Litigation

Regulation by Litigation

*By Andrew P. Morriss, Bruce Yandle & Andrew Dorchak**

For over a century, government regulation has largely taken one of two paths. Some agencies publish proposed regulations, take comments on their proposals, and then revise the proposal into a final regulation. Some of these regulations have been issued through the negotiated rulemaking process, in which the initial proposal is crafted in negotiations with interested parties; in most cases, the initial proposal is written by the agency staff. Those dissatisfied with the final regulation can seek review in the courts. Other regulatory agencies decide cases involving alleged violations of statutes through an adjudicatory process, issuing written decisions explaining their reasoning. These decisions then form a common-law-like body of law, which lawyers use to advise their clients about the likely outcome of future cases. Those dissatisfied with the agency's decisions can appeal to the courts. The National Labor Relations Board, for example, has long operated almost entirely through Board decisions rather than through published regulations.[1]

In both instances, the imposition of rules governing future behavior is the result of an agency process that meets the requirements for due process and some political accountability followed by the potential for judicial review. Over the last twenty years a new form of regulation has appeared that does not include these guarantees: regulation by litigation. Regulators, private attorneys, and alliances of regulators and private attorneys have been imposing substantive constraints on private actors' future conduct through lawsuits against the major players in industries from heavy duty diesel engines to tobacco. By suing the major firms in an industry, would-be regulators achieve coverage that is close to the universal coverage provided by a conventional agency regulation. By crafting the regulations as settlements to lawsuits, however, the regulators are able to avoid the checks and balances imposed by the regulatory process, including putting major obstacles in front of anyone seeking to challenge the regulatory aspects of the settlements. And in many instances regulation by litigation allows regulators to avoid provisions of substantive law that legislators and citizens intended to restrict their activities. Regulation by litigation thus differs significantly from traditional rulemaking, negotiated rulemaking, and agency adjudication. It frees regulators from restrictions imposed by legislatures, and reduces opportunities for challenges to their behavior in the courts. This phenomenon should worry any lawyer engaged in regulatory practice and concerned with limited government.

* *Andrew Morriss is H. Ross & Helen Workman Professor of Law and Business at the University of Illinois and Senior Associate at the Mercatus Center at George Mason University. Bruce Yandle is Alumni Distinguished Professor of Economics Emeritus at Clemson University and a Senior Scholar at the Mercatus Center. Andrew Dorchak is Head of Reference and Foreign & International Specialist at Case Western Reserve University School of Law. This article draws on the authors' forthcoming book, Regulation by Litigation (Yale University Press, 2008).*

I. Regulation

Regulation occurs when agencies (or private actors) compel firms and individuals to change their future behavior by threatening them with sanctions for non-compliance. It is thus *forward-looking*, rather than a backward-looking attempt to obtain compensation for a past harm or punishment for past actions. Of course, having to pay compensatory damage awards or fines may alter someone's future behavior out of a desire to avoid paying damages or fines in the future. But the incentive effects of damage awards or fines differ from the impact of substantive restrictions on future behavior in three ways. First, regulations cover many firms and individuals who may not be parties to the controversy that inspired the regulations; damage awards and fines are awarded against individual firms or persons. Second, regulations address future behavior regardless of the actor's past conduct; fines and damage awards are based only on past behavior, regardless of future conduct. Third, a fine or damage award can be imposed only when there is a recognized duty and breach; a regulation can be imposed governing behavior that was previously seen as legal.

When governments regulate, they displace the mixture of markets and tort and contract law that would otherwise govern the relationships between private individuals. The results of regulation are systematically different from unregulated outcomes. In particular, unregulated outcomes are more heterogeneous than regulated ones, as local knowledge and diverse individual preferences will lead different individuals and firms to different solutions to the same problem.

At least in theory, regulation occurs because those private law institutions have failed for one reason or another. However, regulation is problematic for many reasons. A key reason is that there is no a priori assurance that regulatory solutions will be welfare-increasing, an assurance we possess for private transactions. Because contracts are voluntary, for example, we know that they leave the parties to the contract at least as well off as not entering into the contract would have. Regulators, however, act when the benefits to them exceed their costs, not society's benefits and costs. We thus have no guarantee that regulators will act in the public interest. We do have reason to suspect that they will not. As James Madison noted in *Federalist* No. 10, the problem of faction is endemic to political life, and faction is the root of special interest regulation. Public choice theory has since expanded on Madison's insight to give us many additional reasons to be skeptical of regulators' actions. For example, we frequently observe regulators behaving in ways that advance the interests of organized interest groups at the expense of the general public.

Madison also offered a solution to the ills of factions: he insisted that our governing institutions make it difficult for political actors to serve the interests of factions at the expense of the nation as a whole.

