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"FOR OUR OWN GOOD:" FEDERAL PREEMPTION OF STATE TORT LAW—RISK, REGULATION, AND THE GOALS OF ENVIRONMENTAL PROTECTION

JOHN ROBERTSON*

The present labyrinth of environmental regulation necessarily presents difficult interpretive choices for any reviewing court. Under the shadow of the Supremacy Clause,¹ all state laws must give way to any express or implied directive of federal law.² Federal lawmakers, caught in a maelstrom of political special interests, are usually far from explicit in defining the scope of such laws, leaving the problems of interpreting statutory ambiguities and congressional intent to the courts.³ In fact, political pressure may even persuade Congress to exclude intentionally important protective aspects of environmental protection laws.⁴

Nor are regulatory agencies immune from the effects of bias and political motivation. In attempts to reconcile the frequently divergent interests of industry and environmental protection under a "feasible" regulatory framework, an agency may subjectively interpret sketchy data to create "middle-of-the-road" regulations or standards which masquerade as the result of "valid" scientific conclusions.⁵ While these results may be sufficient to create minimum, or "floor," standards, the uncertain nature of these conclusions should prompt states to err on the side of caution by allowing their citizens to protect themselves through state tort law.

With this in mind, protective state tort laws must not be preempted by federal regulations or action for several reasons. First, utilizing subjective scientific conclusions to neutralize tougher state laws in the name of "regulatory uniformity" does little to further public health and environmental protection. Second, allowing state tort actions to coexist with federal regulations will

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^{1.} U.S. CONST. art. VI, cl. 2.

^{2.} See McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316 (1819).

^{3.} See Cipollone v. Liggett Group, Inc., 505 U.S. 504 (1992) (deriving meaning of federal law from principles of statutory interpretation and forensic examination of congressional intent in legislative history).

^{4.} One of the most important and controversial federal environmental protection statutes, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), 42 U.S.C. §§ 9601-9675 (1988 & Supp. 1993), originally included a provision allowing personal injury claims; this provision was completely excluded from the final draft before the bill became law. See S. 1480, 96th Cong., 1st Sess. § 4(a) (1980).

^{5.} Howard Latin, Good Science, Bad Regulation, and Toxic Risk Assessment, 5 YALE J. ON REG. 89, 91 (1988) ("Inadequate scientific knowledge and inadequate data usually prevent derivation of risk estimates based on reliable science.").

efficiently help to forward environmental policy goals, remedy localized harms which are not adequately addressed in federal law, and allow a forum for public input into regulatory processes. Finally, the fear of court action provides the best market incentive for industry to create more ecologically-friendly advancements in technology and will stimulate collaboration between environmentalists and industry to frame realistic regulatory baselines.

I. FEDERAL ACTION AND THE SCOPE OF PREEMPTION

The grand scheme of checks and balances between federal and state powers in the United States necessarily creates a tension where regulation is concerned. Under Supreme Court Supremacy Clause jurisprudence, federal preemption of state law may occur by express terms in federal statutes,⁶ or may be inferred where the scheme of federal regulation is comprehensive,⁷ or where the federal interest is so dominant as to preclude enforcement of state laws on the same subject.⁸

When state and federal powers conflict in the absence of express statutory preemption, however, the courts are forced to wind their way through statutory labyrinths to determine the scope of preemption through examination of legislative intent.⁹ Such judicial "mind-reading" exercises are inherently flawed because any meaning courts may find in congressional silence is contrived at best. Silence should never be allowed to supplant traditional state police powers or common law when the health and welfare of the public are at issue.

The attitude of the Supreme Court towards the scope of preemption has varied over the years.¹⁰ Presently, the Court appears reluctant to allow federal preemption of state common and statutory law.¹¹ This presumption against preemption is evident in recent Supreme Court decisions where regulations pertain to health or safety issues,¹² where there is no federal remedy for the plaintiff's

^{6.} See Jones v. Rath Packing Co., 430 U.S. 519, 525 (1977).

^{7.} Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947).

^{8.} Hines v. Davidowitz, 312 U.S. 52 (1941).

^{9.} See Wisconsin Pub. Intervenor v. Mortier, 501 U.S. 597 (1990) (detailing framework of preemption analysis).

^{10.} See William W. Bratton, Jr., The Preemption Doctrine: Shifting Perspectives on Federalism and the Burger Court, 75 COLUM. L. REV. 623, 626 (1975) (discussing expansion or contraction of preemption doctrine through application of presumptions in favor of or against preemption). 11. See id. at 649.

^{12.} See Hillsborough County v. Automated Medical Lab., Inc., 471 U.S. 707, 715 (1985) (blocking preemption of state law governing blood/plasma products by Food and Drug Administration regulations); see also Kassel v. Consolidated Freightways Corp., 450 U.S. 662, 670 (1981) (employing deference to state regulation of safety under dormant Commerce Clause).

injury,13 or where Congress drafts statutes ambiguously.14

Lower courts have attempted to balance the conflicting goals of product safety, which are enhanced by state tort law, against product availability and use, which is frustrated by tort liability. They have looked to whether federal regulations strike the appropriate balance between safety and quantity or serve only as minimum standards.¹⁵ Federal approval of certain product designs and warnings through extensive regulatory procedures has been held to be "not necessarily in conflict" with jury determinations of tort liability.¹⁶ Such holdings are not the norm, however, and considerable variation exists among courts as to how extensive or specific a federal regulatory statute must be before courts are allowed to infer preemption of state law.¹⁷

In all cases that involve implied preemption, courts focus on the underlying congressional intent behind federal laws or actions to determine the scope of preemption.¹⁸ Thus, they add a new hurdle to the route which victims of pollution must traverse during litigation. Besides surmounting difficult proof problems of causation, plaintiffs must also worry that courts will find that their cause of action has been impliedly preempted by congressional intent. Ironically, by attempting to address pollution issues at a national level, federal environmental statutes have added a new weapon to the polluters' arsenal of litigation strategies. An analysis of federal regulatory law indicates that this result is rarely, if ever, consistent with the underlying goals of federal environmental protection.

^{13.} See Silkwood v. Kerr-McGee Corp., 464 U.S. 238, 251 (1984), cert. denied, 476 U.S. 1104 (1986) (finding no congressional intention to preempt state tort remedies by Atomic Energy Act of 1954). But see Duke Power Co. v. Carolina Envtl. Study Group, Inc., 438 U.S. 59, 88 (1978) (indicating that there is no constitutional requirement that federal law, when preempting state causes of action, "either duplicate the recovery at common law or provide a reasonable substitute remedy"). 14. See Cipollone, 505 U.S. at 516-17 (allowing express language of Public Health Cigarette Smoking Act of 1969 to preempt only those state tort claims that rely on failure to warn or misrepresentation in federally approved warning labels but not other state tort remedies).

^{15.} See Abbot by Abbot v. American Cyanamid Co., 844 F.2d 1108, 1113-14 (4th Cir. 1988), cert. denied, 488 U.S. 908 (1988) (rejecting argument that national public health purposes would be frustrated by state tort law liability).

^{16.} Callan v. G.D. Searle & Co., 709 F. Supp. 662, 664-65 (D. Md. 1989) ("This is particularly true where plaintiffs allege ... that defendants misrepresented or withheld relevant data concerning [the product], causing the [federal agency] to base its decisions on erroneous or incomplete information.").

^{17.} See Hunsaker v. Surgidev Corp., 818 F. Supp. 744, 749-53 (M.D. Pa. 1992) (indicating that "investigational devices exception" under Medical Devices Act creates both floor and ceiling of regulatory standards which preempt any conflicting state laws having regulatory effect).

^{18.} Cipollone, 505 U.S. at 516 (quoting Malone v. White Motor Corp., 435 U.S. 497, 504 (1978)).

A. The Federal Impetus To Regulate

In an effort to deal with increasing national pollution problems in the 1970s, Congress began to enact and strengthen a variety of federal environmental laws.¹⁹ These federal statutes have shouldered the primary burden of regulating the environment because traditional common law actions were not adequate to deal with the widespread nature of pollution in an increasingly urban society.²⁰ The passage of these laws, however, was frequently prompted by immediately apparent environmental problems—such as smog or the disappearance of wildlife²¹—and by devastating environmental catastrophes that caused enormous public concern—such as the Love Canal disaster and the *Exxon Valdez* tanker spill.²² As a result, because of Congress's piecemeal approach to environmental legislation, modern policymakers have not considered the patchwork of laws a consistent or coordinated response to larger, but less visible, environmental problems.²³

Despite the veritable explosion of federal law concerning environmental matters, statutory provisions for recovery of personal injuries as a result of pollution are noticeably absent from federal legislation.²⁴ In fact, many of these statutes once included such provisions in their original drafts, but these provisions were excised before the bills became law.²⁵ As a result, the only remedies available to private plaintiffs to redress personal injuries are those afforded by state law.²⁶

The omission of personal injury provisions from federal statutes does not contradict the statutes' status as comprehensive.²⁷ Some scholars and courts have suggested that Congress did not incorporate such provisions in federal statutes

27. Id. at 609 n.8.

^{19.} ZYGMUNT J. PLATER ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 244 (1992) ("The most significant development in modern environmental law in the second half of the twentieth century has been the growth in environmental statutes that take on the anticipatory, proactive regulatory function that the common law does not.").

