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# SOME THOUGHTS ON THE EFFICACY OF A MASS TOXICS ADMINISTRATIVE COMPENSATION SCHEME

ROBERT L. RABIN\*

## INTRODUCTION

Twentieth-century accident law has been marked by a number of legislative attempts to devise no-fault alternatives to the tort system. In each case, these efforts have been triggered by a sense that common-law adjudication was an overly expensive, time-consuming, and poorly adapted process for deciding personal injury claims.<sup>1</sup> The most far-reaching of these initiatives have been workers' compensation and automobile no-fault legislation, both of which addressed the most critical then-existing problem areas of personal injury claims.<sup>2</sup> In recent years, no-fault schemes have been developed for a variety of more highly focused injury situations—ranging from infant victims of medical malpractice to coal miners' disease<sup>3</sup>—underscoring a continuing tension between the traditional tort approach, with its focus on individual responsibility and subjective measurement of harm, and a "categorical" system of activity-related administrative compensation, which would provide universal coverage based on an insurance premise.

In particular, this tension has been vividly manifested in the "mass tort" cases, where hundreds—at times, thousands—of claims have arisen from exposure to hazardous wastes, asbestos, nuclear-test fallout, and a variety of pharmaceutical products.<sup>4</sup> Critics have

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1. See generally Robert L. Rabin, *Some Reflections on the Process of Tort Reform*, 25 SAN DIEGO L. REV. 13 (1988) (arguing that the successful enactment of broad-based, no-fault schemes has also been dependent on a political environment in which sweeping social reform movements were in progress).

2. *Id.* at 15-23.

3. For a discussion of the Coal Miners' Health and Safety Act, see PETER S. BARTH, *THE TRAGEDY OF BLACK LUNG: FEDERAL COMPENSATION FOR OCCUPATIONAL DISEASE* (1987). The Virginia Birth-Related Neurological Injury Act is discussed in Richard A. Epstein, *Market and Regulatory Approaches to Medical Malpractice: The Virginia Obstetrical No-Fault Statute*, 74 VA. L. REV. 1451 (1988) and Jeffrey O'Connell, *Pragmatic Constraints on Market Approaches: A Response to Professor Epstein*, 74 VA. L. REV. 1475 (1988).

4. See generally MARK A. PETERSON & MOLLY SELVIN, *RESOLUTION OF MASS TORTS: TOWARD A FRAMEWORK FOR EVALUATION OF AGGREGATIVE PROCEDURES* (RAND Institute

argued, in essence, that the present tort system, designed to achieve corrective justice goals in simple two-party accidental harm cases, is not well-constituted to adjudicate effectively mass toxics episodes, where litigation involves identifying the sources of long-latent disorders, resolving a vast array of probabilistic causation issues, dealing with enormous numbers of parties widely distributed geographically, and other related complications.<sup>5</sup>

These problems are well-illustrated by two of the most significant mass tort litigation explosions in the past decade, the avalanche of claims resulting from exposure to Agent Orange and asbestos. Both episodes have been the subject of careful study, providing descriptive and empirical data on the disabilities of the tort system.<sup>6</sup>

In the Agent Orange litigation,<sup>7</sup> despite the guidance of an imaginative trial judge who relied on a variety of aggregative techniques to move the case to settlement,<sup>8</sup> the outcome compromised every goal of the tort system: the overall award bore no discernible relationship to the injury claims of the victim class;<sup>9</sup> the claimants,

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for Civil Justice 1988) (evaluating the problematic nature of mass torts and the aggregative procedures adopted to facilitate their resolution).

5. See generally, e.g., PETER SCHUCK, *AGENT ORANGE ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS* (1986); Palma J. Strand, Note, *The Inapplicability of Traditional Tort Analysis to Environmental Risks: The Example of Toxic Waste Pollution Victim Compensation*, 35 STAN. L. REV. 575 (1983).

6. For a discussion of the Agent Orange litigation, see SCHUCK, *supra* note 5. For a discussion of the asbestos litigation, see DEBORAH R. HENSLE ET AL., *ASBESTOS IN THE COURTS: THE CHALLENGE OF MASS TOXIC TORTS* (RAND Institute for Civil Justice 1985); JAMES S. KAKALIK ET AL., *VARIATION IN ASBESTOS LITIGATION COMPENSATION AND EXPENSES* (RAND Institute for Civil Justice 1984) [hereinafter KAKALIK, VARIATION]; JAMES S. KAKALIK ET AL., *COSTS OF ASBESTOS LITIGATION* (RAND Institute for Civil Justice 1983) [hereinafter KAKALIK, COSTS]; Lester Brickman, *The Asbestos Litigation Crisis: Is There a Need for an Administrative Alternative?*, 13 CARDOZO L. REV. 1819 (1992); Deborah R. Hensler, *Fashioning a National Resolution of Asbestos Personal Injury Litigation: A Reply to Professor Brickman*, 13 CARDOZO L. REV. 1967 (1992); Jack B. Weinstein, *A View from the Judiciary*, 13 CARDOZO L. REV. 1957 (1992).

7. The Agent Orange litigation involved American troops who had been exposed to Agent Orange, an herbicide used in the Vietnam War to defoliate jungles and crops to deprive enemy forces of ground cover and food supplies. After the war, thousands of servicemen and their families sued the United States Government and various laboratories and pharmaceutical manufacturers, claiming injuries to the veterans from various dioxins, allegedly toxic components of Agent Orange. There are dozens of reported opinions covering various parts of the litigation. See, e.g., *In re "Agent Orange" Prod. Liab. Litig.*, 611 F. Supp. 1267 (E.D.N.Y. 1985), *aff'd*, 818 F.2d 187 (2d Cir. 1987), *cert. denied sub nom. Lombardi v. Dow Chem. Co.*, 487 U.S. 1234 (1988).

8. See SCHUCK, *supra* note 5, at 111-67, discussing the techniques used by United States District Judge Weinstein of the Eastern District of New York to arrive at a \$180 million settlement.

9. See Robert L. Rabin, *Tort System on Trial: The Burden of Mass Toxics Litigation*, 98 YALE L.J. 813, 817-19 (1989) (reviewing SCHUCK, *supra* note 5).

on the whole, appear to have been strongly alienated by the litigation process;<sup>10</sup> the administrative costs and delay in resolving the controversy were enormous, even by comparison to other categories of tort litigation—which are widely criticized on the same grounds;<sup>11</sup> and the final award cannot be regarded as satisfying any conceivable definition of optimal deterrence.<sup>12</sup> In the asbestos litigation, which has grown dramatically over the past decade and threatens to continue indefinitely, efforts at consolidation have met with only limited success: administrative costs have reached unprecedented levels, consuming two-thirds of every dollar expended by asbestos manufacturers in the mid-1980s before leveling off;<sup>13</sup> intramural disagreements and deadlocks among various manufacturers and insurance interests have erupted intermittently;<sup>14</sup> and similarly-situated injury victims have received vastly disparate compensation.<sup>15</sup>

While the mass latent injury situation—as in the case of asbestos—may represent the most troublesome dimension of this litigation phenomenon, not every instance of catastrophic injury falls within even a broad definition of toxic harm.<sup>16</sup> Correlatively, not every instance of mass tort litigation involves the complex problems of determining causation and allocating responsibility that is endemic to the toxics litigation. Aviation accident litigation, a leading illustration of “traditional” mass tort liability, provides a sharp contrast, from a litigation cost perspective, to the asbestos litigation.<sup>17</sup>

The RAND Institute for Civil Justice’s study of the slightly more than 2000 commercial aviation accident death cases arising between 1970 and 1984 indicated that nearly three-quarters were either con-

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10. *Id.*

11. *Id.* at 820-22.

12. *Id.* at 819-20.

13. KAKALIK, COSTS, *supra* note 6, at viii, 38-40.

14. HENSLER, *supra* note 6, at 20-23.

15. *See* KAKALIK, VARIATION, *supra* note 6.

16. In particular, most sudden catastrophic injuries, such as fires and structural collapses, do not involve toxic harm.

17. The RAND Institute for Civil Justice conducted four studies of aviation accident litigation. *See* EXECUTIVE SUMMARIES OF THE AVIATION ACCIDENT STUDY (RAND Institute for Civil Justice 1988) [hereinafter AVIATION STUDY]. Other recent traditional mass torts include the 1980 Las Vegas MGM Grand Hotel fire that killed 84 people and injured 500, the 1986 Dupont Plaza Hotel fire in Puerto Rico that killed 97 people and prompted damage claims totalling \$1.8 billion, and the 1981 Hyatt Regency Hotel skywalk collapse in Kansas City that killed 114 people. *See* Pamela G. Hollie, *Mysteries of Lost Life and Property Remain in Grand Hotel Ashes*, N.Y. TIMES, Nov. 24, 1980, at A1; Martha Brannigan, *Lawyers in Suit over 1986 Hotel Fire in Puerto Rico Hold Talks on Settlement*, WALL ST. J., Mar. 15, 1989, § 2 at 8; T.R. Reid, *Litigation Loosens the Stiff Upper Lip*, WASH. POST, Feb. 24, 1986, at A1.

solidated in federal court or settled without a judicial filing.<sup>18</sup> Fees for plaintiffs' attorneys, as well as defense costs, averaged far below the norm for tort cases<sup>19</sup> and, overall, almost three-quarters of average expenditures per claim resulted in payments to the claimants.<sup>20</sup>

Thus, the range of process-related complexities that plague mass toxics litigation is virtually non-existent in the aviation accident and other traditional mass tort scenarios. As a consequence, there is no substantial reason for looking beyond the toxic harm area in assessing the case for a mass tort no-fault scheme, putting aside consideration of a New Zealand-type universal compensation plan.<sup>21</sup>

This less-than-admirable track record of the tort system in mass toxics cases indicates the desirability of seriously exploring nontort strategies as an alternative. As a starting point for examining the feasibility of nontort systems, I will discuss three existing or pro-

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18. See AVIATION STUDY, *supra* note 17, at 5, 7 (noting that one-third of the cases are settled without filing a lawsuit, and 40% result in claims in federal court). Clearly, the overall number of cases arising during the period, 2,228, indicates—as do the occasional fire and facility disasters—that the courts are not overwhelmed by numbers in these cases, as they have been in the toxic mass tort episodes.