> If a faction consists of less than a majority, relief is supplied by the republican principle, which enables the majority to defeat its sinister views by regular vote. It may clog the administration, it may convulse the society; but it will be unable to execute and mask its violence under the forms of the Constitution. When a majority is included in a faction, the form of popular government, on the other hand, enables it to sacrifice to its ruling passion or interest both the public good and the rights of other citizens. To secure the public good and private rights against the danger of such a faction, and at the same time to preserve the spirit and the form of popular government, is then the great object to which our inquiries are directed....[2]

Today we know that the institutional barriers to special interest capture of regulatory agencies are not as strong as Madison must have hoped they would be. From protectionist measures to environmental regulations, the economics of regulation literature has documented the limitations of our institutional constraints on the use of regulation by special interests. Yet we have some protection from rent-seeking by special interests within the political process, and through judicial review of agency regulatory measures. This is not the case with regulation by litigation.

II. Litigation as a Means of Regulation

Regulation by litigation differs significantly from regulation through rulemaking or regulation by negotiation because there is no rulemaking attached to it. Rather than issue a proposed rule or invite the affected parties to negotiate a rule, the regulator sues one or more regulated entities, charging them with violation of an existing statute, regulation or common law rule. By threatening catastrophic consequences (more about this below), the regulator persuades (or coerces) the regulated entities to agree to a final outcome that looks like the outcome of regulation-by-negotiation or regulation-by-rulemaking: a set of detailed rules that constrain future behavior.

This is not the same as an enforcement action by a regulator, which aims to bring a firm or individual into compliance with existing regulations. To see the distinction, consider a disagreement between an auto maker and EPA over the meaning of a particular Clean Air Act provision. If General Motors disagrees with EPA, and that disagreement is resolved through an enforcement action by EPA against GM, there has not been regulation-by-litigation. However, if EPA disagrees with GM, Ford, Chrysler, Honda, Toyota, Hyundai, Volkswagen, and BMW, and sues all of them to force them to accept a new interpretation that will require them to behave differently next year from how they behaved this year, it is more likely that regulation is occurring through the litigation. Crucially, these new substantive provisions must apply to enough of the regulated industry's participants to be an effective substitute for regulation. Regulation by litigation can thus occur only when almost all of an industry can be included in the underlying lawsuits by the agency. If market participants are left out of the settlement and the settlement imposes costly measures on those who agree to it, the firms and individuals not covered will have a cost advantage over those who do participate.

Finally, regulation by litigation is most likely to occur when the regulators can persuade the regulated to agree to a settlement. When a lawsuit is contested, agencies are less likely to be able to exceed their authority because the regulated will have an incentive to vigorously contest in court the agency's arguments for its authority. Courts give less scrutiny to settlements than they do to contested litigation because they prefer settlements, and because there is no one in the court room to provide the court with a critical appraisal of the settlement's provisions. As we discuss below, this reduced scrutiny makes settlements the ideal vehicle for imposing regulatory measures that exceed the regulators' authority.

III. The Benefits and Costs of Regulation by Litigation

There are no public benefits to imposing regulation through litigation. Any regulatory measures achieved in a settlement could be obtained through conventional rulemaking or legislation. Which regulator will have to act may be different, but the outcome could be achieved without litigation. For example, the tobacco Master Settlement Agreement effectively imposed a tax on future sales of cigarettes in all fifty states through settlement of litigation between the major U.S. tobacco companies and a coalition of state attorneys general and private lawyers. The state legislatures could have passed tax increases, as could Congress, which would have had the same effect, but the attorneys general and private lawyers could not have. No state attorney general, and no private attorney, has the authority under any state constitution to tax tobacco (or anything else). The key to the attractiveness of regulation by litigation is exactly this—that it enables regulators to assume powers that they otherwise lack. It should be seen as a negative, not a positive, attribute of regulation by litigation that it enables government and private actors to evade constitutional restraints on their powers.

Further, regulations imposed by litigation are less comprehensive than regulations imposed by rulemaking. New rules apply to everyone; settlement provisions apply only to the parties. Not only could existing firms and individuals be excluded from a regulation by litigation settlement but the costs of compliance create incentives to enter the industry and undercut participants' prices. This is exactly what has happened in the cigarette industry, where new firms that are not parties to the Master Settlement Agreement have entered and taken market share from the parties. If a regulation is a good thing, it surely should be applied to everyone equally.