^{20.} See Thomas C. Buchele, Note, State Common Law Actions and Federal Pollution Control Statutes: Can They Work Together?, 1986 U. ILL. L. REV. 609, 609 n.7 (1986).

^{21.} SCIENCE ADVISORY BOARD, U.S. ENVIRONMENTAL PROTECTION AGENCY, REDUCING RISK: SETTING PRIORITIES AND STRATEGIES FOR ENVIRONMENTAL PROTECTION 1 (1990) [hereinafter REDUCING RISK].

^{22.} CERCLA, 42 U.S.C. §§ 9601-9675 (1988 & Supp. 1993), and the Oil Pollution Act of 1990 ("OPA"), 33 U.S.C. §§ 2701-2761 (Supp. II 1988), were designed to deal with each of these types of environmental disasters, respectively.

^{23.} REDUCING RISK, supra note 21, at 1.

^{24.} See H.R. REP. No. 172(I), 96th Cong., 1st Sess. (1979), reprinted in 1980 U.S.C.C.A.N. 6160 (discussing various attempts to pass comprehensive oil spill cleanup legislation).

^{25.} For instance, the original version of CERCLA once had a separate personal injury provision, but this was eliminated before it was made law. See supra note 4.

^{26.} See Buchele, supra note 20, at 609 (noting that federal statutes leave remedial issues largely to state law).

because they were meant to work in conjunction with state laws, thereby leaving the question of adequate remedies for pollution to the states.²⁸ This conclusion is bolstered by the fact that most states have received congressional authorization to implement their own air and water pollution control laws and hazardous waste regulations.²⁹ In addition, states have not allowed their "potent" common law remedies to be displaced.³⁰

B. The Argument for Regulatory Uniformity

Polluting industries continue to assert the "preemption defense," claiming that state tort law will interfere with interstate regulatory uniformity—regulations which, in theory, have been carefully designed to speak comprehensively and pervasively to national environmental concerns.³¹ But does state tort law unfairly subject industry to an unpredictable mosaic of regulatory standards? The Supreme Court addressed this argument in *Ouellette v. International Paper Co.*,³² in which the Court held that the Clean Water Act ("CWA") preempts the state nuisance law of non-source states.

In *Ouellette*, the Court prevented Vermont from imposing its own nuisance law on a New York paper mill's effluent discharge into Lake Champlain because the "application of different state laws to a single 'point source' would interfere with the carefully devised regulatory system established by the CWA."³³ Moreover, the Court held that "[i]t is not enough to say that the ultimate goal of both federal and state law is to eliminate water pollution. A state law also is preempted if it interferes with the methods by which the federal statute was designed to reach this goal."³⁴ The Court noted that Congress, by establishing a permit system, implicitly recognized that the goal of the CWA—the elimination of water pollution—could not be achieved immediately or without incurring

^{28.} Id. at 611-17 (noting common law actions frequently used to combat personal injuries related to pollution, including nuisance, trespass, or theories of negligence or strict liability).

^{29.} Shay S. Scott, Comment, Combining Environmental Citizen Suits & Other Private Theories of Recovery, 8 J. ENVTL. L. & LITIG. 369, 370 (1994).

^{30.} Id.

^{31.} See Joseph T. McLaughlin & Kimberly A. O'Toole, Federal Preemption, C842 ALI-ABA 639, 648 (1993) (noting that federal law may preempt state law when "compliance with both is a physical impossibility or when state law stands as an obstacle to the accomplishment of Congressional purposes and objectives"). Cf. Federal Water Pollution Control Act § 510, 33 U.S.C. § 1370 (1988) (expressly allowing states to adopt more stringent standards than any imposed by federal government).

^{32. 479} U.S. 481 (1987).

^{33.} Id. at 485 (citing Illinois v. Milwaukee, 731 F.2d 403, 414 (7th Cir. 1984), cert. denied, 469 U.S. 1196 (1985)).

^{34.} Id. at 494.

costs.35

Additionally, the Court reasoned that the national permitting system under the National Pollution Discharge Elimination System ("NDPES")³⁶ served Congress's intention to establish "clear and identifiable" discharge standards.³⁷ Otherwise, were Congress to allow the states to exercise plenary power over pollution sources that were not within their boundaries, "[i]t would be virtually impossible to predict the standard for a lawful discharge into an interstate body of water. Any permit issued under [federal law] would be rendered meaningless."³⁸

Importantly, the Court did allow the imposition of New York tort law on the mill's discharges and stated that the burden of the state's own common law did not subject permitees to unpredictable requirements.³⁹ The Court indicated that Congress was not totally insensitive to the interstate nature of pollution and that the CWA affords all potentially affected states the ability to comment on the discharge standards through a public hearing before the permit is issued.⁴⁰ Affected states may not block the issuance of the permit; blocking power is at the discretion of the Administrator of the Environmental Protection Agency ("EPA") who may deny the permit if she determines that the discharge will have an "undue impact" on interstate waters.⁴¹ Sadly, this administrative procedure did not adequately protect Vermont landowners who were forced to initiate court action when their objections failed to avert the mill's dumping which made Lake Champlain "foul, unhealthy, [and] smelly."⁴²

The Court, as seen in this example, was extremely deferential to c congressional judgment when the legislature creates a comprehensive body of regulations—such as emission or discharge standards for pollutants. It is less likely, however, that courts will infer preemption from the comprehensiveness of agency regulations because agencies normally deal with problems in far more detail than Congress.⁴³ As a result, agencies must make their intentions clear if they expect their regulations to be considered exclusive.⁴⁴

The "expert" judgment of these regulators, however, has become the center of controversy and increasing criticism. Though agencies were created to

^{35.} Id.

^{36. 33} U.S.C. § 1342. See generally Environmental Protection Agency v. California ex rel. State Water Resources Control Bd., 426 U.S. 200, 205-08 (1976) (describing NPDES system).

^{37.} See S. REP. No. 414, 92d Cong., 2d Sess., 81 (1971).

^{38.} Ouellette, 479 U.S. at 497 (citing Illinois, 731 F.2d at 414).

^{39.} Id. at 499.

^{40. 33} U.S.C. § 1342(b).

^{41.} *Id.* § 1342(d)(2). *But see* Arkansas v. Oklahoma, 503 U.S. 91, 111 (1992) (finding that states may exercise "virtual" veto power through EPA Administrator who may require upstream polluting states to comport with standards of affected downstream states).

^{42.} Ouellette, 479 U.S. at 484 n.10.

^{43.} Hillsborough County, 471 U.S. at 717-18.

^{44.} Id.

tackle the scientific complexity of environmental problems, they have been surrounded and pressured by divergent public, industrial, environmental, and political interests. As the "neutral" role of agencies has changed during the last three decades because of these pressures, critics have debated the appropriate level of involvement between agencies, the courts, and society in the creation of environmental standards.⁴⁵

II. THE ROLE OF ADMINISTRATIVE AGENCIES IN DEFINING STANDARDS

Under the pressures and omens of national environmental deterioration, the federal government established the EPA and similar regulatory bodies to formulate comprehensive policies in the interests of protecting public health and welfare.⁴⁶ At the time, it was correctly postulated that environmental health was best considered from a holistic perspective, an integrated approach to pollution control which regarded all possible effects of contaminants in the ecosystem, rather than the disjointed and patchwork efforts of several independent agencies.⁴⁷ Finally, it was realized that environmental policy formulation by existing agencies, which had primary objectives separate from environmental protection, would be affected by their own biases.⁴⁸ In theory, the EPA would be able to rise above these biases in its task as impartial arbiter of environmental and economic considerations in the formulation of policy. Unfortunately, theory often differs from practice.