19. Plaintiffs' litigation costs were between 15% and 25%; defendants' related costs averaged about 14% of compensation paid per death. AVIATION STUDY, *supra* note 17, at 11-14. For comparable overall figures on personal injury torts, see generally JAMES S. KAKALIK & NICHOLAS M. PACE, COSTS AND COMPENSATION PAID IN TORT LITIGATION (RAND Institute for Civil Justice 1986) (providing extensive statistical analysis of costs in tort litigation).

It should be noted, however, that there is very frequently no substantial doubt as to liability in airline crash cases; as a consequence, the low litigation cost figures may simply reflect a correspondingly reduced work effort required in order to secure a settlement.

20. AVIATION STUDY, *supra* note 17, at 3. On the other side of the ledger, the aviation cases demonstrated the same skewed pattern of recoveries found for decades in automobile accident compensation studies, namely, a continuum on which victims suffering minor economic loss tend to get overcompensated while those incurring major economic loss are systematically undercompensated. There is reason to believe, however, that this phenomenon is diminishing in the airline cases and that it may, in any event, have been substantially an artifact of the RAND methodology in imputing values to categories of lost services. Telephone Interview with James S. Kakalik, RAND Institute for Civil Justice (Aug. 16, 1989).

21. While a comprehensive no-fault scheme along the lines of New Zealand's is almost certainly politically infeasible in the United States at this time, focused no-fault in other claims areas warrants exploration. See, e.g., PAUL C. WEILER, MEDICAL MALPRACTICE ON TRIAL (1991) (discussing no-fault medical liability); Paul C. Weiler, *The Case for No-Fault Medical Liability*, 52 MD. L. REV. 908 (1993). For recent critical treatments of the New Zealand system, see Richard Mahoney, *New Zealand's Accident Compensation Scheme: A Reassessment*, 40 AM. J. COMP. L. 159 (1992); Richard S. Miller, *An Analysis and Critique of the 1992 Changes to New Zealand's Accident Compensation Scheme*, 52 MD. L. REV. 1070 (1993); Richard S. Miller, *The Future of New Zealand's Accident Compensation Scheme*, 11 U. HAW. L. REV. 1 (1989) [hereinafter Miller, *The Future*].

posed institutional schemes: the statutory tort remedy for nuclear accidents, the legislative no-fault scheme for vaccine injuries, and two study-group proposals for toxics-related harms. Against the backdrop of the promising characteristics and potential weaknesses of these schemes, I will then proceed to describe the optimal features of a toxics no-fault model and to assess the case for its adoption.

## I. TOXICS COMPENSATION SCHEMES: EXPLORATORY MODELS

### A. *Tort/No-Fault Hybrid: The Price-Anderson Act*

The Price-Anderson Act<sup>22</sup> signaled one of the first legislative responses to perceived deficiencies of the common-law tort model in dealing with potential mass tort liability. Congress passed the Act in 1957 with the express intent of encouraging investment in nuclear energy research and operations by a private sector daunted by the prospect of multimillion dollar claims and a constrained insurance market.<sup>23</sup> Overall, the Act imposes a set of statutory constraints on possible catastrophic tort liability in the event of a nuclear accident, and has essentially established a hybrid system that combines components of both tort and no-fault compensation models.

The system is financed through a combination of private insurance and mandatory contributions to a common fund—contributions that, in the aggregate, set the limit on total liability for any nuclear incident.<sup>24</sup> In accordance with recent amendments to the Act, each nuclear licensee is required to purchase \$160 million of private liability insurance.<sup>25</sup> In addition, each licensee must contribute \$63 million to a common compensation fund in the event of a nuclear accident at any plant.<sup>26</sup> The liability limit of the fund, with more than 100 plants in operation, is approximately \$7 billion at present.<sup>27</sup>

The Price-Anderson Act funding scheme closely resembles a no-fault model to the extent that it relies substantially on a pooling mechanism to compensate aggrieved parties, thus de-emphasizing the importance of individual responsibility. This pooling mechanism, in conjunction with the lack of an experience- or risk-rating

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22. 42 U.S.C. § 2210 (1988 & Supp. 1992).

23. *Id.* § 2012 (detailing the congressional findings).

24. *Id.* §§ 2210(b) & (e).

25. *Id.*; see also *The Nation*, L.A. TIMES, Aug. 23, 1988, at 2 [hereinafter *The Nation*].

26. 42 U.S.C. § 2210(b).

27. See *The Nation*, *supra* note 25, at 2.

provision in the statute, blunts the incentives to investment in optimal safety by individual firms under the Price-Anderson Act. At the same time, however, the nontort disincentives to sub-optimal safety, in particular the devastating disability and damage to the plant that would result from a serious nuclear accident, are very powerful.

In the event of an "extraordinary nuclear occurrence,"<sup>28</sup> all claims are consolidated in federal court in the district where the incident occurred.<sup>29</sup> The Act creates strict liability in tort for licensees involved in nuclear incidents and abrogates the defense of contributory negligence.<sup>30</sup> By consolidating all claims into one jurisdiction and applying a single body of law, the Price-Anderson Act incorporates certain features of the "public-law" tort model.<sup>31</sup>

With respect to establishing liability, however, the Price-Anderson Act maintains some of the distinctive flavor of traditional tort law. The claims process retains a two-party character, with each individual claimant bearing the burden of establishing causation and particularized proof of economic loss and intangible harm.<sup>32</sup> In this sense, the Price-Anderson approach, in practice, might prove to be almost as inefficient as the standard common-law tort approach.

*Allen v. United States*,<sup>33</sup> a case filed under the Federal Tort Claims Act by alleged victims of the Nevada atomic bomb tests of the 1950s, provides a tort analogue that illustrates how causation and damage issues under Price-Anderson might be resolved in practice. After a three-month trial, the district court judge in *Allen* carefully distinguished among the variety of claims on the basis of medical literature on the etiology of various cancers, observational reports on the Nevada fall-out, and testimony about victim exposure.<sup>34</sup> Based on this evidence the judge allowed some claims, but denied others.<sup>35</sup>

Though the judge appears to have mastered the relevant scientific literature, *Allen* engenders deep pessimism about the efficacy of

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28. "Extraordinary nuclear occurrence" is defined as "any event causing a discharge or dispersal of source, special nuclear, or byproduct material . . . in amounts offsite, or causing radiation levels offsite." 42 U.S.C. § 2014(j).

29. *Id.* § 2210(n)(2).

30. *Id.* § 2210(n)(1).

31. For an articulation of the "public law" tort model, see David Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 851 (1984).

32. See 10 C.F.R. § 140.81 (1993).

33. 588 F. Supp. 247 (D. Utah 1984), *rev'd*, 816 F.2d 1417 (10th Cir. 1987), *cert. denied*, 484 U.S. 1004 (1988).

34. See *id.*

35. *Id.* at 247-48.

a Price-Anderson approach. The case took five years to dispose of at the trial court level, and, even if the case had been affirmed,<sup>36</sup> it still would have left many types of claims open to dispute and further litigation.<sup>37</sup> The underlying problem in *Allen* arose from the retention of an individualized approach to damages and causation, which ensured a prolonged and costly process of decision. Similar problems would be virtually certain to arise in adjudication under Price-Anderson.<sup>38</sup>

Optimally, successful plaintiffs would collect from the fund the full extent of their proven economic and non-economic damages. However, Price-Anderson empowers the court to reduce the size of present claims proportionately when it appears that the ceiling on damages will be exceeded.<sup>39</sup> In these situations, the court is to establish a delayed injury fund, setting aside part of the pooled contributions and insurance for claims arising within twenty years of the incident.<sup>40</sup>

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36. The case was, in fact, reversed on the basis of the discretionary act exemption of the Federal Tort Claims Act. See *Allen v. United States*, 816 F.2d 1417 (10th Cir. 1987), cert. denied, 484 U.S. 1004 (1988).

37. Only 24 of 1,192 claims were actually tried. The 24 plaintiffs were chosen because their claims were thought representative of the plaintiffs as a whole. This selection of "typical" cases was made in order to provide a legal and factual context in which to try the remaining claims; these cases would not, however, have been dispositive of the issues in the remaining claims. *Allen*, 588 F. Supp. at 258.

38. In recognition of these shortcomings, a recent comprehensive review of Price-Anderson recommends generic determinations of causation and scheduled treatment of nonpecuniary loss as elements in a package of "administrative features designed to speed the resolution of cases." See REPORT TO THE CONGRESS FROM PRESIDENTIAL COMMISSION ON CATASTROPHIC NUCLEAR ACCIDENTS 5-10 (1990).

39. 42 U.S.C. § 2210(o).

