would be designed so clearly to achieve the ends normally understood to be served by awards of compensatory damages—the promotion of optimal deterrence? Proponents of a fund would have to make the following argument: traditionally, punitive damages are available in tort when the defendant has acted recklessly or with malicious intent to cause harm. In these cases, the expected cost of the risk taken by the defendant far exceeds the cost of avoiding it; therefore, a defendant faced with the prospect of liability for costs so far in excess of the expected benefits would be reckless (or worse) to risk incurring these costs. A rational defendant would take such a risk only if, in fact, it did not expect to face liability for the full costs of the harms caused by the risk. Therefore, optimal deterrence would be promoted under either the tort system or an administrative fund if the defendant who did not otherwise anticipate bearing full responsibility for compensatory damages would nevertheless be threatened with liability for punitive damages roughly equal to the amount of compensatory damage liability that it would avoid.

116 See supra notes 103-106 and accompanying text.
Setting coverage priorities this way, however, would risk forcing the nation's chemical and pharmaceutical companies to finance an under-the-table system of national health and disability insurance. If the fund's compensation criteria were unduly generous and undiscriminating, much of the cost of medical expenses and lost wages resulting from a variety of causes could be shifted to the enterprises contributing to the fund. Some observers have charged that this has been the experience in the black-lung compensation program, albeit on a smaller scale.\textsuperscript{116} To avoid this result, the compensable event and measure of compensation would have to be defined so that only the cost of injuries actually caused by any of the parties contributing to the fund would be paid by the fund. Yet as my discussion of the compensable event indicated, optimism that definitions precise enough to avoid overinclusiveness but broad enough to warrant adoption of a system of funds could, in fact, be fashioned would be unrealistic.

My reluctant but inevitable conclusion, then, is that a system of administrative compensation funds would not be a satisfactory approach to the mass tort problem. The costs of using funds would probably be too great, the obstacles to their effective operation too numerous, and the dangers they would pose too serious to justify their adoption on any but a very limited and experimental basis. At every turn—in defining the compensable event, in financing the fund, and in setting the measure of compensation—the idea of a fund is an attractive but impractical alternative to the collective responsibility that is increasingly evident in tort law.

\textbf{B. Expanded First-Party Insurance}

Almost by a process of elimination, the approach to the compensation of mass tort victims that has the most appeal is a return to a tort system based on a model of individual responsibility, and a reduction of the appeal of more collective concepts of responsibility by expanding existing first-party sources of insurance available to victims. To a large extent this approach would recognize that any deterrence worth achieving through the threat of tort liability

could be achieved by the traditional system of individual responsibility, that the obstacles to the successful operation of administrative compensation funds would be prodigious, and that the compensation afforded by the move toward collective responsibility in tort or administrative systems could be more effectively provided through first-party insurance.

Importantly, this approach would rely on existing forms of insurance; it would not be a special purpose no-fault system and would not require the creation of new forms of coverage available only to the victims of mass torts. This expanded system could be operated either by private entities or by government. In theory either option is feasible, because private insurers now market health and disability insurance, and the federal and state governments now provide health and disability protection through a variety of programs.

Such coverage now parallels the compensation available in tort. For instance, the desire to provide compensation for two major components of out-of-pocket loss—medical expenses and lost wages—currently contributes to the lure of collective responsibility in tort law. Even if concern for the intangible losses of survivors resulting from wrongful death is included as a component of loss, each of the components also is currently insured or insurable through first-party medical and hospitalization coverage, workers’ compensation, life insurance, and first-party disability insurance. A patchwork array of social insurance also provides coverage that sometimes substitutes for or supplements this private insurance. Thus, over eighty percent of the population is protected by medical or hospitalization insurance of some sort, the average family owns over $58,000 worth of life insurance, most of the working population is protected by workers’ compensation against wage loss (as well as medical expenses) resulting from work-related injuries, and this same group also is protected through the Social

117 For example, in 1983 more than 190 million people in the United States had private hospitalization insurance in some form and more than 178 million had insurance against the costs of surgery. See Health Ins. Ass’n of Am., Source Book of 1984-1985 Health Insurance Data 87-88. In 1981 at least 32 million people (some of them included in the figures just cited) had Medicare or Medicaid coverage. See U.S. Dep’t of Commerce, Bureau of the Census, supra note 116, at 107. Estimates of those without any health insurance range from 8 to 16 percent of the population. Health Ins. Ass’n of Am., supra, at 9.