As early as 1982, the potential for abuse and manipulation of agencies by the industries they sought to regulate was acknowledged.⁴⁹ This phenomenon of agency bias toward the interests of regulated industries and businesses, now dubbed the "capture" of an agency by market forces, is a commonly accepted paradigm by the legal community.⁵⁰ It is explained as the result of pressures on agencies which must achieve results but must also solicit cooperation from the regulated interests to implement effectively any regulatory procedures. This arises from the agency's comparative dearth of resources which negatively affects its

^{45.} Peter Huber, Safety and the Second Best: The Hazards of Public Risk Management in the Courts, 85 COLUM. L. REV. 277, 329 (1985) ("The legal system has no special competence to assess and compare public risks, and the legal process is not designed or equipped to conduct the broad-ranging, aggregative inquiries on which sensible public-risk choices are built. Expert administrative agencies . . . remain best able to regulate public risks.").

^{46.} Reorganization Plan No. 3 of 1970, 35 Fed. Reg. 15,623, *reprinted in* 42 U.S.C. § 4321 (1988). 47. *Id.*

^{48.} Id.

^{49.} See Louis L. Jaffe, The Effective Limits of the Administrative Process, 67 HARV. L. REV. 1105, 1109 n.7 (1954) (quoting letter from Attorney General to president of a railroad, speculating that Interstate Commerce Commission would adopt railroad's perspective).

^{50.} Richard B. Stewart, The Reformation of American Administrative Law, 88 HARV. L. REV. 1669, 1684-87 (1975).

policing capabilities.⁵¹

150

Despite making modest headway in the creation of beneficial national environmental regulations, agencies increasingly have been under siege—exemplified by the attempts of the Reagan and Bush administrations to eviscerate environmental agencies from within⁵² and by the continuing deregulatory mindset of the current Republican Congress.⁵³ In light of the prevalent "economic-growth-at-all-costs" attitude behind present congressional action, it is likely that the ability of the EPA to forward its original goals will be severely compromised.⁵⁴

In its struggle to avoid controversy, the EPA has sought refuge behind a wall of complex scientific conclusions. Regulatory judgments expressed as scientific findings are likely to be less visible and more immune from effective judicial or legislative review than decisions based solely on economic or political concerns.⁵⁵ This strategy can be discerned in the EPA's procedures for risk assessment and management and in the manner by which the EPA creates regulatory standards.

A close examination of these standards reveals that they are riddled with speculation and uncertainty and are not grounded on reliable scientific conclusions.⁵⁶ Yet, these standards continue to guide the courts in their preemption cases and to define the extent to which polluters may continue their toxic activities without public interference. Therefore, "pervasive" regulatory schemes based on pseudo-scientific conclusions must be supplemented by state tort actions to effectively protect the public health and welfare.

A. The Difficulty of Creating Standards: Uniformity v. Public Health

The creation of regulatory standards requires a great deal of scientific knowledge and data which is necessary for an understanding of the complex workings of the biosphere and surrounding ecosystems. To aid its task of defining these standards, the EPA has enlisted the aid of scientific experts to

^{51.} Id.

^{52.} See Saundra Saperstein, Bay Group Says Membership Soars 65 Percent, WASH. POST, Aug. 14, 1984, at B6. Notably, James Watt, Secretary of the Interior, and Anne Burford, Administrator of the EPA, both abused their positions to fulfill personal and political agendas. *Id.*

^{53.} See Cindy Skrzycki, Advice as a Growth Industry—In Regulatory Assault, GOP Has a Lot To Be Thankful For, WASH. POST, Dec. 2, 1994, at D1.

^{54.} See Daniel P. Jones, State May Lose \$17 Million in Environmental Funds, HARTFORD COURANT, Aug. 19, 1995, at A3 (reporting that, on July 31, 1995, lawmakers approved bill which cut EPA budget by 34 percent).

^{55.} Latin, *supra* note 5, at 130 (noting that EPA Carcinogen Guidelines allow EPA decisionmakers to use debatable outcome-oriented assumptions whenever they believe that weight of scientific evidence warrants the assumption, even when inconsistent with previous EPA practices and risk assessment principles widely held in scientific community). 56. *Id.* at 90.

interpret data and offer advice.⁵⁷ The results of this collaborative venture can be seen in a series of publications produced by the Science Advisory Board ("SAB") of the EPA. In 1986, the first comprehensive endeavor of this sort compared a broad range of environmental problems on the basis of human cancer, non-cancer, welfare, and ecological risks.⁵⁸

More recently, the SAB formed a special committee called the Relative Risk Reduction Strategies Committee ("RRRSC" or "Committee") to review the 1987 report and develop strategic options for reducing risk.⁵⁹ The RRRSC touted an impressive membership of thirty-nine "nationally-recognized" scientists, engineers, and managers with "broad experience in addressing environmental and health issues."⁶⁰

The RRRSC arrived at ten recommendations detailing the strategic options for reducing human health and ecological risks in its 1990 report.⁶¹ It did note, however, that its recommendations were largely policy-oriented and that nothing in the report should be construed as a recommendation for a specific policy option for reducing any specific environmental risk.⁶² Most importantly, the SAB recognized that, "[a]s long as there are large gaps in key data sets, efforts to evaluate risk on a consistent, rigorous basis or to define optimum risk reduction strategies necessarily will be incomplete, and the results will be uncertain."⁶³

This uncertainty has prompted various commentators to note that the scientific component of risk assessment can never remain completely free from

59. Id. at 5.

60. Id.

62. Id.

63. Id. at 8. The SAB continued:

Moreover, great uncertainty often is associated with the data that do exist. Exposure and toxic response models, the numbers used to quantify risks, and variation in individual susceptibility to risks are often highly uncertain. Without more and better data, conclusions about relative risk will be tenuous and will depend in large measure on professional judgement.

Id. (emphasis added).

^{57.} See Sheila Jasanoff, The Fifth Branch: Science Advisers as Policymakers (1990). 58. Reducing Risk, *supra* note 21, at 4 (1990) (discussing previous publication, UNFINISHED BUSINESS: A COMPARATIVE ASSESSMENT OF ENVIRONMENTAL PROBLEMS).

^{61.} Id. at 6. These recommendations suggested that the EPA should: (1) target its environmental protection efforts where they would result in the greatest risk reduction, (2) attach as much importance to ecological risk as to reducing human health risks, (3) improve risk research and analytical methods, (4) and (5) reflect risk-based priorities in strategic planning and budget processes, (6) make better use of "all the tools available" to reduce risk, (7) focus on prevention of pollution instead of reactive measures, (8) incorporate environmental considerations into broader aspects of public policy, (9) work to improve public understanding of environmental risks, and (10) develop improved analytical methods to value natural resources and account for long-term enviroeconomic effects. Id.

a relative value component.⁶⁴ Data and gaps in data are used by competing interest groups to further their own interests when they attempt to shape risk assessment and guidelines.⁶⁵ Such use and misuse of science in policymaking point out the enormous complexities of factoring scientific advice and expertise into regulatory policy.⁶⁶ "If the scientific claims that these bodies [committees like the SAB] are asked to evaluate are uncertain, insufficient, and inherently mixed with policy, then how can advisers selected for their technical expertise and political neutrality possibly certify them as valid science?"⁶⁷

The answer is that current regulatory practices and conclusions are simply not the result of pure science, but rather of scientific best-guesses.⁶⁸ Characterizing regulations as the result of purely scientific activity, however, reduces political accountability for these judgments and obscures underlying, and frequently inconsistent, policy rationales.⁶⁹ Some commentators have described this as subterfuge designed to accomplish de facto deregulation.⁷⁰ Others have noted that a typical consequence of requiring regulators to address currently unanswerable scientific questions is agency paralysis.⁷¹ A brief appraisal of a "science first" approach to regulation demonstrates the need for greater public input and protection through tort law.

1. Methodological Problems in the Scientific Approach

Significant debate over methodology employed to evaluate and compare risks has stymied efforts to generate a consistent approach to correcting environmental problems.⁷² On a technical level, experts disagree over the extrapolative models, statistical methods, and cost-benefit comparisons used to evaluate health risks in the environment.⁷³ Furthermore, experts do not even agree on appropriate exposure baselines for health risks, some claiming that the harms generated by natural risks outweigh the harms that stem from man-made

^{64.} See Robert F. Blomquist, The EPA Science Advisory Board's Report on "Reducing Risk," 22 ENVTL. L. 149, 181 n.139 (1992); see generally JASANOFF, supra note 57, at 1-18 (1990).

^{65.} Blomquist, supra note 64, at 181 n.139.

^{66.} Id. at 181.

^{67.} JASANOFF, supra note 57, at 8-9.

^{68.} See Latin, supra note 5, at 94 ("Risk assessors often respond to scientific uncertainties by adopting conservative safety-oriented positions on some important issues while they use best-current-scientific-guess, middle-of-the-range, methodological-convenience, or least-cost treatments on other material issues.").

^{69.} Id. at 93-94.