40. *Id.* In the mid-1970s, a federal no-fault scheme for commercial aviation accident victims was proposed, which, according to its author, was modeled on Price-Anderson. See William F. Kennedy, *Accidents in Commercial Air Transportation — A Proposed Reform of the Liability and Compensation System*, 41 J. AIR L. & COM. 247 (1975). Like Price-Anderson, the aviation scheme would establish activity-related liability by eliminating the fault inquiry—and, indeed, would establish a very expansive definition of causal responsibility, since the carrier would also be liable for damage resulting from sabotage. *Id.* at 250-51. There would also be a governmental indemnity provision for liability in excess of privately available insurance—a key provision, now superseded, of the Price-Anderson approach. *Id.* at 249-50. Finally, there would be consolidation of all cases in the federal court where the accident occurred, as under the nuclear incident legislation. *Id.* at 252.

But there are some critical differences in the approach. Kennedy would have federal indemnification financed from a surcharge on airline tickets, rather than the general revenue strategy adopted in the original Price-Anderson scheme. *Id.* Moreover, there is no provision for pooling of liability among the carriers above the insurance limits; rather, the government fund is an exclusive and unlimited source of indemnification. *Id.* at 249-50. Also, the aviation plan eliminates pain and suffering liability except in cases of "permanent disfigurement or disability," which presumably would be fairly common



*B. Narrowly Focused No-Fault: The National Childhood Vaccine Injury Act of 1986*

The National Childhood Vaccine Injury Act of 1986<sup>41</sup> (the Vaccine Act) is, in essence, a narrowly focused no-fault compensation package affording relief to a designated class of product users—namely, children injured by exposure to certain government-mandated vaccines. Congress passed the Act in response to the concerns of the vaccine manufacturers, who had threatened to withdraw from the market because of anxieties about the possibility of crushing liability resulting from the infrequent but unavoidable injuries from exposure to vaccines.<sup>42</sup> Like the Price-Anderson Act, the Vaccine Act created an alternative to common-law tort liability to induce the private sector to make available products deemed essential to the public interest.

The compensation fund is financed by an excise tax on each dose of vaccine disbursed.<sup>43</sup> Because most vaccine manufacturers enjoy a near-monopoly position, a rise in the excise tax to pay an increased number of claims would probably not affect any manufacturer's market share. A limited measure of nontort deterrence pressure is probably assured, however, by the political repercussions that might well accompany any significant rise in the price of vaccines.

The Act establishes a two-tier system under which alleged victims first proceed under a no-fault approach, but retain the secondary option of pursuing a tort claim.<sup>44</sup> Plaintiffs initially file claims in federal court, where a special master is appointed to gather evidence and determine the award.<sup>45</sup> The claimant must establish injury from a vaccine listed in the Vaccine Injury Table, demonstrate that the malady is on the list provided in the table, and prove that the adverse reaction occurred within an exposure period designated

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among survivors—although, on the other hand, survival itself is quite uncommon. *Id.* at 252.

The proposal was never adopted. One can speculate that the earlier-discussed capacity of the tort system to deal in a reasonably effective fashion with these "traditional" mass tort cases explains the relatively limited political appeal of the initiative.

41. 42 U.S.C. §§ 300aa-10 to 300aa-33 (1988 & Supp. II 1990).

42. *See, e.g.*, Marlene Cemons, *Vaccine Injury Compensation Plan Urged to Maintain Production Despite Lawsuits*, L.A. TIMES, July 30, 1985, at 4.

43. *See, e.g.*, Elisabeth Rosenthal, *Claims and Counterclaims on Vaccine Costs Generate Heat but Little Light*, N.Y. TIMES, Mar. 15, 1993, at A16.

44. *See* 42 U.S.C. §§ 300aa-11, 300aa-21.

45. *Id.* § 300aa-11(a).

in the table.<sup>46</sup> Claimants establishing these conditions create a nearly irrefutable presumption of liability. By attempting to eliminate contentious issues of causation, the Act is designed to settle claims in a more efficient manner than would the Price-Anderson Act.

Similarly, the Vaccine Act provides a straightforward means of measuring damages. The statute covers unlimited actual medical expenses, as well as costs of rehabilitation.<sup>47</sup> In addition, it provides compensation for lost earning power based on the average earnings of workers in the nonfarm sector of the economy, determined annually on a prospective basis.<sup>48</sup> The only indeterminate measure of damages is for pain and suffering, which may be awarded by the special master to a limit of \$250,000.<sup>49</sup> Thus, the Act strikes a balance between scheduled and individualized compensation, and, with the exception of retaining a scaled-down discretionary decision on pain and suffering, assesses damages in a simple and administratively efficient manner.

The claimant is entitled to reject the special master's award and seek tort relief instead, but a number of disincentives are built in to discourage this option. First, the Act adopts the principle of the *Restatement (Second) of Torts* that allows an appropriate warning to provide a good defense against liability.<sup>50</sup> Additionally, the Act adopts the "learned intermediary" doctrine, which requires the manufacturers to provide adequate notice only to the party *administering* the vaccination.<sup>51</sup> Finally, the manufacturer is protected against punitive damage awards if it is in compliance with the federal Food, Drug, and Cosmetic Act.<sup>52</sup>

In the final analysis, it must be emphasized that the compensation problem addressed by the vaccine statute is rather narrow in scope. A relatively predictable, limited number of cases arise annually, and filed claims most often involve a single injured party alleging damages against an identifiable manufacturer after a generally short latency period. The scientific information linking adverse reactions with a limited number of identified diseases is reliable in most situations. Thus, establishing liability under the Vaccine In-

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46. *Id.* § 300aa-11(c).

47. *Id.* § 300aa-15(a).

48. *Id.*

49. *Id.*

50. *Id.* § 300aa-22(b). See RESTATEMENT (SECOND) OF TORTS § 402 cmt. k (1977).

51. 42 U.S.C. § 300aa-22(c).

52. *Id.* § 300aa-15(d), 300aa-23(d).

jury Table is unproblematic in many cases.<sup>53</sup> Consequently, the relevance of the vaccine statute to troublesome and complicated environmental or drug cases, with their mass tort, long-latency, identification, and causation problems, is far from clear.

C. *Expansive No-Fault for Toxic Harms: Superfund Section 301(e)  
Study Group Report and Environmental Law Institute  
Model Statute*

The Superfund Section 301(e) Study Group Report<sup>54</sup> and the ELI Model Statute<sup>55</sup> both propose no-fault compensation schemes for victims of toxic-related harms. Like the vaccine statute, both allow claimants the opportunity to pursue tort remedies if they are dissatisfied with the no-fault determinations. Unlike the Price-Anderson Act or the vaccine statute, however, neither proposal has been legislatively adopted. Because the Superfund and ELI proposals are relatively similar in scope, they will be considered together.

The Superfund proposal was developed as a byproduct of the Superfund legislation of 1980. As such, the scope of the proposal is limited to compensating harm that arises from exposure to a hazardous waste—defined by reference to a Toxic Substance Document prepared by a designated agency—that was released from a site qualified for cleanup under the Act.<sup>56</sup> The ELI proposal is considerably broader, extending coverage to harms arising from exposure to a list of “hazardous chemical substances” that includes toxics presently designated under federal statutory schemes or subsequently listed under a petitioning process implemented by the fund adminis-

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53. Recent accounts indicate, however, that claims resolution under the statute may not be as straightforward as was initially anticipated. Some claimants are filing lengthy appeals to rejected claims, and scientific study panels are calling into question the linkage between the vaccine and many adverse effects. A considerable backlog of unresolved cases and a shortfall in funding has also plagued the system—although the latter problems seem limited to pre-fund cases, which are earmarked for compensation out of general revenues, rather than the fund. See Laura Mazzuca, *Shot Through with Problems; a Partial Success, Vaccine Injury Fund Faces Case Logjam, Funding Shortfalls*, BUS. INS., Aug. 24, 1992, at 1; Warren E. Leary, *Panel Discounts Many Adverse Effects Tied to Childhood Vaccines*, N.Y. TIMES, July 5, 1991, at 10A.

54. REPORT TO CONGRESS IN COMPLIANCE WITH SECTION 301(E) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980, 97TH CONG., 2D SESS., INJURIES AND DAMAGES FROM HAZARDOUS WASTES—ANALYSIS AND IMPROVEMENT OF LEGAL REMEDIES (Comm. Print 1982) [hereinafter SUPERFUND REPORT].

55. See Jeffrey Trauberman, *Statutory Reform of “Toxic Torts”*: *Relieving Legal, Scientific, and Economic Burdens on the Chemical Victim*, 7 HARV. ENVTL. L. REV. 177, 250-96 (1983) (appending, at the end of the article, the text of the Environmental Law Institute’s Model Statute) [hereinafter ELI MODEL STATUTE].

56. SUPERFUND REPORT, *supra* note 54, at 191-92.

trator.<sup>57</sup> Consequently, the ELI proposal would cover harm resulting from exposure to a far wider array of actual or potential toxic agents, including asbestos, Agent Orange, and drugs.

The Superfund proposal would be financed in a manner analogous to the current Superfund design, relying on a tax levied on the production of toxic chemicals, crude oil and the disposal of hazardous waste.<sup>58</sup> The ELI proposal would impose a tax on petroleum and chemical production as well, but would also phase in an annual hazard fee that would reflect the risk-generating characteristics of the substances produced.<sup>59</sup> To the extent that this variable fee is scientifically feasible, the ELI financing scheme is superior to the Superfund scheme from the perspective of creating appropriate incentives to safety.