Security Disability Insurance system (SSDI), up to a minimal ceiling, against wage loss resulting from long-term, total disability.\textsuperscript{120} A much smaller percentage of the labor force is protected against wage loss resulting from "non-occupational" injury or disease, especially if the disability in question is partial or short-term.\textsuperscript{121}

Therefore, upon return to a system of individual responsibility in tort, the expansion of first-party coverage that would be necessary to assure compensation for out-of-pocket losses to those who would previously been entitled to tort recoveries would include the following: 1) higher benefits for those with limited medical or hospitalization insurance; 2) medical and hospitalization insurance for the fifteen to twenty percent of the population that is currently uninsured; 3) insurance against wage losses resulting from non-work-related injury or disease not covered (or not fully covered) by social security or existing private disability insurance; and 4) insurance against work-related wage loss substantially exceeding the workers' compensation ceiling.

The cost of all this additional coverage would be immense—tens of billions of dollars at the least. Little of this sum would represent "new" costs, however, because the expansion of coverage would protect against losses that currently occur but are borne by the individual victim. Apart from the overhead involved in extending the coverage, and the increase in claims that inevitably results when more losses are insured, the expansion of first-party coverage would merely spread losses rather than create them. Nonetheless, any attempt to institute an expanded system of first-party insurance would face substantial obstacles and hard choices.

For example, the tort system now provides mandatory protection for victims: with a few exceptions, a potential victim cannot opt to waive future tort rights in return for a present benefit. Consequently, to provide victims with the equivalent of what they would lose upon return to an individual responsibility system in tort, an expanded first-party system would have to be mandatory. Yet how this mandate could be effectively enforced is not at all clear. One

\textsuperscript{120} In 1980, SSDI covered 89.7 million people. See id. at 375.

\textsuperscript{121} For example, in 1983 only 24 million people—slightly more than 20% of the labor force—were protected by private, long-term disability insurance, and only about 36 million people were protected by short-term disability insurance. See Health Insurance Ass'n of Am., supra note 117, at 16.
approach would be to require employers to administer a mandatory system. Another would be to require proof of required minimum coverages upon renewal of driver’s licenses. An individualized enforcement system—on the model of draft registration—could be used for remaining individuals. A third approach would be to encourage insurers to offer in one policy a set of coverages satisfying the purchase requirement and to issue a certificate resembling a W-2 form to be filed with tax returns.

While a number of such enforcement devices might be feasible, the difficulties of trying to assure that over two hundred million people have purchased (or had purchased for them) two or three different kinds of insurance should not be underestimated. For this reason, a mandatory system probably would have to consist of governmentally provided social insurance, rather than privately-marketed insurance protection.\textsuperscript{122} Under such an approach, the desired benefit levels would simply be provided to eligible victims. Payment could be financed either out of general revenues or through contributions on the model of the social security system. When social insurance is mandatory, however, it tends to provide very limited benefit levels; therefore, the problem of the undercompensated victim probably would not be eliminated by the introduction of increased social insurance.

An expanded system of private first-party insurance, on the other hand, need not be automatically mandatory. Torts (including mass torts) cause only a small portion of the death and disability in this country;\textsuperscript{123} to require the purchase of first-party insurance against all death, disability, and health care costs solely to compensate the small portion of these misfortunes that is tortiously caused would be massive overkill. Purchase of first-party coverage might therefore remain entirely voluntary (except for a few existing exceptions such as no-fault automobile insurance), or companies writing medical, hospitalization, or disability coverage might be required to offer customers the option to purchase a package of legislatively prescribed coverage. Because purchasing such coverage

\textsuperscript{122} For a recommendation of a combined social/private insurance approach, see Sugarman, supra note 91, at 648-51; see also P. Schuck, supra note 14, at 280 (recommending more first-party insurance in this situation).

\textsuperscript{123} For example, in 1984, 93\% of all deaths were from natural causes, whereas 2.4\% were caused by non-motor-vehicle accidents. See American Council of Life Ins., supra note 118, at 43.
would be optional, it would not have to be limited to subsistence-level benefits.

Reducing the scope of tort liability by deemphasizing collective responsibility, however, probably would not noticeably increase incentives to purchase first-party coverage, even if insurance companies were strongly encouraged to offer it. If this were indeed the case, then the four gaps in first-party health and disability protection available to compensate accident victims identified earlier would remain. Any of these gaps would be significant, but one gap in first-party coverage would be the most prominent—the absence of widespread, substantial insurance against non-occupationally caused disability. This wage-loss component would thus be the missing link in any effort to use first-party insurance as a substitute for compensation in tort. The nature of the private market in disability insurance is therefore worth examining, because the first-party approach to tort reform must pin its hopes on this market.