^{70.} Id. at 94-95 (citing Dr. J. Donald Millar, former Director of the National Institute of Occupational Safety and Health, and Vice President Al Gore).

^{71.} Id. at 106.

^{72.} See Jimmie Powell, Defining the Undefinable: What Risks Are Acceptable?, ENVTL. FORUM, Nov.-Dec. 1988, at 22, 22.

^{73.} See Latin, supra note 5, at 92.

risks.⁷⁴ Ultimately, the debate focuses on where the risks of uncertainty in scientific assessment should be allocated.⁷⁵

The development of procedures to establish national guidelines for carcinogen exposure provides a good example of these problems. Because of the complex and poorly-understood mechanisms which stimulate oncogenic processes, a perfect model for testing existing or potential carcinogens has not yet been created.⁷⁶ Data on low-level exposure to known or suspected carcinogens "cannot be measured directly either by animal experiments or by epidemiological studies."⁷⁷ As a result, scientists and regulators must extrapolate from high-level exposure data in an attempt to predict what low-level human exposures will create a significant health threat.⁷⁸

Although a number of extrapolative models exists, none has been widely accepted.⁷⁹ The results of using one model as compared to another may vary by several orders of magnitude, and the range of uncertainty has been compared to "not knowing whether one has enough money to buy a cup of coffee or pay off the national debt."⁸⁰ Obviously, the selection of one particular model may generate controversy depending on the severity of the regulations promulgated under the chosen model.

Administrative endorsement of certain toxic-exposure risk models reflects political and economic policy choices which have significant impact in terms of potential health effects and regulatory efficiency. For instance, during the Carter Administration, the EPA adopted carcinogen exposure guidelines which estimated minimum safety levels using a very conservative extrapolation model.⁸¹ This policy maximized safety in circumstances of persistent uncertainty but might have produced overly stringent regulation by placing the costs of uncertainty and risk of error on industry.⁸²

The Reagan Administration changed the exposure guideline policies, requiring that EPA experts assess risks independently on the weight of available evidence for each potentially regulated substance.⁸³ Under this approach,

78. See Latin, supra note 5, at 98.

82. Latin, supra note 5, at 99.

^{74.} See Huber, supra note 45, at 291 ("The natural state of the world is not safety but abundant (though often natural) hazard Nature, the greatest risk producer of all, cannot be made to pay for her abundant production of risk.").

^{75.} See Latin, supra note 5, at 125-26.

^{76.} See generally STANLEY L. ROBBINS ET AL., THE PATHOLOGIC BASIS OF DISEASE (1994).

^{77.} EPA Guidelines for Carcinogen Risk Assessment, 51 Fed. Reg. 33,992, 33,997 (1986).

^{79.} Id.

^{80.} Id. at 92 (citing Cothern et al., Estimating Risk to Human Health, 20 ENVTL. SCI. & TECH. 111, 113-15 (1986)).

^{81.} SeeOSHA, Identification, Classification and Regulation of Potential Occupational Carcinogens, 29 C.F.R. § 1900 (1981).

^{83.} See EPA Guidelines for Carcinogen Risk Assessment, 51 Fed. Reg. 33,992 (1986).

regulated interests are encouraged to present arguments in favor of the adoption of certain extrapolative models and data which reinforce their own positions.⁸⁴ As a result, agencies may delay regulation of potential toxins for years until the "weight of evidence" allows sufficiently precise estimation of exposure hazards.⁸⁵ Agencies are forced to expend valuable resources to review substances on a caseby-case basis.⁸⁶ Additionally, prolonged exposure to these unregulated toxins in the pursuit of exact standards may ultimately create disastrous health problems which might not have arisen under a more cautious model.⁸⁷

Depending on the extrapolation model chosen, the interpretation of the same data may result in a totally different conclusion. A recent example of this is a review of the EPA's dioxin exposure standards which debates the adequacy of the statistical model used by the EPA to measure the toxic effects of dioxin on biological processes.⁸⁸ This study contends that the particular biochemical changes studied by the EPA are not, per se, the result of toxic effects of dioxin exposure.⁸⁹

This last point underscores the unpredictable nature of pollution exposure which creates problems affecting the accuracy of data. For example, the human health effects of toxins may take decades to become apparent, and "welldesigned" studies of previous human exposure are rarely available.⁹⁰ Toxins may also have widely varied effects on exposure victims which are not easily grouped or quantified because too many variables preclude accurate estimation.⁹¹ Experts may also disagree as to which particular biological process reflects toxic exposure.⁹² These problems are also present in animal studies which regulatory experts may or may not consider when setting minimum safety thresholds for human exposure.⁹³

2. Procedural Concerns

In spite of obvious flaws, the lengths to which the SAB's various subcommittees went to analyze environmental risks lend some credence to their conclusions. As already indicated, the RRRSC was composed of an impressive mixture of scientists, engineers, and academicians—representing public, business,

^{84.} See Latin, supra note 5, at 100.

^{85.} Id. at 126-27.

^{86.} Id. at 128-29.

^{87.} Id. at 128.

^{88.} Rory B. Conolly, U.S. EPA Reassessment of the Health Risks of 2,3,7,8-Tetrachlorodibenzo-pdioxin (TCDD), CIIT ACTIVITIES, Dec. 1994, at 1, 5-7.

^{89.} Id. at 2-4.

^{90.} Latin, supra note 5, at 102.

^{91.} Id. at 100-03.

^{92.} See Conolly, supra note 88, at 5.

^{93.} Latin, supra note 5, at 103-05.

and governmental interests.⁹⁴ The RRRSC and its various subcommittees held three working sessions and twelve public meetings before producing their recommendations.⁹⁵ Amazingly, the Committee was able to reach a consensus, prioritize the environmental ills of the United States, and publish its findings in just over a year and a half.⁹⁶

Although nothing in *Reducing Risk* indicates how much dissension and controversy occurred between committee members, behavioral studies of groupdynamics in general indicate that conclusions reached in this manner are not necessarily the best. In the early 1970s, Dr. Irving L. Janis coined the term "groupthink," describing the process by which people in committees or groups tend to suppress divergent views and engage in less critical and objective thinking in an effort to reach consensus.⁹⁷ More recent studies of group behavior indicate that a variety of factors may contribute to good or bad decisions but that the results are not as dramatic as suggested by Janis's studies.⁹⁸ Regardless, the conclusions reached by these studies should encourage more scrutiny of group policy recommendations like those of the RRRSC.⁹⁹

3. Congress and Risk Assessment

For better or worse, the present Congress is wholeheartedly embracing the cost-benefit model of risk assessment and prioritization. Several bills presently under development in the House of Representatives and Senate deal with regulatory "reform,"¹⁰⁰ and one specifically proposes the imposition of cost-

100. S. 343, 104th Cong., 1st Sess. (1995) (introduced in Senate as "Comprehensive Regulatory Reform Act of 1995" and presently on floor of Senate); H.R. 450, 104th Cong., 1st Sess. (1995) (proposed as "Regulatory Transition Act of 1995," but later became part of S. 219).

^{94.} See REDUCING RISK, supra note 21, at iv (listing all RRRSC members).

^{95.} Id. at 5.

^{96.} Id. at ii.

^{97.} See IRVING L. JANIS, GROUPTHINK: PSYCHOLOGICAL STUDIES OF POLICY DECISIONS AND FIASCOES 4 (2d. ed. 1983); see also Clark McCauley, The Nature of Social Influence in Groupthink: Compliance and Internalization, 57 J. PERSONAL AND SOC. PSYCHOL. 250, 251 (1989) ("Groupthink is concurrence-seeking that interferes with adequate consideration of decision alternatives, which in turn leads to poor decisions.").

^{98.} See Decision Making: How Presidents Think, PSYCHOL. TODAY, Jan.-Feb. 1993, at 8, 8 (discussing recent study by Berkeley social psychologist Philip Tetlock).

^{99.} Blomquist, supra note 64, at 186. Blomquist notes that:

While EPA should unquestionably provide ample opportunity for public comment and input before accepting or implementing any of the SAB recommendations as a matter of public policy, in light of the weight that will be accorded the SAB *Reducing Risk* analysis in future policy deliberations, it would have been wise to have provided public input at the earlier stage of scientific and policy negotiations.