The adjudication of claims under the two proposals is very similar. The initial no-fault determination under the Superfund scheme addresses causation by a statutory rebuttable presumption, triggered when the claimant establishes that (1) the alleged source of the toxin was engaged at the time of exposure in the generation, transportation or disposal of hazardous waste, (2) the claimant was exposed to the hazardous waste, and (3) the injury suffered by the claimant was of the kind known to result from such exposure.<sup>60</sup> The fund would use a Toxic Substance Document, analogous to the Vaccine Injury Table, to assess the claimant's right to recovery.<sup>61</sup>

Damages awarded under the Superfund proposal would include all medical expenses and two-thirds of lost income up to a high ceiling.<sup>62</sup> Depending on the earning power of an individual claimant, the Superfund proposal would be either more or less generous than the vaccine statute in compensating for lost wages. The Superfund scheme would not, however, allow any recovery for pain and suffering.<sup>63</sup>

If a claimant were dissatisfied with the no-fault award, she would be allowed to initiate a tort claim.<sup>64</sup> Like the vaccine statute, the Superfund scheme creates disincentives to make this option unattractive. Among other provisions, if the tort award is less than twenty-five percent above the no-fault award, the plaintiff must pay

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57. ELI MODEL STATUTE, *supra* note 55, at 254.

58. SUPERFUND REPORT, *supra* note 54, at 230.

59. ELI MODEL STATUTE, *supra* note 55, at 272-78.

60. SUPERFUND REPORT, *supra* note 54, at 198-99.

61. *Id.* at 199-202.

62. *Id.* at 219.

63. *Id.* at 220.

64. *Id.* at 181-83.

court costs and the expert witness fees of the defendant.<sup>65</sup> In addition, the fund must be reimbursed for all payments disbursed under the administrative compensation scheme.<sup>66</sup> The ELI proposal creates a far more substantial disincentive to sue by requiring that a claimant return any benefit payments to the fund *prior* to initiating a tort suit.<sup>67</sup>

Creating such disincentives, however, raises an important equity concern. To ensure fairness to potential claimants, both proposals would need careful scrutiny to ensure that statutory award levels are sufficiently generous to avoid the possibility that claimants would be coerced into accepting a dubious bargain under the no-fault scheme.

Several other problematic aspects of the ELI proposal deserve attention. It is unclear whether the ELI version of the Toxic Substance Document would provide a scientifically sound, yet efficient basis for resolving the vexing problems of causation. The ELI proposal also leaves unresolved the method of shifting claims initiated in the tort system to the no-fault scheme, once the hazardous nature of a product is well documented. Finally, there is a threshold question whether the tort system has been an indispensable institutional mechanism—through pretrial discovery and the litigation process—for identifying toxic health hazards in the first instance.<sup>68</sup>

#### D. *Emerging Themes*

A system designed to achieve corrective justice goals in two-party accidental harm cases simply cannot be accommodated effectively to the demands of mass tort cases where the litigation involves identifying the source(s) of long-latent toxic disorders.<sup>69</sup> Before the traditional tort system is abandoned, however, there must be substantial grounds to ensure confidence in an alternative institutional mechanism that would serve as its replacement. This survey of toxic no-fault approaches has addressed the problem in a preliminary way by examining three alternative institutional schemes: the statutory tort remedy for nuclear accidents, the legislative no-fault scheme for vaccine injuries, and two study-group proposals for toxics-related

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65. *Id.*

66. *Id.*

67. ELI MODEL STATUTE, *supra* note 55, at 286.

68. *See, e.g.*, PAUL BRODEUR, OUTRAGEOUS MISCONDUCT: THE ASBESTOS INDUSTRY ON TRIAL 97-131 (1985) (describing the use of discovery to assemble medical evidence on the dangers of exposure to asbestos).

69. *See supra* notes 5-15 and accompanying text.

harms. Not surprisingly, the analysis suggests that each approach has some significant limitations and weaknesses, in addition to certain promising features, as a conceptual model for addressing more generally the critical problem of mass toxic harm.

The ELI Model Statute offers the most comprehensive definition of a designated compensable event. However, the Model Statute relies on a dynamic process of identifying toxic sources and establishing exposure-reaction relationships that may be excessively optimistic about advances in scientific understanding, let alone prospects for rational administration.

Even if the scope of no-fault coverage can be defined with reasonable precision, there are compelling reasons to think that the tort option will need to be retained in part. Once again, the models serve as a useful mechanism for approaching the problem: the vaccine scheme, the Superfund Study Group proposal, and the ELI Model Statute each adopt distinctive approaches to the question of the extent to which the tort system should be retained and whether a binding election between alternatives should be required.

Whatever no-fault trigger is devised, there is a correlative set of questions about the design of the residual tort system. Here, the Price-Anderson Act may point in a fruitful direction. Perhaps the novel funding approach, the singular limitations on defenses, and the restraints on individualized damage recoveries ought to be features of the retained tort option, since these strategies are more consonant with a dominant commitment to no-fault than is the traditional tort remedy.<sup>70</sup> Conversely, if the no-fault model is predominantly aimed at diminishing the caseload by disposing of less-compelling claims, a more robust residual tort remedy for serious cases might be appropriate.

The manner of financing the no-fault scheme turns on the question of the appropriate means of optimizing product safety. Once again, the models differ sharply in their commitment to establishing accident-prevention incentives. Arguably, the deterrence function is best left to a complementary regulatory system; the Superfund Study Group proposal and Price-Anderson tacitly adopt this philosophy. By contrast, the Vaccine Act and ELI approach contain explicit design features aimed at encouraging optimal safety. The question of which approach seems most sensible depends in part on the scope of the designated compensable event; a tightly-circumscribed, sharply-defined definition of compensable claims—and,

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70. See *supra* notes 22-40 and accompanying text.

concomitantly, of responsible enterprises—is more amenable to experience-based financing than is a broad and indeterminate all-inclusive category of product and environmental harms.

In sum, this exploration of no-fault models has identified a number of critical issues: designating a compensable event, retaining or discarding the tort system, and allocating funding responsibility among contributing sources. There are no clear-cut resolutions of these issues, but each must be addressed if the prospect of an administrative compensation scheme is to be taken seriously.

## II. ELEMENTS OF A MASS TOXIC HARM ADMINISTRATIVE COMPENSATION SCHEME

### A. *Designating a Compensable Event*

The starting point in any discussion of the components of an administrative compensation scheme is the boundaries question—the determination of which claims fall within the system and which remain under the domain of tort. This issue is far more complicated than the comparable inquiry in a traditional tort case as to whether an actionable claim has been made out. Apart from common-law no-duty limitations, a claim for recovery in a traditional tort case need not be shaped to fit within a carefully circumscribed definition of harm. By contrast, the jurisdiction of an administrative compensation scheme is premised on the existence of an activity-related nexus between the claimant's harm and the fund's obligation. A second-stage inquiry into specific causation takes place only after this jurisdictional requirement has been met—a requirement that will be referred to as the need to establish a designated compensable event (DCE).

The limits of the fund's jurisdiction must, of course, be responsive to the purposes that the administrative compensation scheme are intended to serve. This threshold definitional issue would be entirely unproblematic, for example, if the tort system were regarded as inadequate for adjudicating every act or activity that generated one hundred or more claims of personal harm. As suggested earlier, however, there is no substantial argument for defining the jurisdiction of a compensation scheme solely in quantifiable terms rather than adopting a universal no-fault scheme as in New Zealand.<sup>71</sup> To put it another way, neither the single-event mass tort

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71. See *supra* note 21 and accompanying text.

injury (the airline crash, hotel fire, or structural collapse) nor the "serial" aggregative injury scenario (for example, a large number of discrete personal injuries resulting over a relatively lengthy period from a faulty brake design) creates either singular process difficulties for the tort system or distinctive fairness and/or efficiency claims for no-fault reparation. Instead, as discussed above, it is the conjunction of a high volume of claims and singular difficulties in resolving causation questions that has made the toxic tort cases a prime candidate for institutional reform through adoption of a "selective" administrative compensation scheme.<sup>72</sup>

As a consequence, there is a threshold question whether a no-fault toxics scheme should be highly focused (as would be true of an asbestos victims' act), middle-range in focus (as in the Superfund hazardous waste proposal), or broad in coverage (as would be the case if all foreseeable high-volume toxic torts were the target). This question, at least, can be fairly definitively answered.

Consider first a highly focused approach. At present, there is no discernible single product, or family of products, that possesses the singular combination of characteristics that weighed in favor of (partial) tort replacement in the case of vaccines—specifically, high social utility, involuntary government-mandated exposure, and seriously threatened sources of supply. Similarly, if present catastrophic occurrences—like asbestos—are put to one side, there are no clear *ex ante* indicia of the next specific product that will overwhelm the system in a comparable manner.

For rather different reasons, there is only a weak argument for a middle-range definition of toxic harm. The Superfund Study Group proposal, which defined the scope of its compensation plan in middle-range terms (harm arising out of exposure to hazardous waste sites),<sup>73</sup> was implementing a legislatively circumscribed mandate that need not constrain an independent observer. In fact, despite the notoriety of Love Canal, Times Beach, and a handful of other site-related clusters of damage claims,<sup>74</sup> there are as yet no instances

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72. This is not to suggest that *selective* extensions of no-fault would be justified only where accidental harm is characterized by numerosity of claims and long latency. See 1 AMERICAN LAW INSTITUTE, REPORTERS' STUDY, ENTERPRISE RESPONSIBILITY FOR PERSONAL INJURY 335-47 (1991) [hereinafter ALI REPORT]; 2 ALI REPORT, *supra*, at 285-300 (discussing arguments that the tort system is a problematic mechanism for resolving accident claims in the industrial accident and medical malpractice areas).