For all its flaws, regulation through rulemaking has several advantages over regulation by litigation. Perhaps most importantly, regulators are constrained by the constitutional requirements of the due process clauses and by statutory restrictions in general procedural statutes such as the federal Administrative Procedure Act (APA) as well as by specific provisions in substantive regulatory statutes. As Prof. William Funk notes, the APA is "designed to constrain the discretion of agencies through procedural regularity and judicial oversight."[3]

Traditional forms of regulation also must go through a process that offers opportunities to hold the regulator politically accountable. Regulators are ultimately accountable to politicians both in the executive and legislative branches, and politicians

are accountable to voters. The chain of accountability is weak, but at least in some egregious cases regulators have been forced to back off from over-reaching (*e.g.,* OSHA's attempted ergonomics regulation)[4] and political pressures have led to some restrictions on regulators' actions (*e.g.,* Congress' successful efforts at blocking many of the Clinton Administrations' efforts to undercut the General Mining Law of 1872).[5] And the potential of political backlash restrains regulators. Imperfect accountability is better than a lack of accountability.

Even more importantly, regulators' authority and judgment can be tested in the courts by any one affected by their actions. Regulators are well aware that their actions may be challenged in court and so behave more carefully than they would if their decisions were not reviewable. Again, the check is imperfect, particularly given the deference courts often grant agency interpretations of statutory authority, but the ability to challenge regulatory measures in courts remains a key restraint on agency action.[6]

Just as regulators' decisions whether to regulate or not are suspect because the decisions ultimately depend on the costs and benefits of action to regulators, so too the regulators' decisions about *how* to regulate are equally suspect. Regulators can choose among traditional rulemaking, negotiated rulemaking, and regulation by litigation as the means to impose constraints on private actors.[7]

IV. Case Studies

Using case studies of the Environmental Protection Agency's regulation of heavy duty diesel engines and the private 'dust litigation' over silica and asbestos from the 1930s to the present, we can see how regulators use litigation to evade the institutional restrictions used by lawmakers and constitution writers to attempt to limit regulators' power over private interests.[8]

A. Heavy Duty Diesel Engines

Federal regulation of air pollution sources is built on the combination of national air quality standards and specific source regulation. EPA sets National Ambient Air Quality Standards (NAAQS) that establish the levels of various pollutants acceptable to the agency. To meet the NAAQS, the agency and states together set various requirements for specific stationary sources and for categories of mobile sources. Most mobile source regulation is conducted by EPA; states have authority only over limited aspects of mobile source emissions.[9] If a state is not in compliance with a NAAQS, it must reduce emissions to meet the NAAQS, which means it must reduce emissions from stationary sources in most instances.

When the federal government began addressing mobile source air pollution with the 1970 Clean Air Act Amendments, heavy duty diesel trucks were a tiny fraction of the nation's fleet. Only 1.75% of total particulates, 0.02% of carbon monoxide, 1.9% of hydrocarbons, 4.8% of nitrogen oxides (NO_X), and 0.4% of sulfur oxides (SO_X) came from heavy-duty diesels in the early 1970s.[10] Not surprisingly, EPA paid correspondingly little attention to heavy duty diesels at first, focusing its mobile source efforts on auto emissions. One early regulatory choice proved significant, however. Because heavy duty diesel engines are sold separately from truck bodies (and in many cases are made by separate manufacturers), EPA opted to test engines outside of the truck bodies to reduce the number of separate certifications necessary. Heavy duty engines are thus tested in the laboratory, rather than on the road, using a test protocol that specifies exactly how the engine is to be operated during the test. The protocol makes a major difference in engines' emissions during testing—the European Union and the United States use different test protocols, and engines score differently on the two tests.[11] EPA began with a steady state test protocol, but switched in 1979 to a test protocol that attempted to simulate a variety of driving conditions, using "a second-by-second listing of prorated speeds and torques, through which the engine must be exercised within statistically acceptable limits."[12] Again demonstrating the importance of the specification, the agency found little correlation between engines' results on the two tests.[13] Crucially, the federal emissions standards are specified in terms of this protocol, not in more general terms—what matters is whether an engine performs to the test protocol in the lab, not how much it emits when operated on the highway under actual road conditions. EPA tests new engines annually and issues certifications that new model engines meet the current standards, allowing them to be sold in the U.S. market.

When Congress amended the Clean Air Act in 1977, it tightened the standards for heavy duty diesel engines. In doing so, Congress also added a provision that required that each new set of heavy duty engine standards apply to at least three model years, giving engine manufacturers time to recover the costs of meeting one set of standards before having to develop new technology to meet the next set.[14]

EPA's mobile source standards have been technology-forcing, regularly requiring mobile source manufacturers to develop new technologies to meet them.[15] As EPA progressively tightened emissions standards from the late 1970s into the 1980s, heavy duty diesel engine manufacturers began integrating electronic engine controllers into their engine designs.[16] (Automobile manufacturers did as well.)[17] These controllers gave the engine manufacturers greater control over combustion, allowing them to both increase engines' efficiency and to reduce emissions. But, because different emissions problems result from incomplete combustion (*e.g.,* particulates) and more complete combustion (*e.g.,* NO_X), the manufacturers soon ran into a number of tradeoffs in their designs. If they improved engines and boosted mileage by increasing combustion efficiency, the engines also produced fewer particulates but more NO_X. If they focused on NO_X reduction, however, their engines' mileage suffered and the engines produced more particulates.[18] (The engine manufacturers' customers were more interested in improved mileage than emissions reductions, of course.)