An initial explanation for the sparseness of private disability insurance may be informational. Although at any given age the average adult is as likely to suffer a serious disability as to die, he spends about ten times as much each year for life than for disability insurance. Perhaps the prospect of death appears so much more salient and dreadful than the prospect of disability that the insurance markets have reacted accordingly. In any case, a concerted campaign to educate the population about the comparative probabilities of death and disability might create greater demand for disability insurance.

Two other market failures, however, are much more likely to be at the heart of the problem. The first is the problem of adverse selection. All voluntary insurance is afflicted to some extent by the disproportionate tendency of those who are more likely to suffer losses to apply for coverage. Unless the insurer can screen applicants effectively and reject or risk-classify those with above-average expected losses, its risk-pooling efforts will be undermined, and the price of coverage will rise. Yet because information about the probability of suffering an insured loss is more probably in the insured’s exclusive possession in the disability insurance context than in others, disability insurers may find it difficult to risk-clas-

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sify with accuracy. In addition, the fact that private disability insurance has never been widespread has prevented the accumulation of data that might render the risk-classification process more accurate. The market's inability to neutralize adverse selection has thus perpetuated itself.

A second and related market failure is the problem of moral hazard: the tendency of an insured party to exercise less care to minimize losses than he would exercise if he were uninsured. With disability insurance, moral hazard is present both ex ante and ex post. The insured individual is more likely to suffer a loss and more likely to stay disabled than the uninsured. Both forms of moral hazard can be mitigated by limiting the amount of coverage sold to a percentage of the insured's pre-disability income (usually a maximum of about sixty percent) and by coordinating with other sources of wage-loss insurance so that overinsurance is not possible. Nonetheless, the prospect of working is sometimes not as attractive as the prospect of leisure with lower income, and economic conditions may reduce the job prospects of even the marginally able or disabled who would prefer to work. For both reasons, the cost of disability insurance is driven up unless the insurer can accurately assess the validity of both initial and continuing claims.

Yet as the controversy surrounding the SSDI program in the early 1980's illustrated, the very concept of disability is more subjective than are most insured events. Therefore, both fraudulent and innocently invalid claims are more difficult to detect, claims expenses are higher than in other lines of insurance, disputes between claimants and insurers are more frequent, and the cost of coverage is higher than it would be in the absence of these consequences of moral hazard. As a result, private disability insurance—especially when individually purchased—is a comparatively expensive insurance product, and less is purchased than might otherwise be expected.

The problems of adverse selection and moral hazard, then, probably are largely responsible for the weakness of the private disability insurance market. No magic solutions to these problems exist. Perhaps the best approach would simply leave the market to operate as it always has, permitting it to grow as tort liability ceases its own expansion, as demand for disability insurance slowly in-

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125 For a description, see J. Mashaw, Bureaucratic Justice 106-23 (1983).
creases, and as the market itself develops new devices for reducing adverse selection and moral hazard. For those who are unsatisfied by such a laissez-faire stance, however, I can offer a few new directions for the search for solutions to both adverse selection and moral hazard in disability insurance.

The best way to deal with adverse selection, of course, would be to remove the selection decision from the applicant. This could be accomplished either by making individual purchase mandatory or by marketing coverage on a group, rather than an individual, basis. If participation by all group members were automatic, then the adverse selection effect could be largely eliminated. Because about seventy percent of the private disability insurance now sold in this country is group insurance, however, placing greater emphasis on the group approach would not seem to be a promising way to expand the incidence of disability protection. On the other hand, conceivably some effort to encourage the employers who now offer health insurance as a fringe benefit to offer disability insurance along with it—perhaps through special tax incentives to the employer—could have the desired effect.

Similarly, possible solutions to the moral hazard problem should recognize the reasons that the problem is so severe in disability insurance. First, the definition of "disability" inevitably makes eligibility decisions more subjective than in other forms of coverage. This problem could be addressed directly, rather than through the indirect methods traditionally employed. For example, policies could be offered in which "disability" is defined exclusively by reference to a series of designated conditions that would count automatically as "disabling." Because the existence of these conditions could be more objectively verified than disability itself, eligibility could be more easily determined and borderline disputes more easily avoided.

Moreover, although some disabilities might not be covered as a result of this approach, the cost of the more limited form of coverage would be correspondingly reduced and demand might increase. The SSDI experience with a version of this approach, while mixed, has met with some success, and some private insurers already

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126 See supra note 122-23 and accompanying text.
use the method on a nonexclusive, limited basis. Individual insurers, however, probably would have less than optimal incentives to innovate in this way, because other insurers could copy innovations at a relatively low cost compared to those of the innovating company. Either collective or legally mandatory experimentation could therefore be necessary to test the utility of this designated disability approach.