Id.

benefit risk assessment procedures for all federal regulations.¹⁰¹ If this bill becomes law, it would require all federal regulatory programs to perform extensive cost-benefit analyses of comparative risks and risk management choices before agencies devote funds to regulatory programs or set regulatory priorities.¹⁰² As a result, critics have attacked the bill for making economics one of the primary concerns of regulatory actions.¹⁰³

The new risk assessment bill incorporates many of the recommendations in *Reducing Risk*, citing as its purposes: (1) presentation of the most scientifically objective and unbiased information for sound regulatory decisions and public education, (2) full consideration and discussion of relevant data and potential methodologies, (3) explanation of significant choices in the assessment process, and (4) improved consistency in executive branch preparations of risk assessments and characterizations.¹⁰⁴ Though the bill does not include any express preemption language, its enactment would strengthen inferred preemption arguments because all agencies would have to perform a fairly exhaustive cost-benefit analysis before implementing any programs.¹⁰⁵ Whether this bill would change preemption jurisprudence remains to be seen.

B. Excluding the Public Voice from Environmental Affairs: Public v. Expert Risk Assessment

The notion that experts—whose judgments inform both lawmakers and courts—do not agree on key points, regardless of the certainty of scientific data, is troubling for a variety of reasons. First, public opinion, often dismissed as "irrational" or unworkable by technocrats and policymakers alike,¹⁰⁶ is being excluded in favor of scientific assessment of risk, which is not an entirely

104. H.R. 1022, 104th Cong., 1st Sess., § 104 (1995).

^{101.} H.R. 1022, 104th Cong., 1st Sess. (1995) (entitled "Risk Assessment and Cost-Benefit Act of 1995" and has become part of H.R. 9, 104th Cong., 1st Sess. (1995)).

^{102.} Id. § 104.

^{103.} See Jessica Matthews, Horror in the House, WASH. POST, Mar. 5, 1995, at C7 ("If [the risk-reduction bill] becomes law, cost-effectiveness and 'flexibility' (left undefined for the courts to figure out) will replace" statutes such as the Clean Air Act and Clean Water Act that make "health, safety, or environmental protection the guiding standard.").

^{105.} Moreover, the bill specifically mentions that the scientific cost-benefit procedures will apply to "[a]ny proposed or final permit condition placing a restriction on facility siting or operation under Federal laws administered by the EPA or the Department of the Interior." *Id.* § 103(b)(2)(B)(iii). The bill also applies to regulatory actions which place new substances on official lists of carcinogens, toxic, or hazardous substances, or place a new health-effects value on the list. *Id.* § 103(b)(2)(B)(v).

^{106.} See Warren T. Brookes, The Wasteful Pursuit of Zero Risk, FORBES, Apr. 30, 1990, at 160, 161 (describing public perception of risk as emotional, and based on misinformation, disinformation, and the faulty use of statistics); see also ALONZO PLOUGH & SHELDON KRIMSKY, ENVIRONMENTAL HAZARDS 303 (1988) (concluding that studies in risk perception reinforce conception that rationality and democracy are antagonistic to one another).

superior approach to addressing environmental problems. Second, preemptive federal laws based entirely on the value judgments and "best guesses" of experts would further erode public trust in legitimate regulatory attempts to deal with pollution and might exacerbate obstructionist public sentiments toward any government interference, regardless of the benefits federal regulation might provide.

Admittedly, public perception of risk often differs markedly from a scientific, probabilistic determination of risk.¹⁰⁷ Critics attribute this difference to the increased role that various psychological effects play in public risk assessment and to the absence of these factors in the evaluation of the same risks using the laws of probability.¹⁰⁸ The key problem faced by policymakers, therefore, is the integration of valid public concerns and scientific expertise to satisfy the goals of efficiency and consistency in environmental policy without destroying core democratic values.¹⁰⁹

The degree of participation which the general public and scientific experts should exercise in the formation of environmental policy is yet another source of contention among scholars and experts alike.¹¹⁰ Suggestions to incorporate public input in the regulatory process, such as the use of "citizen panels" to inform decisionmakers of public concern, have yielded positive results and improved public trust in official decisions.¹¹¹ Unfortunately, not all federal environmental laws mandate the use of such panels.

In reality, existing federal environmental laws do not afford meaningful opportunities for public participation.¹¹² Under current procedures, it is unlikely that the public will be willing to sit vigilantly through long technical public hearings on proposed regulations or even to think to consider the ramifications

[T]oxic tort cases are about redefining our public morality for a new era in which we must confront the troubling truth that we do not fully comprehend the relationships between the things that we have made and our health and well-being.

... [Toxic tort cases] involve basic controversies over evolving public values; these are fundamental political issues that experts have no greater right to resolve than anyone else in a democratic society.

- 111. See SUSAN G. HADDEN, A CITIZEN'S RIGHT TO KNOW 208-09 (1989).
- 112. See supra note 40 and accompanying text.

^{107.} See Frank B. Cross, The Public Role in Risk Control, 24 ENVTL. L. 887, 888 (1994) (analyzing difference between public and probabilistic determinations of risk).

^{108.} Critics have postulated that public perception of risks is heavily influenced not only by cognitive factors, but also by selective media exposure and misinformation. *Id.* at 897-912.

^{109.} See Susan G. Hadden, Public Perception of Hazardous Waste, 11 RISK ANALYSIS 47, 51 (1991) (suggesting that government must find way to reach compromise position because it is impossible to change or ignore public opinion).

^{110.} Cross, supra note 107, at 894-95, 894 n.28. See also E. Donald Elliot, The Future of Toxic Torts: Of Chemophobia, Risk as a Compensable Injury and Hybrid Compensation Systems, 25 HOUS. L. REV. 781, 782 (1988):

of proposed federal laws before they suffer an injury and discover that they have no cause of action. Therefore, until lawmakers create a better procedure to incorporate both public concerns and valid science into the development of federal regulations, the courts must handle the harms which inevitably slip through the regulatory cracks.

C. Addressing Immediate Environmental Problems: The Adequacy of the Judicial System

While matters of public health and safety have been associated traditionally with state police powers,¹¹³ critics assert that state judicial review of environmental harms without regard to regulatory standards does more harm than good.¹¹⁴ The general argument for excluding courts from the regulatory process involves a few central premises: (1) experts and regulatory agencies are better suited to perform the cost-benefit analysis necessary to establish progressive risk assessment and management strategies,¹¹⁵ (2) judicial intervention and regulation will stifle new beneficial technologies and mirror inaccurate public bias toward "public risks,"¹¹⁶ and (3) new technologies are inevitably safer than the old or natural alternatives they replace.¹¹⁷

As discussed, expert environmental risk assessment is typically not an unbiased nor scientifically certain process, and it may not adequately reflect valid public concerns.¹¹⁸ Though regulatory agencies may appear facially competent to make carefully the best risk-reducing choices, their insights may often depend more on guesswork than on science. The chore of regulating pollution must not be their exclusive domain.¹¹⁹

The remaining critical argument focuses on the wisdom of allowing judicial intervention in the regulatory process: Is state tort law compatible with

^{113.} See, e.g., Rice, 331 U.S. at 230; Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926).

^{114.} See Huber, supra note 45, at 278 (suggesting that present judicial role hinders progress towards healthier and safer environment).

^{115.} Id. at 333.

^{116.} *Id.* at 277 (defining public risks as "threats to human health or safety that are centrally or mass-produced, broadly distributed, and largely outside the individual risk bearer's direct understanding and control").

^{117.} See id.

^{118.} See generally Cross, supra note 107.

^{119.} In his remarkably prophetic book Future Shock, Alvin Toffler writes:

[[]T]echnological questions can no longer be answered in technological terms alone. They are political questions.... We cannot permit them to be dictated by short-run economic considerations alone. We cannot permit them to be made in a policy vacuum. And we cannot delegate responsibility for such decisions to businessmen, scientists, engineers or administrators who are unaware of the profound consequences of their own actions.

ALVIN TOFFLER, FUTURE SHOCK 386-87 (1970).

federal environmental objectives of risk reduction? The central purposes of tort law are to allocate the losses arising out of human activities and to afford compensation for injuries sustained by one person as the result of the conduct of another.¹²⁰ Even critics admit that the judicial system is well-suited to resolving "easily ascertained," antisocial, and injurious conduct.¹²¹ When environmental harms are the subject of judicial review, however, these critics accuse courts of making regressive risk choices which hinder the overall effectiveness of riskreducing strategies forwarded by agencies.¹²² These accusations fail to consider other goals of the tort system and overstate the importance of showing absolute deference to federal regulatory schemes.

Individuals generally do not sue for every public harm they suffer. People who sue polluters have severe and demonstrable harms,¹²³ and forcing polluters to pay for these harms appropriately internalizes the actual costs incurred by the polluting enterprise. Courts are appropriate forums for the amelioration of obvious harms; the fact that verdicts which compensate plaintiffs have a regulatory effect is incidental.