The combination of these tradeoffs, customer demands for increased mileage, test protocols' specifications, and the increasing sophistication of the electronic engine controllers led manufacturers to develop engines that recognized test conditions and minimized emissions under them, while maximizing mileage under non-test conditions. As a subsequent House Commerce Committee staff report documented, this practice was widely known in the industry, discussed at conferences at which EPA staff were present, and the subject of complaints by California regulators and environmental pressure

groups to EPA for several years, making it clear that the agency knew about it for years.[19]

The final piece of the diesel engine regulation story comes from EPA's reliance on computer modeling in regulating air pollution. Rather than measure air quality to determine how regulatory measures work, EPA has long used an assortment of computer models to estimate air quality and to determine the impact of emissions control measures.[20] Modeling can be a useful tool but carries with it some important risks, several of which combined to put EPA in a difficult position in the late 1990s. First, the model may fail to accurately forecast emissions because it oversimplifies. For example, early versions of EPA's MOBILE model simply estimated heavy duty truck traffic as a percentage of automobile traffic, and so failed to capture the significant changes in demand for truck-based shipping that accompanied the deregulation of trucking in the 1980s.[21] Second, the model may inaccurately capture the impact of control techniques, biasing regulators toward measures that earn credits in the model but do not actually reduce emissions. For example, the model hardwires in a preference for centralized inspection and maintenance programs over decentralized programs. This gives the former twice the emissions reduction credits it awards the latter, despite a lack of hard evidence that centralized ones produce twice the emissions reductions.[22]

Partly as a result of such decisions, EPA found itself in the 1990s with a growing NO_X and particulate emissions problems.[23] In particular, NO_X contributes (in some cases) to ozone level depletions and there were large areas out of attainment with EPA's ozone standard.[24] EPA therefore needed to reduce NO_X emissions. This problem was due in part to underestimates of truck emissions that resulted from both EPA's failure to accurately forecast truck traffic and EPA's incorrect emissions predictions per truck (because it did not accurately count off-test-cycle emissions). EPA found itself under increasing pressure from the states with ozone non-attainment areas to find ways to reduce NO_X emissions, and from states with particulate non-attainment areas to reduce particulate emissions. Unfortunately for EPA, it had recently changed the heavy duty truck standards, and so was precluded by the Clean Air Act's lead time rule from changing those standards again for several years.

In 1998 EPA's enforcement staff found a solution: sue the heavy-duty diesel engine makers for using "defeat devices" (*i.e.,* the engine controllers) to violate the Clean Air Act emissions standards. The problem with this theory was that the regulations themselves said nothing about off-test-cycle emissions, and EPA had previously tacitly acknowledged the legitimacy of the controller's programming by approving engines with off-cycle emissions substantially above their test-cycle emissions. How could EPA find a way around this?

The solution to this problem was to raise the stakes to the point where the engine companies could not afford to take a chance on the outcome. EPA filed suit in 1998 against all of the companies making heavy duty diesel engines in the United States, alleging that the engine controllers constituted "defeat devices" under the Clean Air Act.[25] The agency further announced that it would not certify any engines for the forthcoming model year that had the disputed controller programming in them. This put the engine manufacturers in a bind. If they could not use the controller technique, their engines would operate much less efficiently.[26] Since diesel engines' primary selling point was their efficiency, this would be a significant blow. Moreover, if any company did not settle the litigation with EPA and its competitors did, the non-settling company would be cut out of the U.S. market.

Although the diesel engine makers believed they had an excellent chance of winning the underlying litigation with EPA, they also recognized that they had no real option but to settle. EPA demanded significant financial penalties (totaling more than $190 million for all six companies).[27] Even more importantly, the agency also insisted that the companies agree to "pull ahead" the model year 2004 standards to October 1, 2002, applying them before the lead time provision would have allowed EPA to directly impose a new standard.