73. See *supra* text accompanying note 56.

74. In the late 1970s, the discovery of seeping chemicals forced the evacuation of hundreds of people from their homes in Love Canal, New York. In 1982, high concentrations of dioxin prompted the evacuation of all 2240 residents of Times Beach, Mis-



in which a mass tort case arising out of a hazardous waste site has seriously overwhelmed the courts or clearly discriminated against a large class of injury victims.<sup>75</sup>

While the past is not necessarily a guide to the future, certain key aspects of hazardous waste harm suggest that, at most, these claims will create peripheral process and compensation-related difficulties in the future. Most importantly, the mass tort dimension of a hazardous waste case is generally geographically limited. As such, the litigation and settlement process is relatively free of the logistical difficulties arising when exposure or ingestion occurs on a nationwide basis, as in the asbestos and DES litigation. Thus, the prospect of multidistrict litigation and choice-of-law issues, far-flung networks of attorneys, and an extraordinary number of personal injury claims is diminished.

This is not to suggest that hazardous waste claims should be outside the scope of an administrative compensation scheme—in a realistic scenario, numerosity would surely be satisfied, long latency problems would be present, and background risk (as well as synergistic effects) would pose serious causation issues. Rather, the point is that hazardous waste-related harm seems an inappropriately narrow basis for defining the outer limits of a toxics no-fault scheme.<sup>76</sup>

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souri. See Keith Schneider, *Experts Say Environmental Policy Lacks Focus, Wastes Billions*, DALLAS MORNING NEWS, Mar. 21, 1993, at 8A.

75. See 2 ALI REPORT, *supra* note 72, at 353-58.

76. Another "middle-range" focus, in addition to hazardous wastes, would be pharmaceutical harms. A drug no-fault scheme exhibits some of the same difficulties as a hazardous waste scheme, however, and generates problems of its own. A drug no-fault scheme would likely raise serious political objections. It is interesting to note that the most vociferous critics of tort liability for drug-related injuries have proposed regulatory preemption of any victim compensation (under appropriate circumstances), rather than demonstrating enthusiasm for no-fault recovery. See, e.g., PETER W. HUBER, *LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES* 210-15 (1988); Note, *A Question of Competence: The Judicial Role in the Regulation of Pharmaceuticals*, 103 HARV. L. REV. 773, 785-93 (1990).

A pharmaceutical no-fault scheme could be viewed as excessively narrow in its application; many of the most vexing mass tort cases—Agent Orange, asbestos, and even, perhaps, Dalkon Shield—would fall outside the purview of the scheme. The core problem is that a drug-related plan would be limited, in essence, to harm from ingestion rather than exposure, and many of the serious cases involving causal lags, indeterminate harm, and mass victims fall into the exposure category.

At the same time, such a scheme could be viewed, along another dimension, as too broad in coverage. By sweeping in *all* drug cases, the plan would be applicable to a substantial volume of claims that would be largely indistinguishable from ordinary, defective-product litigation. To put it simply, most drug cases involve immediate side-effects to a relatively limited number of victims and raise no intractable causation issues. See generally Richard A. Merrill, *Compensation for Prescription Drug Injuries*, 59 VA. L. REV. 1 (1973) (describing the reasons that prescription drugs present hazards and evaluating

The data on mass tort litigation claims to the present date underscore the last point, and effect a transition to considerations of a broad-based DCE. A RAND Institute for Civil Justice study suggests that, as of mid-1988, the three leading sources of mass tort litigation were the Dalkon Shield (325,000 claims), Agent Orange (250,000 claims) and asbestos (more than 87,000 claims).<sup>77</sup> Moreover, among the twelve leading sources of claims were four pharmaceutical products (MER/29, DES, Dalkon Shield, and Bendectin) and seven others that would not fit within the scope of a "hazardous waste" limitation on jurisdiction, no matter how broadly defined.<sup>78</sup> Putting aside mass accidents such as the hotel fire cases, then, the appropriate scope of an administrative compensation scheme appears to be linked to a broad definition of toxic harm.<sup>79</sup>

How might such a definition be framed? The three critical elements that need to be established in a toxics claims case are: (1) a chemical substance that generates a substantial risk of harm, (2) harm of the designated kind, and (3) exposure to a source of the named substance. The standard approach, represented by both the ELI and Superfund proposals, has been to create a rebuttable presumption of liability once these elements have been established. It seems likely that this presumption would, in applicable cases, be very difficult to overcome. On the other hand, it is anything but apparent that such a presumption would be available in a wide variety of toxic harm cases—indeed, this is the key question that goes to the core of the DCE issue.

Consider, initially, the question of which chemical (toxic) substances would fall within the compensation plan. Under the least problematic no-fault scheme, the Vaccine Act, the chemical substances that generate the designated harms are listed in the statute itself. Only in the infrequent case of a "signature disease," how-

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the legal issues in recovering for the harms suffered). Moreover, an important subset of cases raise warning issues (user responsibility), third-party intermediary difficulties, or synergistic effects questions (multiple drug use) that seriously undermine the prospects for equitable implementation of a no-fault approach. These difficulties raise broader fairness and political issues when establishing a funding allocation mechanism for a drug no-fault plan. For all of these reasons, there is serious reason to doubt the efficacy and feasibility of a focused pharmaceutical no-fault scheme.

77. See PETERSON & SELVIN, *supra* note 4, at 6.

78. *Id.* The single exception is a release of DDT by a pesticide manufacturer in Northern Alabama. In addition, three of the other high volume claims cases arose out of "traditional" mass tort litigation: the MGM Grand and Dupont Plaza fires, and the Hyatt skywalk collapse cases. See *supra* note 17.

79. The reasons for putting aside traditional mass torts are discussed above. See *supra* text accompanying notes 17-20.

ever, will such an approach be workable. Under the broader conception presently being considered, the statutory designation would make reference to a broad definition of "toxic harm," and a regulatory mechanism would be established to give specific meaning to the provision.

The Superfund and ELI approaches are suggestive, on this score. In order to capitalize on existing scientific information and expertise, the no-fault scheme could list presently designated substances for which some version of a toxic substance document has been prepared by a federal or state agency. In addition, a mechanism is required to provide flexibility in the system—to assure that the scheme has a dynamic character that is sensitive to new scientific findings about the toxicity of chemical substances. The most suitable strategy would be a petitioning process that offered interested parties an opportunity to submit data on toxic risks associated with unlisted substances to a science panel and, indeed, encouraged the panel itself to initiate the process of listing new substances when appropriate.<sup>80</sup>

Even those steps would not suffice, however. Critical information about the toxic risks of a product or substance in some cases is initially brought to public attention through the litigation process itself, as in the Dalkon Shield and asbestos litigation. This is not to suggest that product manufacturers necessarily lack information about the magnitude of risks associated with their products prior to the onset of mass tort litigation, but rather to recognize that, in the real world, governmental sources—including an administrative compensation board staffed with science experts—simply would not have access to this information before claims of toxic harm began to surface in the tort system.

The logical solution, which has not been addressed in earlier proposed model acts, is to establish a "switching mechanism" that channels burgeoning judicial claims into the administrative compensation system prior to the resolution of numerous claims (in court or through pretrial settlement) and the resultant incurrence of enor-

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80. See generally Troyen A. Brennan, *Helping Courts with Toxic Torts: Some Proposals Regarding Alternative Methods for Presenting and Assessing Scientific Evidence in Common Law Courts*, 51 U. PITT. L. REV. 1 (1989) (detailing the roles of a science panel in toxics litigation); Troyen A. Brennan, *Causal Chains and Statistical Links: The Role of Scientific Uncertainty in Hazardous-Substance Litigation*, 73 CORNELL L. REV. 469 (1988) (proposing establishment of a science panel to evaluate causation issues). But see Michael D. Green, *Expert Witnesses and Sufficiency of Evidence in Toxic Substances Litigation: The Legacy of Agent Orange and Bendectin Litigation*, 86 NW. U.L. REV. 643, 696 (1992) (identifying weaknesses of a science panel approach to causation issues).

mous litigation costs. A "switching mechanism" would raise both a fairness issue—treating like claims similarly, rather than having early cases resolved in the judicial forum and later ones before the compensation board—and an administrative cost concern. This early warning system, an essential complement to the petitioning process, could be implemented through a special judicial panel—along the lines of the multidistrict litigation panel—that would be designated to entertain motions for transfer of claims to the administrative compensation scheme under standards aimed at identifying incipient mass toxics cases.

This switching mechanism would need to be worked out in some detail. Unless a provision for court-awarded attorneys' fees to the initiators of the transferred cases were adopted, there would be little incentive for lawyers to handle toxic cases that prospectively would be routed into the compensation scheme. Similarly, once transfer had occurred, special treatment would be required in this category of cases as far as the creation of rebuttable presumptions is concerned. While it would be possible to employ the science panel at the motion-to-transfer stage of the judicial proceedings, it seems more likely that decisions about substantiality of risk—that is, whether a substance should be "listed"—would be made once the claims were before the compensation board, as in the other categories of designated compensable events.

The dominant thrust of this rather complex, three-pronged process would be to establish generic listings of toxic substances and related harms, along the lines of the Vaccine Act. These listings could serve as the basis for the disposition of mass toxics claims without the time-consuming, costly inquiry into causal relations—invariably side-tracked by collateral legal issues and lawyers' procedural wrangling—that has come to characterize toxic tort litigation.

Much of toxic tort litigation expense is consumed, however, by the nongeneric demands of a toxics case—the issue of individual exposure—and it is essential to consider the corresponding nongeneric dimension of the statutory presumption process. Satisfying this final element in a toxics no-fault compensation case presumably would necessitate the same reliance on case-by-case determinations as in the tort system. Of course, it would in some instances be possible to streamline the process by creating subcategories of representative cases based on "typical" patterns of exposure and pathology, but this device has also been employed in mass

tort litigation.<sup>81</sup> The salient question seems to be whether there would be substantial gains in fairness and efficiency by shifting these individualized factual inquiries from the judicial and pretrial settlement processes to an administrative forum. The far-greater lawyering costs imposed by the tort system must be weighed against the prospective bureaucratic biases of an administrative decision-making apparatus; it comes down to an institutional choice between trial—or settlement in the shadow of litigation—and a specialized administrative processing and distribution system. It seems highly unlikely, even in an administrative system, that a panel of scientific experts would be utilized for these case-by-case decisions, as contrasted to the generic determinations to list toxic substances.