While a national environmental policy based on accurate scientific information may result in the overall reduction of public risk,¹²⁴ actionable environmental harms are typically discrete and local by nature. Additionally, surveys on the location of polluting activities indicate that a disproportionate number of poor and minority communities are host to these undesirable enterprises.¹²⁵ The judicial system is well-suited to remedy this inequitable situation. Allowing federal legislation to preempt state tort law would thus have a discriminatory effect; it would force the communities most affected by polluting activity to bear the costs which are more appropriately borne and distributed by the polluting industry.

Another advantage of the tort system is the relative speed with which immediate environmental harms are addressed.¹²⁶ Whereas legislation dealing

^{120.} See W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 2 (5th ed. 1984).

^{121.} Huber, supra note 45, at 331.

^{122.} Id. at 335.

^{123.} In fact, plaintiffs will not have standing to sue unless they are the victims of clearly demonstrable "private" injury. *See* Lujan v. National Wildlife Fed'n, 497 U.S. 871, 898-99 (1990) (holding that plaintiffs were unable to demonstrate personal harm entitling them to sue agency under federal statutory scheme).

^{124.} See Huber, supra note 45, at 279 (arguing that greater private safety may be achieved by greater acceptance of public risk).

^{125.} See Robert D. Bullard, Dumping in Dixie: Race, Class, and Environmental Quality 1-6 (1990).

^{126.} That is not to say that industry will not use every means at its disposal to wear plaintiffs down by attrition—dragging lawsuits out over years to deplete plaintiffs' resources, as seen in notable mass tort cases involving asbestos or medical products like the Dalkon Shield. See Jack B.

with specific environmental problems may take years to enact and implement, court actions such as simple nuisance cases can either compensate pollution victims in the interim or enjoin the polluting activity altogether. Immediate attention to environmental harms becomes increasingly important as industry escalates its production of new chemical compounds which are not regulated until they are proven to cause damage to human health and the environment.¹²⁷

In 1984, the National Research Council ("Council") noted that toxicity data was not available for over eighty percent of the 48,000 commonly used chemical substances in commercial use.¹²⁸ The Council also indicated that 65,725 of the chemical compounds in existence at that time were sources of possible toxic concern.¹²⁹ This data does not consider the potentially hazardous interaction of these compounds in the environment when they are dumped or discharged. Additionally, under EPA guidelines, the regulated industries seeking agency approval usually perform the studies to determine the potential toxicity of any compound.¹³⁰ This "fox-in-charge-of-the-henhouse" system of regulation does not generate much faith in the process and implicitly invites the additional safeguard of tort liability—in case one or two hazardous compounds manage to avoid regulatory scrutiny before they wreak havoc.

By far, the largest source of dissension between advocates and opponents of court intervention concerns the effect which tort actions have on the invention of new, risk-reducing technology. Opponents of court regulation point to such examples as the elimination of vaccine production as the result of tort liability and the resulting difficulties manufacturers had in obtaining adequate insurance.¹³¹ In theory, they claim that this sort of liability will lead to the destruction of all market incentive to produce any new, potentially safer vaccines.¹³²

This argument failed to convince the Supreme Court in Hillsborough

129. Id.

132. Id. at 289-90.

Weinstein, Ethical Dilemmas in Mass Tort Litigation, 88 Nw. U. L. REV. 469, 479 (1994). 127. See Raymond A. Bendele, Safety Assessment Programs for U.S. Regulatory Agencies: A Perspective of Requirements and Compliance, 22 TOXIC PATHOLOGY 95, 102 (1994) (detailing EPA's requirements for new chemical substances under Toxic Substances Control Act).

^{128.} See NATIONAL RESEARCH COUNCIL, TOXICITY TESTING: STRATEGIES TO DETERMINE NEEDS AND PRIORITIES (1984).

^{130.} See Bendele, supra note 127, at 102-03. Proposed bills which would have banned the use of known toxins or required industry to reveal the potential effects and chemical structures of new compounds under a community right-to-know act have consistently been met with hostility by regulated interests. See John H. Sheridan, Getting Tougher with Toxics, INDUSTRY WEEK, Feb. 17, 1992, at 46, 46.

^{131.} Vaccines, while eliminating diseases such as whooping cough and polio, may have adverse health effects on some recipients. For instance, the American Medical Association reported risk statistics for a variety of vaccines which ranged from 1 in 312,500 (risk of brain damage from whooping cough vaccine) to 1 in 3.2 million (risk of paralysis from polio vaccine). Some manufacturers have ceased to produce vaccines because of onerous tort liability. *See* Huber, *supra* note 45, at 285 & n.35, 286-90.

County v. Automated Medical Laboratories, Inc.,¹³³ where the Court held that state regulation of plasmapheresis centers was not preempted by federal regulation. In that case, plasmapheresis centers complained that compliance with the additional requirements of state regulations would "present a serious obstacle to the federal goal of ensuring an 'adequate supply of plasma."¹³⁴ The centers bolstered their argument by pointing to the increased financial burdens necessitated by compliance and speculated that this would have the effect of reducing the number of plasma centers.¹³⁵

The Court affirmed the lower court's finding that the centers' cost-ofcompliance estimates were "clouded with speculation" and noted that, even if the number of plasma centers were reduced, that effect would not necessarily interfere with the federal goal of maintaining an adequate supply of plasma.¹³⁶ *Hillsborough County*, when applied to the preemption arguments of industrial polluters, suggests that industries must produce more than speculative claims that state tort law would impede federal objectives by driving the industries out of business.

The Court also rejected preemption arguments made by the nuclear industry in *Pacific Gas & Electric Co. v. State Energy Resources Conservation & Development Commission.*¹³⁷ In that case, the California Public Resources Code allowed the State Energy Resources Conservation and Development Commission to determine the adequacy of storage facilities for spent nuclear fuel on a case-by-case basis.¹³⁸ The Court held that the state regulations could harmoniously coexist with federal reactor-safety standards because the regulations focused on economic concerns surrounding nuclear waste disposal.¹³⁹ Though these state regulations may have had the effect of dampening the existing nuclear technologies, it allowed for the development of new nuclear waste disposal technology which could reduce concerns about the potentially high costs of storing radioactive wastes.¹⁴⁰

More recently, in the milestone case of *Silkwood v. Kerr-McGee Corp.*,¹⁴¹ the Supreme Court held that the pervasive regulatory scheme of the Price-Anderson Act, a federal statute that granted the Nuclear Regulatory Commission

141. 464 U.S. 238 (1984) (holding that appropriate test to determine scope of preemption concerning radiation injuries was whether there is irreconcilable conflict between federal and state standards or whether imposition of state standard would frustrate objectives of federal law).

^{133. 471} U.S. 707 (1985).

^{134.} Id. at 720.

^{135.} Id.

^{136.} Id.

^{137. 461} U.S. 190 (1983).

^{138.} Id. at 203.

^{139.} Id. at 212.

^{140.} Id. at 214.

exclusive authority to regulate safety matters, does not preempt state tort punitive damages for illegal conduct.¹⁴² In so doing, the Court noted that there was no obvious indication that Congress intended to preclude state tort remedies and that it would be difficult to believe that Congress would remove all means of judicial recourse for personal injuries without comment.¹⁴³ To date, despite the holdings of *Pacific Gas* and *Silkwood*, California's nuclear industry shows no signs of going out of business as a result of its tort liability.

Finally, in International Union, United Auto, Aerospace & Agricultural Implement Workers of America, UAW v. Johnson Controls, Inc.,¹⁴⁴ the Court discussed the threat of tort liability posed by potential fetal injury claims. In that case, the Court held that Title VII prohibited employers in the lead industry from imposing discriminatory regulations on female employees under the guise of protecting fetal health.¹⁴⁵ The industry complained that it would still be vulnerable to tort suits from employees despite its compliance with federal regulations. Although the Court did not rule on the viability of this specific argument, it did note that, "[w]ithout negligence, it would be difficult for a court to find liability on the part of the employer" if it adequately warned potential mothers of the hazards of fetal injury from workplace lead contamination.¹⁴⁶

When these cases are viewed in conjunction with one another, it is clear that courts are interested in resolving inequitable situations in a just and evenhanded manner—contrary to the notion that tort damages are "spinning like a top that . . . runs wild in our country."¹⁴⁷ This "distributive justice," in effect, acts to balance an imperfectly functioning market by forcing industries to internalize the real costs of doing business—whether damage from environmental pollution or the health costs of a hazardous product.¹⁴⁸ Industries may then distribute these costs to consumers.

Therefore, assuming that polluting activity will still create environmental and health hazards, removing tort liability would subsidize the continuing harm. At this point, the vaccine argument buckles: the public beneficiaries of vaccine technology must be willing to compensate the one-in-a-million victim who reacts

^{142.} Id. at 252.