Heavy duty diesel engines are complex machines. The requirement to meet the 2004 standards fifteen months early left the engine manufacturers scrambling.[28] Part of the problem was that to meet the 2004 standards required more than a simple tweak of the engine controller. And changing the engine often required changing the truck body itself. For example, some of the new engines ran so hot that test models melted the drivers' shoes. Trucking companies were not interested in untested technology that promised to be more expensive to operate (lower mileage), and which offered no new benefits for them. *Fleet Owner* quoted an anonymous vice president for maintenance and equipment at "one of the nation's largest tank-truck carriers" in favor of avoiding the post-October 2002 engines: "The way we figure it... the '02 engines will add about $4,000 to the cost of the trucks. Then we'll lose another $4,000 to $5,000 on decreased fuel efficiency. That puts us $10,000 in the hole. And that's without figuring in the uncertainty of engine performance. Yes, those engines will be under warranty. But any downtime they pile up won't."[29] In response to the October 1, 2002 deadline, they opted to buy more trucks before the new standards went into effect, and fewer afterwards. This led to what one industry observer termed "one of the biggest boom and bust scenarios for the diesel engine manufacturer."[30] As a result of this "pre-buy," trucking fleet acquired more of the pre-October 1 engines than they would have done otherwise and fewer of the post-October 1 engines. This bulge is still working its way through fleets, as many heavy duty engines operate for ten years or more.[31] Thus, if EPA was right about the benefits of the new standards, its litigation had the opposite effect from what the agency intended, increasing the number of "dirty" trucks on the road for years.

Why did EPA opt to litigate? After all, just a few years earlier the agency had joined with the California state air quality regulators and the engine manufacturers to negotiate a "Statement of Principles" intended to provide a cooperative framework for regulation for the coming decade.[32] What moved the agency from cooperation with industry to confrontation?

The settlement helped EPA with its ozone and particulate NAAQS problem by cutting NO_X and particulate emissions. Almost none of the settlements' provisions were something EPA could have imposed directly through regulation, although some were relatively straightforward mitigation measures that

EPA could have bought with incentives. Every ton of NO_X and particulates removed from the atmosphere through these various programs, if captured by EPA's models, helped reduce the NO_X and particulate overloads that were causing problems without requiring states to impose additional costly controls on stationary sources. To gain such reductions without the litigation, EPA would have had to offer something of value to the engine manufacturers and, other than relaxing other limits, EPA had little to put on the table. Of course EPA could have funded such projects directly, but that would have required convincing Congress to appropriate funds for it. By using regulation by litigation, EPA shifted those costs to the industry and so got that appropriation for free.[33]

The settlement process also eliminated the industry challenges that could have been made in rulemaking. Because EPA had not only the threat of the litigation over the previous years' engines' use of the alleged defeat devices, but also the ability to reject the certifications of the next model year's engines for using controllers in ways of which EPA disapproved, the agency had a big stick with which to threaten the engine manufacturers. Unlike in the lawsuit over past practices, EPA's past knowledge of controller use and tacit acceptance of it would not be as powerful a weapon for the engine manufacturers if they were forced to sue the agency over a decision to not certify their engines. Moreover, it would be difficult for the group to maintain a common strategy with respect to future certifications, since any company that broke ranks and complied with EPA's demands and received a certification for its new engines would gain an immense competitive advantage over the other companies.

The settlement process increased the agency's authority relative to the environmental pressure groups, and others who might object to proposed rules, since the changes would be reviewed as part of the settlement process rather than in a challenge to a rulemaking proceeding.[34] As EPA noted in seeking approval of the settlements, the complaints of many of the outside interest group commentators on the settlements was that the government had not sought public input.[35] EPA was thus able to gain from choosing regulation by litigation. The agency obtained faster gains in NO_X and particulate reductions from heavy-duty engines than it could have from rulemaking; the ability to circumvent the Clean Air Act's lead time provisions; limits on environmental pressure groups' participation; and a public relations coup. EPA staff also locked in the regulatory changes imposed through the settlements. Regulatory changes made at the end of an administration are vulnerable to changes by the incoming administration; litigation is generally considered politically untouchable. All of these advantages of regulation by litigation were valuable to EPA and explain why litigation was an attractive option for the agency in 1998.

Moreover, agencies are not monoliths. EPA's enforcement staff is separated internally from its program offices, and has different incentives. For example, the program offices have reason to value their relationships with affected industries highly, because they must work with them in repeated interactions, cooperate in the production and evaluation of data, and share information that informs the agency's estimates of how far technology can be pushed. The enforcement office's incentives are focused on winning discrete victories. If the controller issue went from being framed internally as a problem to be solved looking forward to one framed as a need to punish bad past behavior, the top agency decision makers would choose different actions as appropriate. Off-the-record descriptions of the agency meetings with industry provided to us by a number of participants suggest that just such a shift occurred.

EPA's regulation of heavy duty diesel engines by litigation provides an important lesson for policymakers. The agency resorted to regulation by litigation to solve a problem created in part by the imposition of an important constraint on agency regulatory authority by Congress: the lead time provision of the Clean Air Act. Choosing litigation rather than rulemaking freed the agency to do something Congress had explicitly forbidden it to do. Regulation by litigation thus offers regulators an alternate means of achieving their goals, freed from constraints imposed on rulemaking.

B. Dust Litigation

Private parties, not just public agencies, can regulate through litigation. Almost a century of litigation over dust in the workplace shows how private lawsuits can sometimes evolve into regulatory efforts.