The second reason moral hazard is so severe in disability insurance is that any periodic payment system inevitably creates continuing incentives for the claimant to remain eligible for payment. The monthly payment system generally used by disability insurers is bound to be afflicted in this way. In contrast, the great virtue of the tort system's approach, for all its other disadvantages, is that it avoids ex post moral hazard by paying damages in a lump sum. To capture this virtue, a form of damage scheduling on the model of the lump sum payments made in workers' compensation might help to alleviate some of the moral hazard in disability insurance. By paying lump sums for certain designated disability conditions and at the same time by insuring a lower percentage of lost wages (up to a maximum of forty percent, for example), both the incentive of the insured to remain disabled after payment of the lump sum and the cost of providing continuing coverage when the disability continued could be reduced.

Each of these suggestions tentatively outlines experimental solutions for some of the problems that now limit the scope of the private disability insurance market. The prospect that any of these solutions would immediately increase demand for disability insurance, lower the cost of coverage, or make the market generally more vigorous is unlikely; but just as the tort system is not set in stone, neither is the insurance market. New ways of providing disability insurance that reduce some of the problems the market now faces are long overdue. Similar efforts to fill the other gaps in the first-party market—especially for the portion of the population without health insurance—should also be undertaken. Legislative or regulatory encouragement of experimentation may be required to enlist the creative energies of the insurance industry in this endeavor. Although legal intrusion into the market is a serious venture, such a foray is well worth considering, especially if the new

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129 See K. Abraham, supra note 12, at 78-79.
insurance protection would aid in the attempt to rehabilitate tort law.

IV. CONCLUSION

The dilemma of mass tort reform is that the legal system is presented with a choice among unsatisfactory alternatives. On the one hand, the system may muddle along as it has, slowly constructing ever-more collective liability standards and applying them through the most expensive method of claim resolution—full-scale adjudication. On the other hand, the system can recognize the dangers on its path and return to standards emphasizing individual responsibility. But a return to more traditional rules could limit the availability of compensation to the victims of mass accidents and could forego the attempt to allocate responsibility for much of the damage caused by such accidents.

Until recently, these two alternatives defined the contours of the debate over mass tort reform. But two other alternatives also merit consideration. First, collective responsibility standards could be retained and applied through a mass tort compensation fund or funds. Unfortunately, a fund would have great disadvantages as well as benefits. Given current knowledge, placing effective constraints on a fund's compensation criteria would be difficult; yet, ironically, the same limited knowledge about causation in mass tort litigation is part of what prompts consideration of funds as an alternative to the current system.

A second alternative would return to the traditional tort system but also promote the expansion of first-party insurance to assure adequate compensation of victims. This approach would also pose problems. Mandating the purchase of coverage could prove to be an administrative nightmare; yet making purchase optional might not sufficiently increase the amount of coverage available to potential victims.

Regardless of the alternative or alternatives that are adopted, recognition of the dilemma of mass tort reform should clarify what is at stake in making choices about reform. The principal lesson taught by the dilemma may be that the model of individual responsibility underlying many of the precepts of traditional tort law is losing its influence. What began as a regime of liability for fault, and then developed into a method of affecting behavior by imposing liability without fault, is now evolving toward a system of lia-
bility without either fault or causation. As individual responsibility in the tort system fades away, it is worth wondering whether the remaining advantages of the system could be more effectively preserved by adopting other compensation schemes and simultaneously returning tort law to its earlier state.

The answer depends not only on what has already occurred, but on what the future brings as well. In a sense, therefore, the problem is what to do until the future comes. If the tort system is in the midst of a temporary period of a few decades in which society's technological capacities have outstripped its ability to deal with their consequences, then it will be able to muddle through without radical reform. Perhaps the tort system will have to adopt even more collective responsibility standards and apply them even less efficiently and more expensively than at present. Matters may become worse before they get better, but slowly our knowledge of and capacity to deal with the adverse consequences of powerful technologies will grow, and with that growth the legal system will eventually be able to banish uncertainty and return to the model of individual responsibility it is designed to follow.

On the other hand, the future may not be so benign. We may be at the beginning of a long, unhappy period during which we will be paying for the bargain we have made, and continue to make, in order to reap the benefits of advanced technologies. If this rather Faustian vision is accurate, the paradigmatic problem the legal system will face is the mass tort, and bending the rules of individual responsibility into collective responsibility devices may prove inadequate to the task. The legal problems mass torts pose are proving to be qualitatively different from those of the past, and an effective, long-term solution to those problems simply may not lie in the tort system as we have known it.