^{143.} Id. at 251; see also United Constr. Workers v. Laburnum Corp., 347 U.S. 656, 663-64 (1954).

^{144. 499} U.S. 187 (1991).

^{145.} Id. at 211.

^{146.} Id. at 208.

^{147.} Inside Business (CNN television broadcast, Feb. 26, 1995) (comment on punitive damages by Victor Schwartz, representative of Product Liability Coordinating Council, a business group seeking limits on damage awards) [hereinafter Inside Business].

^{148.} See PLATER ET AL., supra note 19, at 49 (discussing economic correction of externalities through privatization of common resources); see also H. VARIAN, INTERMEDIATE MICROECONOMICS (1987).

adversely to the drug.¹⁴⁹ Removing a victim's right to sue for injuries forces her to bear unjustly the entire cost of mandatory vaccination for all who paid an artificially low price for the program's benefit. Though personal sacrifice for public welfare is a noble act, a democratic society must ensure that this choice remains voluntary. The same holds true for communities that host polluting industries—such as coal-burning power generation centers, hazardous waste storage facilities, and oil refineries.

Interestingly enough, the SAB recommended market incentives as one of six strategic methods for reducing risks.¹⁵⁰ State tort liability is one of the most potent market forces, reflected in the arguments of its advocates and opponents.¹⁵¹ It should come as no surprise that as the costs of polluting activities increase as the result of lawsuits, other more expensive "eco-friendly" alternatives grow more attractive.

Finally, some commentators remind us that "our legal system is not entirely goal-oriented. It embodies certain basic constitutional ideals, such as preserving and promoting equal access to justice, human liberty, [and] property rights. These values reject an entirely instrumental view of law dominated by utilitarian assessments of law's efficacy in achieving various goals."¹⁵² Federal lawmakers should factor these frequently forgotten values into their cost-benefit calculus before they act to preempt state tort remedies in any legislative scheme. To summarize: "[U]nderstanding [the] limitations of science and the social interpretation of science, combined with a too often overlooked appreciation of how a democracy shapes its morality, will better serve the ideal of achieving a democratically acceptable approach to the difficult questions involved in doing justice."¹⁵³

D. Tort Remedies as Property Interests: Due Process and the Fifth Amendment

Any congressional attempt to supplant state law remedies with inadequate federal statutory schemes of recovery, either expressly or impliedly in the name of "regulatory uniformity," should be seen as an intrusion on one of the most important rights of our citizens: the right of redress in the courts. In *Chambers*

^{149.} Another interesting note: "The National Center for State Courts ... reports that business-tobusiness lawsuits far outnumber the suits filed by individuals seeking to right a wrong." *Inside Business, supra* note 147.

^{150.} REDUCING RISK, *supra* note 21, at 15 ("A key to reducing environmental risk is to ensure that consumers and producers face the full costs of their decisions. Economic incentives can often help accomplish this end.").

^{151.} See Inside Business, supra note 147.

^{152.} See Alan Kanner, Continuity and Change in Toxic Tort Litigation, C855 ALI-ABA 651, 671 (1992) (footnotes omitted).

^{153.} Id. at 674-75.

v. Baltimore & O.R.R.,¹⁵⁴ the Supreme Court stated: "The right to sue and defend in the courts is the alternative of force. In an organized society it is the right conservative of all other rights, and lies at the foundation of orderly government. It is one of the highest and most essential privileges of citizenship."¹⁵⁵

Furthermore, the powerful remedies afforded by state tort causes of action are not only an effective means of alleviating environmental harms suffered by the public, but they have also been recognized as property rights¹⁵⁶ protected by the Due Process and Takings Clauses.¹⁵⁷ The right of judicial access affords citizens a "meaningful opportunity to be heard"¹⁵⁸ and protects their ability to redress effectively personal injuries. The ability to bring a cause of action for harms suffered at the hands of polluting industries should be seen as a fundamental right inherent in the concept of ordered liberty and as a right that is necessary to protect other expressly defined constitutional rights.¹⁵⁹

If congressional preemption of state tort law may be seen as a taking of property requiring due process, are citizens afforded enough procedural or substantive "process" before federal law preempts their ability to sue for injury? To answer this question, courts must determine whether the government action: (1) has a reasonable relation to a proper legislative purpose, (2) is neither arbitrary nor discriminatory, and (3) rationally advances a reasonable and identifiable government objective.¹⁶⁰ The courts also must examine the degree of the private burden suffered by an individual as a result of the government regulation.¹⁶¹ Assuming that Congress has the authority to create environmental protection laws and that such laws are reasonably related to legislative police powers to protect health, safety, and welfare, only the "arbitrary and

^{154. 207} U.S. 142 (1907).

^{155.} Id. at 148.

^{156.} See Martinez v. California, 444 U.S. 277, 281-82 (1980) (noting that "[a]rguably" a state tort claim is a "species of 'property' protected by the Due Process Clause"); see also Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 315 (1950) (holding that a cause of action is species of property protected by Fourteenth Amendment's Due Process Clause).

^{157.} U.S. CONST. amend. V; see Hudson v. Palmer, 468 U.S. 517, 539-40 (1984) (O'Connor, J., concurring) (stating that adequacy and availability of state tort actions have always been issues under Takings and Due Process Clauses).

^{158.} Boddie v. Connecticut, 401 U.S. 371, 379-80 (1971) (interpreting Due Process Clause as preventing states from denying potential litigants use of established adjudicatory procedures when such an action would be equivalent to "denying them an opportunity to be heard upon their claimed right[s]"); *see also* Logan v. Zimmerman Brush Co., 455 U.S. 422, 430 n.5 (1982) ("[H]aving made access to the courts an entitlement or a necessity, the State may not deprive someone of that access unless the balance of state and private interests favors the government scheme.").

^{159.} This argument to extend implicit constitutional rights is the same used by the Court in Griswold v. Connecticut, 381 U.S. 479 (1965) (deeming that certain rights lie within penumbra of expressly listed fundamental rights).

^{160.} See Zygmunt J. Plater & William L. Norine, Through the Looking Glass of Eminent Domain,
16 B.C. ENVTL. AFF. L. REV. 661, 707-12 (1989).
161. Id.

discriminatory" and private burden inquiries remain.

In the case of *Martinez v. California*,¹⁶² the parents of a fifteen-year-old murder victim attempted to sue the state on the basis that a statute which conferred tort immunity on parole officials was a taking of private property in violation of due process. The Court admitted that "[a]rguably, the cause of action for wrongful death that the State has created is a species of 'property' protected by the Due Process Clause."¹⁶³ The Court continued, stating that "the State's interest in fashioning its own rules of tort law is paramount to any discernible federal interest, except perhaps an interest in protecting the individual citizen from state action that is wholly arbitrary or irrational."¹⁶⁴

Though the Court did not find a violation of due process in that case, it did lay the foundation for future decisions.¹⁶⁵ In fact, the Court found that due process requirements could be violated when "notice given through newspaper publication" deprived beneficiaries of every cause of action they might have against a trust company for improper management of the common fund.¹⁶⁶ "Such a result was impermissible unless constitutionally adequate notice and hearing procedures were established before the settlement process went into effect."¹⁶⁷ To reinforce its conclusion, the Court noted that it "traditionally has held that the Due Process Clauses protect civil litigants who seek recourse in the courts, either as defendants hoping to protect their property or as plaintiffs attempting to redress grievances."¹⁶⁸

This precedent suggests that federal courts should seriously consider whether present methods of soliciting "public comment" on proposed environmental regulations would ever fulfill due process, especially if such

164. Id.

[T]here "is a rational relationship between the state's purposes and the statute." In fashioning state policy in a "practical and troublesome area" like this . . . the California Legislature could reasonably conclude that judicial review of a parole officer's decisions "would inevitably inhibit the exercise of discretion." That inhibiting effect could impair the State's ability to implement a parole program designed to promote rehabilitation of inmates as well as security within prison walls by holding out a promise of potential rewards. Whether one agrees or disagrees with California's decision to provide absolute immunity for parole officials in a case of this kind, one cannot deny that it rationally furthers a policy that reasonable lawmakers may favor. As federal judges, we have no authority to pass judgment on the wisdom of the underlying policy determination.

Id. at 282-83 (footnotes and citations omitted).

^{162. 444} U.S. 277 (1980).

^{163.} Id. at 281-82.

^{165.} Id. The Court's due process analysis concluded:

^{166.} Logan, 455 U.S. at 429 (citing Mullane, 339 U.S. at 311).

^{167.} Id.