Dusty workplaces have been linked to occupational disease for centuries. A sixteenth century treatise, *De Re Metallica,* noted the hazards of dusts in mines for miners. It was not until the invention of power tools such as the pneumatic hammer drill and techniques such as sand blasting at the turn of the twentieth century that dust became a widespread problem in the workplace.[36] The new tools and techniques meant there were more, finer dust particles in the air in more workplaces. Although there are no systematic records of dust levels, some studies from the 1910s found levels more than 100 times the modern Occupational Safety and Health Administration regulations' permissible levels of silica dust.[37] At the same time as dust was becoming more prevalent, medical technology was advancing and providing new techniques for diagnosing lung conditions. The invention and widespread dissemination of radiographic technology, for example, allowed doctors the ability to see into lungs and observe the impact of breathing silica dust.[38]

The first decades of the twentieth century also saw the rise of new legal theories for dealing with occupational illnesses. Rising accident rates, another consequence of the new power machinery, led labor groups to successfully lobby for workers' compensation statutes based on the German model, transforming workplace injury litigation into social insurance schemes.[39] Occupational diseases were not initially included within the new legislation, but they offered a model for resolution of a workplace problem. Businesses accepted workers' compensation in return for elimination of tort litigation over accidents.

Dust exposure's chronic health impacts took decades to appear and it was not until the 1920s and early 1930s that widespread incidence of dust-related occupational lung diseases began to appear. At first there was little litigation over it, as the booming economy of the 1920s meant that workers in dusty trades who came down with illnesses could readily

find employment elsewhere. But with the onset of the Great Depression, occupational disease litigation offered many a potential lifeline and the number of cases soared.[40] More than a billion dollars of silicosis suits were pending in 1934, the equivalent of over $14 billion of claims in today's dollars.[41] Insurers reported that they faced "the most serious claim problem ever encountered" as a result of silicosis suits.[42]

While some of these suits involved genuinely injured individuals who had suffered real damages and properly sought compensation through the tort system, others did not. Silicosis suits brought with them bitter clashes over allegations of fraudulent claims such as those detailed in articles like "The Dust Hazard Racket" in legal publications, as well as causing disputes between insurance companies and their insured over coverage.[43] Some experts felt that too many doctors were willing to support doubtful claims based on unskilled readings of radiographs.[44] Other observers blamed differences in state laws. As one observer in the 1930s complained, people without injuries took advantage of some states' looser standards to bring fraudulent claims. One account declared that "Missouri is a paradise for this type of racketeering," alleging that while "[a]t first" lawyers restricted themselves "to cases where some disability existed… [m]ore lately solicitation has been carried on among workers still engaged in active work, who have no more outward appearance of disability than the dust on their clothes and some outward appearance of age.[45] A large part of the problem was that the tort system was not able to easily distinguish real claims from fraudulent ones. Medical technology had advanced in the past forty years, but it was still unable to offer definitive diagnoses in many cases in the 1930s.

The dust disease issue took on national significance when an ambitious Republican congressman from New York City, Vito Marcantonio, held hearings on an industrial disaster in West Virginia where tunnel workers had bored through a vein of almost pure quartz and many then died from acute silicosis.[46] With employers and insurers under pressure from Marcantonio's hearings, and fearing another of FDR's "alphabet agencies" would be established, and unions anxious to preserve workplace safety as an issue for themselves, all three groups quickly negotiated inclusion of silicosis and industrial diseases into the workers' compensation system.[47]

Dust diseases received little attention for several decades until the discovery of asbestos dust lung diseases in the late 1960s and 1970s.[48] The earlier success in bringing industrial diseases into workers' compensations systems was now an obstacle to the trial bar's recovery of damages. With sympathetic facts, including the federal government's concealment of asbestos' dangers during World War II to increase ship production, the trial bar was anxious to get tort damages in place of the more limited payments available under workers' compensation systems. When the federal Fifth Circuit Court of Appeals allowed suits against asbestos manufacturers to proceed in 1973 with its decision in *Borel v. Fibreboard Corp.*,[49] it opened the floodgates for what became "the longest running mass tort in U.S. history."[50] Asbestos litigation quickly spread far beyond its original confines, now involving defendants in seventy-five of the eighty-three "Standard Industrial Classification" (SIC) two digit codes used to classify the American economy.[51] The scale of its economic impact dwarfs natural disasters or even the most sweeping rulemakings. Former Attorney General Griffin Bell contends that estimates of asbestos litigation's costs to the economy are greater than the estimates of the costs of "all Superfund cleanup sites combined, Hurricane Andrew, or the September 11 terrorist attacks."[52] The RAND Corporation's most recent study of asbestos litigation estimated that $70 billion had been spent on compensation and litigation costs through 2002.[53] Reasonable estimates of the total costs of asbestos litigation now range from $200 to $265 billion.[54]