Once the jurisdiction of the compensation scheme is expanded to incorporate a broad definition of toxics, still another troublesome feature of individualized claims treatment must be confronted; namely, the potential contribution of the claimant to her own injury. On this count, however, recourse to established no-fault models may point the way to a resolution. The fundamental premise of a no-fault system is informed by insurance considerations rather than an effort to achieve two-party justice. In view of this premise, workers' compensation and automobile no-fault plans generally provide an exceedingly limited bar for victim fault. The notion is that compensation is a more important goal of the system than promoting optimal accident prevention measures—which, of course, may be pursued in some cases through other regulatory strategies. The same, straightforward argument can be made for compensating even those drug-injury victims who fail to abide by the terms of a warning label, assuming the statutory criteria for a rebuttable presumption have otherwise been met.<sup>82</sup>

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81. See, e.g., *Cimino v. Raymark Indus.*, 751 F. Supp. 649 (E.D. Tex. 1990) (applying a collective adjudication scheme to a large class of asbestos plaintiffs); *Allen v. United States*, 588 F. Supp. 247 (D. Utah 1984) (litigating 24 "bellweather" claims to establish framework for future claims), *rev'd on other grounds*, 816 F.2d 1417 (10th Cir. 1987), *cert. denied*, 484 U.S. 1004 (1988). For recent discussions of *Cimino* and the benefits of aggregation of mass tort cases, see Michael J. Saks & Peter D. Blanck, *Justice Improved: The Unrecognized Benefits of Aggregation and Sampling in the Trial of Mass Torts*, 44 STAN. L. REV. 815, 819-26 (1992); Glen O. Robinson & Kenneth S. Abraham, *Collective Justice in Tort Law*, 78 VA. L. REV. 1481, 1490-96 (1992). See generally Linda S. Mullenix, *Beyond Consolidation: Postaggregative Procedure in Asbestos Mass Tort Litigation*, 32 WM. & MARY L. REV. 475 (1991) (exploring the feasibility of a judicial approach to resolving the asbestos litigation through consolidation techniques).

82. By contrast, substantial arguments can be made for a strong warning-defense in product-related tort cases. See Alan Schwartz & W. Kip Viscusi, *The Appropriate Role of Warnings in Connection with Product-Related Accidents* (1991) (working paper pre-

If this circumscription of a bar for victim carelessness remains troublesome, it should be noted that the issue is likely to be purely academic: in no case, to date, has a *mass* tort episode arisen in a situation where victims failed to respect the terms of a warning.<sup>83</sup> Rather, the mass toxics cases have arisen out of risks that were unknown to the victim-class at the time the product was marketed and, indeed, throughout much of the period of latency. There is no apparent reason to think that this scenario will be less likely in the future.

### B. *Setting Limits on Compensation*

A second important set of issues that must be resolved in fashioning an administrative compensation approach focuses on how much reparation will be provided. The first-order issues are straightforward. As in any no-fault scheme, an initial determination must be made whether any limits will be placed on the recovery of medical expenses and lost earnings, and whether recovery will be allowed for intangible loss. As far as economic loss is concerned, there seems no reason to depart from the typical practice under workers' compensation and the environmental no-fault proposals: recovery would be allowed for all reasonable medical expenses and a substantial proportion of lost earnings—perhaps two-thirds, with an indexed ceiling on total allowable recovery. With regard to intangible loss, the trade-off arguments applicable to any full-blown no-fault scheme—universal coverage from an insurance perspective in return for elimination of costly discretionary decisions about individualized responsibility and harm—also operate in the mass toxics area. Indeed, the focus of the toxics scheme on *mass* harm gives special force to the administrative cost-cutting underpinning for the trade-off argument. Thus, intangible loss would best be denied, although a modest, lump-sum schedule of awards for designated “serious” disabling conditions would be a viable option. In all of these respects, the issues related to compensation levels and categories under a toxic harm no-fault scheme are not distinctive in character.

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pared in connection with the American Law Institute study, see ALI REPORT, *supra* note 72). See also 2 ALI REPORT, *supra* note 72, at 57-82.

83. Cigarette smoking would constitute a major exception to this rule if counted as a prospective candidate for relief under a toxics compensation scheme. For a discussion of the assumed risk defense in cigarette tort litigation, see Robert L. Rabin, *A Sociolegal History of the Tobacco Tort Litigation*, 44 STAN. L. REV. 853 (1992) (exploring the role of assumed risk and warning labels in the two waves of tobacco tort litigation).

The same cannot be said, however, for a number of related problems that have been much discussed in the toxic tort literature, beginning with the issue of probabilistic recovery.<sup>84</sup> It is a safe assumption that whatever the risk threshold for designating a particular chemical substance as a listed toxic, in virtually every instance of mass harm there will remain a fairly substantial residual—but unidentifiable—number of cases that are a consequence of background conditions of living. Thus, if ingestion of a designated drug increases the risk of liver cancer from four to nine in every thousand members of an “exposed” population, it continues to be the case that four victims of the disease in each cohort have succumbed because of pathological circumstances that remain independent of the toxic substance in question. If, in fact, all nine victims are allowed to claim against the fund, payment of full compensation to each victim would exceed the appropriate level of activity-related disbursements.

One method for dealing with this problem would be to allow each of the claimants five-ninths of the recovery otherwise available from the fund. There are, however, a number of possible objections to this resolution of the issue. At a pragmatic level, probabilistic recovery is based on a set of assumptions about scientific certainty in assessing risk that may be necessary in establishing thresholds for recovery, but certainly become problematic as a mechanism for pinpointing precise recovery levels in individual cases.<sup>85</sup> From an accident-prevention perspective, there are additional reasons for doubting the wisdom of probabilistic recovery. Even if financing is keyed to risk enhancement, the fund approach departs from the optimal deterrence model in any event because intangible loss is borne by the claimant. Hence, it is something of an illusory search for fine-tuned injury prevention to adopt a highly refined probabilistic approach to recovery. Finally, from a compensation perspective, the trade-off notion that is a fundamental premise of no-fault “insurance” is undermined by reducing recovery significantly below a reasonable approximation of full economic loss.

With these considerations in mind, there is a strong case for rejecting a discount in individual recoveries to the level of probabil-

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84. See, e.g., Rosenberg, *supra* note 31, at 898-900; Glen O. Robinson, *Multiple Causation in Tort Law: Reflections on the DES Cases*, 68 VA. L. REV. 713, 759-67 (1982).

85. Indeed, the existing scientific uncertainty about toxicity levels may be so great as to undermine generally the advisability of adopting an administrative compensation scheme. This fundamental issue is discussed below. See *infra* text accompanying notes 97-101.

istic loss.<sup>86</sup> In fact, none of the existing or proposed disease-related no-fault schemes appears to take seriously the prospect of risk-driven reductions in the level of reparation for economic loss, despite the obvious fact that “too many” claims are recognized as a consequence. As in the case of the Black Lung program, the more appealing strategy could be simply to tighten up the threshold standard (presumption) for recovery.<sup>87</sup>

Apart from probabilistic recovery, two relatively new departures in damages, which have achieved some prominence in toxic tort cases, deserve consideration. Both types of claims arise out of a central characteristic of toxic harms—the long latency period between exposure and actual awareness of injury. In the interim, particularly when early claims begin to receive publicity, individuals who have been exposed to a toxic substance may incur tangible expense for medical monitoring and experience intangible “loss” derived from fear of injury.<sup>88</sup>

Allowing recovery for fear of injury, however realistic the concern, seems inconsistent with the basic purposes of a no-fault scheme. The insurance underpinning for administrative compensation would be seriously compromised by individualized, case-by-case determinations of subjective reactions to health concerns; the determinations would be extraordinarily costly to reach and the temptations to inflate claims would be substantial. In the alternative, a scheduled lump-sum approach might be adopted, but it is difficult to devise a standard that would fall short of virtually automatic recovery for every exposure victim. If general pain and suffering is to be excluded from a compensation scheme, there seems to be no substantial argument for treating fear of harm in a different fashion.

By contrast, medical monitoring expenses are a form of economic loss that raise none of the preceding valuation problems, and clearly “arise out of”—under a liberal construction of the term—exposure to a toxic substance. As a consequence, there is no reason in principle for denying recovery to claimants simply on the basis that they have not yet contracted the disease. But recovery might be

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86. These considerations primarily relate to no-fault compensation, and as a consequence, do not, in themselves, override the arguments in favor of probabilistic recovery in product and environmental cases within the tort system.

87. For discussion of the use of presumptions in the Coal Miners' Health and Safety Act, see BARTH, *supra* note 3, at 109-28.

88. For a discussion of the “fear of injury” case law, see MARC A. FRANKLIN & ROBERT L. RABIN, *CASES AND MATERIALS ON TORT LAW AND ALTERNATIVES* 309-11 (5th ed. 1992).



systematically denied on purely pragmatic grounds if the universe of potential claimants against the fund is adjudged likely to be so large that the fiscal demands of reimbursing monitoring costs would be politically unacceptable. This is not an issue that can (or need be) resolved here, but it would have to be addressed in a detailed version of a toxic no-fault approach.

### C. *Deciding Whether to Retain the Tort System*

Some of the issues addressed in the preceding discussion are closely linked with whether the tort system is to be retained above the limits of the administrative compensation scheme. For example, there is a weaker argument for lump-sum intangible loss awards within the no-fault scheme if the tort system is retained above some threshold definition of "serious" injury. Similarly, any wage-loss ceilings adopted under a compensation scheme might be set at more modest levels in recognition of the continuing prospect of residual tort liability.