^{168.} Id.

regulations, designed to protect human and environmental welfare, act to deprive the public of the means of protecting themselves. This incongruous method of attaining environmental health and welfare, when considered with the abysmally random and subjective methods regulators use to design environmental regulations, could easily be seen as arbitrary or irrational government action. Considering the ultimate burden pollution victims will bear at the hands of such measures, court remedies must be preserved to satisfy minimum due process requirements.

Deprivation of a citizen's ability to seek redress for personal injuries in state courts may rise to the level of a taking of property that warrants just compensation. Justice O'Connor, in her concurring opinion in *Hudson v.* Palmer, ¹⁶⁹ stated:

The Constitution requires the government, if it deprives people of their property, to provide due process of law and to make just compensation for any takings. The due process requirement means that Government must provide . . . the remedies it promised would be available. Concomitantly, the just compensation requirement means that the remedies made available must adequately compensate for any takings that have occurred.¹⁷⁰

By identifying the Takings Clause as a possible constitutional basis for compensating victims of "official" or state-generated torts, Justice O'Connor's approach suggests that a state's refusal to compensate the victims of its torts on the grounds of sovereign immunity should be considered a taking of private property.¹⁷¹ This line of reasoning could be logically extended to afford protection to tort victims' property interests in state tort remedies.

*Ruckleshaus v. Monsanto Co.*¹⁷² supports this idea. In *Ruckleshaus*, Monsanto sued to recover damages for the taking of the company's intellectual property.¹⁷³ Monsanto claimed that the mandatory disclosure provisions in the Federal Insecticide, Fungicide, and Rodenticide Act¹⁷⁴ forced the company to reveal trade secrets, thereby effecting a taking of this intellectual property without

^{169. 468} U.S. 517, 537-40 (1984).

^{170.} *Id.* at 539 (footnotes omitted) (finding that claimant must either avail himself of remedies guaranteed by state law or prove that available remedies are inadequate when claiming that property deprivation constitutes "taking").

^{171.} Jack M. Beermann, Government Official Torts and the Takings Clause: Federalism and State Sovereign Immunity, 68 B.U. L. REV. 277, 283 (1988).

^{172. 467} U.S. 986 (1984).

^{173.} Id. at 998-99.

^{174.} Federal Insecticide, Fungicide, and Rodenticide Act, Pub. L. No. 92-516, 86 Stat. 987 (1972) (codified as amended at 7 U.S.C. §§ 136-136y (1988)).

just compensation.¹⁷⁵ The Court classified the trade secrets as property rights "that [were] created and . . . defined by existing rules or understandings that stem from an independent source such as state law."¹⁷⁶ The Court's analysis also focused on the characteristics shared by intangible trade secrets and other tangible forms of property rights, such as the ability to assign the interest, form the res of a trust, or pass the interest to a trustee in bankruptcy.¹⁷⁷ Finally, the Court noted that it recognized other intangible property rights as deserving of protection of the Takings Clause although such property did not conform to the traditional notion of property.¹⁷⁸

The property analogy is easily extended to the interests a tort victim possesses in state tort remedies. The ability to bring a cause of action is specific to the injured party and is generally protective of some other property right which is demonstrably harmed. The ability to sue, however, may be transferred or assigned, such as when insurance companies are subrogated to the rights of policy claimants on the basis of contract law. The interest a person has in pursuing a state tort claim may also be subjected to a variety of theoretical analyses with a high degree of success.¹⁷⁹

The Court in *Ruckleshaus* also focused on three other questions concerning the property interest: (1) Did the government act effect a taking of the property? (2) If so, was the taking for public use? and (3) If there were a taking for public use, did the federal statute adequately provide for just compensation?¹⁸⁰ Considering the convoluted nature of the Court's takings jurisprudence¹⁸¹ and the ad hoc, factual inquiry into whether a taking has occurred,¹⁸² it is difficult to postulate whether the Court would recognize a "new"

180. Ruckleshaus, 467 U.S. at 1000-01.

^{175.} Ruckleshaus, 467 U.S. at 998-99.

^{176.} Id. at 1001.

^{177.} Id. at 1002.

^{178.} *Id.* at 1003 (Justice Blackmun listing liens and valid contracts among protected intangible interests, both of which may be aptly characterized as interests in set of legal relations).

^{179.} For example, using Jeremy Bentham's definition of property as a "legally protected expectation of being able to draw such or such an advantage from the thing in question according to the nature of the case," one could argue that the right to pursue a common law tort claim is legally protected and endorsed by the law of each state and that only the person injured may possess that right to "draw advantage" from tort law to remedy his injury. Such loose and expanding concepts of modern property are easily exploited to fit such intangible interests. *See* ROGER A. CUNNINGHAM ET AL., THE LAW OF PROPERTY 1 (2d ed. 1993).

^{181.} See Kaiser Aetna v. United States, 444 U.S. 164, 174-75 (1979) (admitting that the Court has been unable to develop any set formula for determining when economic injuries caused by public action constitute a taking); Penn Central Transp. Co. v. New York City, 438 U.S. 104 (1978) (holding that taking did not occur when property owner was afforded reasonable return on investment); First English Evangelical Lutheran Church of Glendale v. County of Los Angeles, 482 U.S. 304 (1987) (holding that temporary deprivation of property amounted to compensable taking). 182. Kaiser Aetna, 444 U.S. at 175.

property interest. The argument may be made, however, to show that where regulatory action or federal law expressly preempts all state tort remedies in order to foster uniform national pollution standards, individual victims who are not fully compensated under the federal schemes for their pollution-related injuries should not be forced "to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."¹⁸³

III. PROGRESS AT WHAT COST?

In 1969, Congress suggested implementing legislation that would have granted "each person . . . a fundamental and inalienable right to a healthful environment."¹⁸⁴ Presently, legislators are making a concerted effort to insulate industrial polluters and other wrongdoers from tort liability, suggesting that the tort system has run amok and is stifling the nation's economic growth and competitiveness.¹⁸⁵ As a society, we must consider the wisdom of this approach toward solving environmental problems and should ask ourselves and our elected officials where our priorities lie.

In his book *Future Shock*,¹⁸⁶ Alvin Toffler prophesied that humankind would suffer increasing difficulties in adapting to everyday life if it allowed technological advancement to progress without sufficient reflection and control.¹⁸⁷ For this reason, our government created agencies such as the EPA with noble goals in mind: the protection of the health and welfare of biosphere and demosphere alike. These agencies were supposed to engage in the careful planning needed for long-term comprehensive reduction of manmade pollutants. Unfortunately, unrelenting industrial, economic, and political pressures have thwarted the abilities of regulators to pursue zealously standards for our wellbeing. Standards attempt to reach a compromise between the polluters and the polluted, and no one leaves the table satisfied.

The civil justice system of this country, albeit imperfect, attempts to correct for the inadequacies of the regulatory framework. Regulators and lawmakers, besides existing in a climate of competing special interests, must rely on inadequate data and questionable methodologies when deciding how much risk

^{183.} First English, 482 U.S. at 319 (citing Armstrong v. United States, 364 U.S. 40, 49 (1960)). 184. See PLATER ET AL., supra note 19, at 600 (discussing original language contained in draft versions of National Environmental Policy Act of 1970; drafters deleted this language before bill's passage into law).

^{185.} See supra note 53 and accompanying text.

^{186.} TOFFLER, supra note 119.

^{187.} Toffler urged society to consider the side effects of new technologies in terms of their effects on the environment, culture, value systems, and psychological well-being of humankind: "We can no longer afford to let such [effects] just 'happen.'... Where these effects are likely to be seriously damaging, we must also be prepared to block the new technology. It is as simple as that. Technology cannot be permitted to rampage through the society." *Id.* at 388.

society should accept. These decisions are made in a vacuum: public comment may be accepted before regulations are implemented, but no real effort is made to incorporate certain "irrational" public concerns which may have legitimate value components. As a result, state torts may be the only means of redressing privately suffered harms generated by polluters who comply with federal "safety" standards.

Far from destroying our nation's economic productivity, however, tort liability encourages industries to develop new safer technologies: double-hulled tankers and pickup trucks with gas tanks inside the chassis are prime examples. Though critics may claim that public unwillingness to accept increased risk may have the effect of removing beneficial products from the market, the solution is not to remove the ability to sue but to distribute the costs of risks through realistic industry pricing. We must not require some members of our society to bear the costs of "unavoidable" risks for the greater public good—everyone must pay their fair share. Though this application of "distributive justice" may not satisfy all interests, legislators should not be hasty to discard the system if no adequate alternatives exist.

Environmental problems require complex solutions and a great deal of circumspection. Our health and the well-being of the biosphere are at stake. Though solutions entail inevitable costs, the sacrifice of individual justice is one we cannot afford even though we are led to believe that it is for our own good.