Just as with EPA's suits against the heavy duty diesel engine makers, the key to success for the asbestos plaintiffs' bar was the innovation by several law firms of "massing up" claims. This made the risk of trial too great for the defendants to bear. By filing thousands of claims against a defendant, the plaintiffs' bar was able to overwhelm the court system's mechanisms for screening out illegitimate claims. Law firms hired screeners to locate and refer potential plaintiffs and then filed claims in sympathetic jurisdictions such as Mississippi, New York, Ohio, Texas, and West Virginia. Although the first wave of asbestos suits involved plaintiffs suffering from a form of cancer closely linked to asbestos exposure, the dominant claims today are from non-malignant claimants.[55] Prof. George Priest aptly summarized the situation by writing that "we see today, in asbestos litigation, cases that would have been inconceivable thirty years ago and cases that are still inconceivable in any context other than asbestos."[56] Prof. Frances McGovern, who has both studied asbestos litigation as an academic and served as a special master for courts handling asbestos cases, argues that

> [a]sbestos litigation is virtually unique in its high degree of elasticity. There is elasticity in the sense of a nearly inexhaustible pool of plaintiffs and defendants. There is also elasticity in the procedural and substantive law to allow rapid processing of claims, thereby modifying the economics of tort recovery and accelerating the demand for new filings.[57]

By the late 1980s, asbestos claims had become big business.

Claims also became concentrated in a few plaintiffs' firms over time. The top ten firms had a quarter of annual filings in 1985; in 1992, the top ten firms accounted for half of the new cases, and the share of the top ten firms remained at least that high through the end of the decade.[58] This concentration made the firms that controlled large numbers of claims powerful. It enhanced their negotiating position with defendants, gave them significant voices on the creditors' committees for the defendants in bankruptcy, and provided them with substantial economic rewards. These firms became a significant interest group with the tools to defend themselves. As the plaintiffs' bar moved away from simply representing individuals to running businesses that stretched from plaintiff-identification through mass screenings to dominating the bankruptcy proceedings of some defendants and threatening others with insolvency, the litigation became regulation.

Three key features distinguish asbestos litigation from the mass of ordinary tort suits. First, the staggering number of cases means asbestos cases rarely go to trial.[59] The "nearly inexhaustible pool of plaintiffs and defendants" quickly

overwhelmed the court system, making trials impossible. For example, in the early 1980s a judge with a case load of 126 asbestos cases was thought to have a heavy load; twenty years later, "maybe 126,000 might get [courts'] attention."[60] As federal Seventh Circuit Judge Richard Posner noted, such volumes "exert a well-nigh irresistible pressure to bend the normal rules."[61] Instead of trials, quasi-administrative proceedings emerged to handle claims in bulk.[62] Those procedures made it possible to keep cases moving toward settlement, but they also meant that the checks imposed by the adversarial nature of the litigation process were absent.

Second, because the vast majority of cases were (and are) handled by just a few plaintiffs' firms, and featured the same defendants over and over, the adversarial process changed from what economists call a "one time" game into what they term a "repeat player" game, *i.e.,* from a situation in which parties had no reason to expect to see one another again to a situation where the lawyers on both sides knew they would be dealing with the same opposing counsel on future cases for years to come. Repeated interactions can lead to beneficial cooperation, but also undermine institutional constraints that rely on an adversarial relationship. This is particularly true where repeat players find themselves on the same side of a contest. Not surprisingly, in the asbestos cases the result was "standing settlement agreements" between the plaintiffs' bar and the major defendants.[63] Not only did these agreements lower costs for the existing players, they constituted a significant barrier to entry, helping to maintain the concentration of cases in a small number of firms.

This concentration of claims meant that asbestos cases became a highly profitable business for the law firms involved: the Dallas law firm of Baron & Budd alone reportedly had grossed more than $800 million from asbestos cases by 1998.[64] This business was dominated by a small group of firms with the intellectual capital in methods of locating plaintiffs, developing and filing cases, and settling them in short order. The result was the creation of a powerful economic interest: the asbestos plaintiffs' bar.