In practice, the tort system has been retained in some no-fault schemes and eliminated in others. Workers' compensation systems are intended to serve as a replacement for tort liability, although third-party liability suits constitute a significant qualification to the exclusivity principle.<sup>89</sup> By contrast, even the most generous automobile no-fault schemes have retained the tort system for wage loss and intangible harm above the limits established in the legislation.<sup>90</sup> As indicated earlier, the vaccine, Superfund and ELI no-fault models each retain the tort system, either as an alternative or supplementary avenue of recourse.<sup>91</sup>

The distinctive characteristics of the mass toxic harm problem counsel strongly against retaining a supplementary tort remedy. There is an important difference between auto accidents and mass toxic harm; in the case of auto accidents, the vast majority of claims are for relatively minor injuries that can be fully compensated within a moderately generous no-fault scheme. A principal aim of retaining a residual tort remedy is to address the relatively small percentage of cases that involve very serious injuries. By contrast, past experience with mass toxic harms suggests that a very substantial proportion of the claims is likely to satisfy any reasonable definition

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89. See Paul C. Weiler, *Workers' Compensation and Product Liability: The Interaction of a Tort and a Non-Tort Regime*, 50 OHIO ST. L.J. 825, 834-38 (1989) (examining the rise in third-party liability suits).

90. See, e.g., N.Y. INS. LAW § 5104 (McKinney 1985).

91. See *supra* text accompanying notes 64-67.

of "serious" injury. As a consequence, a major purpose of adopting an administrative compensation approach—reducing the high litigation costs associated with a mass toxics incident—is likely to be defeated by a supplementary tort remedy. If tort continues to be available, judicial dockets are likely to remain overburdened by large numbers of claims, massive numbers of tort litigants are likely to incur huge administrative costs, and many will experience interminable conflict over the range of legal issues that has come to characterize these cases.<sup>92</sup>

The asbestos litigation is, in fact, illustrative of the problem. Because of the opportunity for third-party litigation, the workers' compensation system has, in effect, functioned as a non-exclusive forum for asbestos-related injuries with tort liability playing a major supplementary role. As a consequence, the compensation scheme has been tantamount to a financing mechanism for tort litigation, which has imposed enormous costs on all concerned.<sup>93</sup>

The arguments for tort liability as a mutually exclusive alternative form of relief, as distinguished from a supplementary source of compensation, are somewhat different. The strongest argument for retaining tort as an alternative pathway for mass toxics victims is an abiding popular suspicion of "welfare" programs. First, there is the political concern that the ceilings on compensation—particularly for lost wages—would simply be set too low, or allowed to fall below continuing inflationary effects on the economy. Mindful of the private alternative of voluntarily purchased loss insurance, the prospect of inadequate compensation levels remains a real concern. Second, there is a bureaucratic concern that the system, despite its reliance on a science panel and presumably independent hearing boards, might exhibit undue conservatism in the face of a staggering

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92. This is not, however, an inevitable result. If the ceilings under an administrative compensation scheme were sufficiently high and no double recovery in tort were allowed, the scheme in effect might serve as an exclusive remedy. To put it otherwise, if secondary reliance on the tort system offered only the prospect of intangible loss discounted by attorneys' fees and litigation costs, recourse to the tort system might not be a particularly attractive option. If intangible loss in the residual tort system were capped, tort litigation would become still less desirable. The point is that various approaches to retaining tort as a supplementary system of relief are available—through manipulating either the basic compensation scheme, the residual tort system, or both—which, at the extreme, in effect foreclose the tort option once administrative compensation has been afforded.

93. See, e.g., Donald L. Spatz, *Issues in Asbestos Disease Compensation*, in *CURRENT ISSUES IN WORKERS' COMPENSATION* 300-03 (James R. Chelius ed., 1986).

volume of claims for catastrophic loss.<sup>94</sup> Finally, there is the fairness concern that any administrative compensation system, because it does cap recovery at some level, is bound to be least generous to the most devastatingly disabled (counting pain and suffering as a real, albeit unrecoverable, element of loss). Thus, whatever its virtues, many observers would recoil at the prospect of making the administrative compensation scheme truly exclusive.

The question is whether the tort system can remain open as a "fail-safe" alternative without diverting so many cases from a *well-functioning* administrative scheme as to make the reform effort meaningless. As an initial measure, claimants would have to be put to a binding choice between the two alternative systems. Unless recourse to tort constitutes an irrevocable waiver of no-fault compensation, the asbestos experience will be replayed: claimants will almost invariably sue in tort, even though they have recovered statutory benefits. In addition, the tort remedy should be sharply constrained by placing a relatively low ceiling on recovery of non-economic loss and revoking the collateral-source rule for other nontort benefits. These measures, along with the intrinsic uncertainties of tort law, should suffice to ensure that claimants would opt out of the compensation scheme only in circumstances where it was failing to fulfill its basic purposes.

#### D. *Financing the System*

Typically, a no-fault scheme is financed through charges imposed on those parties engaged in the injury-producing activity. Beyond that common ground, however, there is considerable divergence among systems in the effort to promote accident prevention by experience-rating the contributors: workers' compensation systems in practice generally attempt to fine-tune premium rates, to some extent, to the risks associated with various occupations; automobile no-fault premiums, by contrast, are not particularly sensitive to accident involvement.<sup>95</sup> The two toxic no-fault proposals dis-

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94. There are other scenarios, as well. The compensation system might, for example, be resistant to reversing course in the face of new scientific evidence because of image considerations.

The bureaucratic resistance to Agent Orange claims is discussed in SCHUCK, *supra* note 5, at 24, 78-79. Whether the agency's recalcitrance was motivated by mass claim and/or image considerations is a matter of conjecture, but the possibilities certainly cannot be ruled out.

95. The New Zealand comprehensive no-fault system has been challenged by American critics because of its relative indifference to the goal of cost internalization. See, e.g., Miller, *The Future*, *supra* note 21, at 34-35, 76-77; James A. Henderson, Jr., *The New Zea-*

cussed earlier exhibit a similar divergence within the same general area. The ELI proposal would adopt a phased-in hazard fee reflecting the risk-generating character of contributing enterprises, while, to the contrary, the Superfund proposal would establish a flat tax on petroleum products and chemical feedstocks.<sup>96</sup>

From a deterrence perspective, it is far from clear that the choice between a flat-tax and a risk-sensitive schedule of charges makes any substantial difference. The doubts are similar to those expressed about the tort system's injury-prevention potential in toxic harm cases; the unforeseeability of the risk at the time of production, disagreement over an appropriate discount rate, disinclination of management to consider long-term consequences, and long latency, generally, between exposure and illness undermine the preventive potential of *any* liability system.<sup>97</sup> Moreover, there are parallel regimes of regulatory control—in particular, CERCLA and RCRA in the hazardous waste area<sup>98</sup> and the Food and Drug Administration with respect to drugs—that arguably diminish the significance of liability rules in achieving optimal deterrence.<sup>99</sup> Ironically, in many of the leading cases of mass tort liability, the product has in fact been pulled off the market or the producer is in bankruptcy long before the overall injury toll has been recorded.

It does not follow, however, that any system of financing the administrative compensation scheme is equally acceptable. Fairness considerations serve as an alternative rationale for creating as close a linkage as possible between risk-producing activities and financial responsibility for the consequences. In general, then, there is merit to the ELI effort to devise a contribution scheme that reflects the risks associated with covered sources.<sup>100</sup>

A key issue is how the fund would be financed initially, before a historical pattern of compensation claims can be established. It would probably be necessary to rely at the outset upon a flat tax linked to gross revenues, rather than a system of charges fine-tuned

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*land Accident Compensation Reform*, 48 U. CHI. L. REV. 781, 794-98 (1981) (reviewing GEOFREY PALMER, *COMPENSATION FOR INCAPACITY* (1979)).

96. See *supra* text accompanying note 58.

97. See Kenneth S. Abraham, *Individual Action and Collective Responsibility: The Dilemma of Mass Tort Reform*, 73 VA. L. REV. 845, 883-84 (1987); Strand, *supra* note 5, at 600-07.

98. See Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601-75 (1988); Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-92k (1988).

99. See Stephen D. Sugarman, *Doing Away with Tort Law*, 73 CAL. L. REV. 555, 563-64 (1985).

100. See *supra* text accompanying note 59.

to injury-generating conduct. Eventually, however, the claims and payout records of the fund would provide the raw data for phasing in a hazard-derived schedule of charges to replenish the fund on a periodic basis. In the alternative, the fund could be given a right of subrogation against the sources of compensation claims. Because exposure to some identifiable source would be a standard requirement for establishing a claim in the first instance, the data required for either a schedule of hazard charges or a subrogation strategy presumably would be readily at hand.

### III. THE UNEASY CASE FOR A COMPENSATION SCHEME

Many supporters of the tort system would agree that the traditional two-party corrective justice model of tort liability is inadequate for dealing with mass toxic tort cases. They would contend, however, that the tort system can be substantially restructured to address the most significant problems created by these singularly complex catastrophic occurrences of product and environmental harm.<sup>101</sup> Thus, in an effort to reduce administrative costs and promote evenhanded treatment of similarly situated injury claimants, a hybrid tort process could be established whereby cases would be transferred to a single federal court, consolidated for pretrial discovery and subsequent adjudication, disaggregated when appropriate for test case resolution of representative claims, disposed of through recourse to probabilistic recovery and proportionate liability, limited to single awards of punitive damages, and subjected, generally, to whatever further innovative measures appeared consistent with fair and efficient resolution of the controversies.<sup>102</sup> Unquestionably, these techniques would be a constructive response to the justified criticism of traditional tort-system performance in litigation over products such as asbestos and DES.

There is a substantial basis, however, for pessimism about the efficacy of these techniques. If the litigation involving asbestos, DES, Agent Orange, the Nevada atomic tests, and the like is subjected to close scrutiny, one finds collateral issues—insurer respon-

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101. See, e.g., ABA COMMISSION ON MASS TORTS, REPORT AND RECOMMENDATIONS (1989); Mullenix, *supra* note 81; Linda S. Mullenix, *Class Resolution of the Mass-Tort Case: A Proposed Federal Procedure Act*, 64 TEX. L. REV. 1039 (1986) (proposing streamlined procedures for resolving mass tort cases within the context of the traditional tort system); David Rosenberg, Comment, *Of End Games and Openings in Mass Tort Cases: Lessons from a Special Master*, 69 B.U. L. REV. 695 (1989) (proposing a model of collective processing and criticizing attempts to supplant the tort system with insurance schemes).

102. For discussions of these and other aggregative techniques, see sources cited *supra* note 81.

sibility, the government-contractor defense, governmental immunity, and choice of law, among others—as well as mutual re-  
crimination and antagonism among attorneys, which invariably re-  
sult in multiple appeals, staggering litigation costs, and long  
delays.<sup>103</sup> While it is impossible to predict the precise focus of these  
collateral disputes and delays in future cases, they have occurred  
just as inexorably in innovatively handled mass tort conflicts as in  
traditional serial litigation. It thus seems fair to assume that the tort  
system will continue to labor under the weight of its institutional  
inadequacies in these controversies.

Unfortunately, however, the superiority of a no-fault approach  
is far from clear. Initially, there is the core question of whether a  
toxics-listing mechanism, linked to a presumption of liability, is  
likely to function more efficaciously than the costly, time-consuming  
causal inquiry in the tort system. Most such listing mechanisms,  
such as the Proposition 65-originated governor's list of carcinogens  
and reproductive toxicants mandated in California's Safe Drinking  
Water and Toxic Enforcement Initiative of 1986,<sup>104</sup> have been es-  
tablished for purposes of requiring product warnings or prohibiting  
releases of pollutants—above prescribed limits—into the water or  
air. They have not purported to establish a foundation for individ-  
ual claims of personal harm; and even the scientific underpinnings  
of their more modest objectives have been the subject of heated  
controversy.<sup>105</sup> In Japan, pioneering legislation that established a  
pollution-related health damage compensation act for respiratory  
illness was recently abandoned after more than a decade of contro-  
versy over the scientific basis for presuming a causal linkage be-  
tween industrial sources and exposure victims.<sup>106</sup> Limited reality-  
testing suggests, then, that a broadly-conceived toxic harm standard

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103. Limitations on attorneys' fees and the disposition of later-arising claims are two other illustrative examples of recurring issues. *See generally* ALI REPORT, *supra* note 72 (providing a detailed treatment of collective judicial procedures in mass toxics cases).

104. CAL. HEALTH & SAFETY CODE §§ 25180.7, 25189.5, 25192, 25249.5 to 25249.13 (West 1992).

105. *See, e.g.*, EDWARD J. BURGER, JR. ET AL., CLEAN WATER AND TOXIC WASTE: AT WHAT COST FOR WHAT GAIN? AN ANALYSIS OF CALIFORNIA'S PROPOSITION 65 (National Legal Center for the Public Interest 1989); Judith A. DeFranco, Comment, *California's Toxics Initiative: Making It Work*, 39 HASTINGS L.J. 1195 (1988) (arguing for extensive regulatory interpretation to reduce uncertainty and vagueness in the language of the statute).

106. *See* Alice Stewart, Comment, *Japan's 1987 Amendment to the 1973 Pollution-Related Health Damage Compensation Law: Tort Reform and Administrative Compensation in Comparative Perspective*, 29 HARV. INT'L L.J. 475 (1988) (discussing the genesis of the compensation law, criticisms of its mechanisms, and the reforms that phased out the core provisions of the scheme).

may be overambitious in its reach, given the current state of scientific learning.<sup>107</sup>

If so, the main source of toxic harm claims under the scheme might well be a new generation of high-volume tort litigation transferred into the administrative compensation system: the next wave of asbestos and Dalkon Shield-type cases. Because the early-arising injury claims in these nascent mass toxics cases would have no initial recourse to the administrative compensation system,<sup>108</sup> the efficacy of a switching mechanism is critical. At the outset, vital questions of timing arise. If the transfer trigger is set too early, indispensable information that would have been uncovered through pretrial discovery may remain inaccessible. On the other hand, if the trigger is set too late, pretransfer litigation costs may mount to the point where the savings through eventual administrative disposition are negligible.

Another timing issue centers on the role of the science panel in making a generic determination of adequate proof of causation. If the panel advises the transferring court on the issue of adequate causation, the question arises whether—in terms of expertise gains, at least—the administrative process offers much in the way of benefits as compared to a restructured tort system, which could similarly employ the panel if consolidation were effected. By contrast, if the science panel reviews the evidence *after* transfer, there are difficult questions regarding the potential revitalization of tort claims if the panel finds insufficient evidence of causation to support a generic determination of toxic harm.

Entirely apart from timing issues, the threshold need to designate a compensable event raises a host of questions about comparative institutional competence that are not easily answered. Once a

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107. There are, of course, other models of no-fault schemes in which compensation for activity-related *disease* is recognized. The closest counterpart of compensation for broadly defined toxic harms is workers' compensation. The causal nexus in workers' compensation is, however, established from a different perspective—namely, whether the harm was work-related or not. The performance of workers' compensation boards underscores the reservations expressed in the text; reportedly, the administrative determinations are costly and controversial because the scientific data in support of these claims are frequently so problematic. See PETER S. BARTH, WORKERS' COMPENSATION AND WORK-RELATED ILLNESSES AND DISEASES 255-57, 268-69 (1980); Leslie I. Boden, *Problems in Occupational Disease Compensation*, in CURRENT ISSUES IN WORKERS' COMPENSATION, *supra* note 93, at 315-18.

108. Toxic exposures that remain isolated events, characterized by traditional proof of individual causation (*e.g.*, a doctor's testimony), as suggested throughout this discussion, simply do not raise sufficiently distinctive issues to warrant inclusion under a focused no-fault replacement of tort liability.

generic determination of causal relationship between source and harm has been reached, is it preferable to have *individual* exposure or harm claims decided by an administrative board or a jury? If these decisions involve subcategorization and representative-case treatment, are they better handled through an administrative process, adjudication, or alternative dispute resolution? Does the prospect of consolidated pretrial settlement (in a reformed tort system) offset the cost advantages of relatively informal administrative dispositions on a case-by-case (or subcategory-wide) basis?

The funding of a broad-based administrative compensation scheme—anticipating mass toxics claims from drug as well as pollution-related environmental injuries—poses another set of difficult questions. Whether the fund is financed by a gross revenue-based or experience-rated tax, there would undoubtedly be serious objections to an allocation scheme that “mixed apples and oranges”—that is, required contributions both from exposure-related and ingestion-related sources of toxic harm. Yet, as we have seen, a broad-based toxic no-fault scheme—of necessity—would have to offer expansive coverage of environmental *and* pharmaceutical harms if it were to encompass the major instances of mass injury claims. These objections could be met, in part, by designing a subrogation feature into the financing scheme. But this initiative, in turn, would raise legitimate questions about the continuing comparative cost-effectiveness of an administrative compensation approach.

Because a working version of a mass toxics administrative compensation scheme has never been fully implemented, it is impossible to answer all of these questions with real confidence. Nonetheless, if there were a clear prospect of a significant number of discrete mass tort cases occurring in the future, on the scale of asbestos and Dalkon Shield—in other words, tens of thousands of related claims arising over a period of years on a nationwide basis in state and federal courts—the case for resorting to a broad-based no-fault scheme would be very strong. From a compensation perspective, the tort system simply is not designed to handle a massive volume of related claims in a relatively uniform, cost-efficient method. Even if generic and individual causation issues can be handled in a quasi-administrative fashion through innovative restructuring of the tort process, there is no reason to be sanguine about diminishing the excesses of inventive—and disruptive—lawyering strategies on collateral issues.

Another scenario, however, not inconsistent with developments over the past decade, would be that the next generation of mass toxics personal injury cases will be sporadic hazardous waste litiga-



tion, rather than a new outburst of asbestos-type catastrophes. These cases would involve geographically and numerically circumscribed clusters of "neighborhood" exposure claims, along with an occasional pharmaceutical case in the numerosity range of Bendectin and MER/29—that is, a volume in the upper range of one thousand cases. Although the tort system has not earned high marks for its disposition of these controversies, aggregative techniques may offer sufficient promise—given the uncertainties about the actual performance of an administrative compensation system and the lack of political support for such a scheme (in the absence of a crisis atmosphere)—to counsel against tort replacement under present circumstances. This scenario counsels a wait-and-see attitude.

Administrative compensation schemes offer greatest promise when the compensation-triggering "event" features a relatively clear relationship between source, substance, and pathological condition. Vaccine-related harms are a good example; radiation exposure cases, arising out of a nuclear reactor mishap, arguably would also provide sufficient clarity. In such cases, no-fault has the dual advantage of providing an insurance principle for awarding compensation and assigning losses commensurate with more optimal deterrence. When one ventures, however, into the unconfined area of mass toxic harms, administrative compensation schemes share many of the burdens that beset a reconstructed aggregative tort liability approach.