These firms became significant actors both in the political process and in bankruptcy proceedings involving defendants.[65] Further, given the firms' considerable investments in developing expertise in asbestos-related matters, they naturally sought to increase the return on their investment by expanding the range of claims, claimants, and defendants.[66] This dynamic can be seen in the expansion of claims to include non-malignancy and asymptomatic claims, the aggressive search for claimants, and the extraordinary expansion of activities that led firms to be sued in asbestos litigation.[67] As we will discuss below, it also led some plaintiffs' firms to invest in expanding into silica litigation. And the asbestos plaintiffs' bar became the source of the main lawyers involved in the state attorneys general litigation against tobacco companies in the 1990s.[68]

Viewing the history of asbestos litigation in retrospect, it becomes clear that the plaintiffs' bar had an incentive to invest in developing evidence and legal theories, since both could be used in multiple cases. They had the incentive to search for the most favorable jurisdictions for asbestos suits, ones with rules that eased procedural problems. Moreover, asbestos defendants did not have the usual incentives to vigorously defend themselves against the claims. Rather, their main incentive was to find an accommodation with the plaintiffs' bar that enabled the firms to manage their liabilities so that they could survive.[69]

The structure of asbestos litigation gives the plaintiffs' bar significant advantages. By overwhelming the courts, plaintiffs' attorneys are freed from the close supervision of their fees and settlement practices that courts normally use to control potentially abusive practices.[70] The volume then creates a demand by the courts for innovative means of processing cases to reduce costs. These innovations then lower the cost of litigation, in turn attracting additional cases.[71] And the defense bar is unable to adopt vigorous tactics because it is overwhelmed by the volume. Moreover, the small number of major asbestos law firms on the plaintiffs' side of the litigation acquired substantial resources, which can be deployed to influence courts and legislators to protect the steady income stream these cases provide.[72] The massive numbers and indefinite nature of many of the claims also meant that individual plaintiffs have little control over their attorneys, putting the lawyers in charge.[73] In sum, converting the process into a repeat player game weakens the check on plaintiffs' counsel provided by the adversarial system.[74]

Not satisfied with their asbestos winnings, the asbestos bar next turned to silica dust claims. Silica exposures increased in the oil industry in the 1970s, particularly in Texas where the state's tort law allowed suits for breach of an affirmative duty to warn against manufacturers of hazardous products. As had been the case with asbestos cases, the lawyers quickly began "massing up" claims against defendants, again using mass screenings done by third party firms to generate referrals. For example, U.S. Silica, a major supplier of industrial sand, reported that pending claims against it grew from 3,505 in 2002 to 22,000 by June 30, 2003.[75]

The silica claims explosion had an unexpected side effect, however. 11,000 or so cases (the exact number proved elusive even for the court) were consolidated through the Multidistrict Litigation Panel in the courtroom of a former nurse and now federal district judge, Janis Graham Jack. In part due to her medical background, Judge Jack was suspicious of the huge volume of silica claims that had suddenly materialized. She allowed discovery on the medical basis for the claims, leading to the finding that just twelve physicians had diagnosed the approximately 9,000 plaintiffs who filed the required information concerning their medical records, although more than 8,000 doctors had seen the plaintiffs for other conditions. "In virtually every case, these doctors were not the Plaintiffs' treating physicians, did not work in the same city or even state as the Plaintiffs, and did not otherwise have any obvious connection to the Plaintiffs. Rather than being connected to the Plaintiffs, these doctors instead were affiliated with a handful of law firms and mobile x-ray screening companies."[76] When some of these doctors were deposed, the defendants discovered that several did not admit to having made any such diagnosis. And the plaintiffs' records showed that many had been diagnosed by the same physician with both silicosis and asbestosis in different cases, diseases which produce dramatically different patterns on radiographs. A congressional investigation uncovered additional

evidence of fraudulent claims.[77]

Asbestos led to regulation by litigation; silica did not. What can this tell us about regulation by litigation? The first lesson is that it is much harder for private litigation to create an effective substitute for regulation than it is for public entities to do so through litigation. The asbestos suits only became truly regulatory when the volume of claims began to force otherwise healthy companies into bankruptcy, giving the plaintiffs' bar an effective lever with which to force acceptance of their interests by the companies. In both silica examples, however, the litigation did not develop into anything approaching regulation. It is not impossible for private litigation to evolve into regulation by litigation, however, and so we need to worry about the conditions under which this can occur.

The second lesson is that when private interests do acquire quasi-regulatory power through litigation it can be much more damaging than when public regulators do so. The interests of the asbestos plaintiffs' bar have almost no connection to the public interest at large. Even if we expand the definition of their self-interest to include concern for their clients' well-being, the plaintiffs' bar has no reason to take into account the needs of others: the employees and customers of the defendants, the larger social interest in economic success, or even the proper functioning of the deterrent function of tort law. Asbestos litigation has proven costly in each of these areas. By forcing companies into bankruptcy, for example, the asbestos suits have reduced investment into productive activity and employment.[78] By stretching causation well beyond its normal bounds, asbestos litigation has significantly reduced the deterrence tort awards are intended to provide.

The third lesson is the crucial role that ignorance plays in creating the opportunities for private litigation to mushroom out of control. As the Rand Corp. survey of asbestos litigation noted, there is almost no information on the extent of asbestos injuries.[79] Similarly, data on the extent of silica exposure or silicosis is mostly based on estimates and conjectures. Even the extent of the current silica litigation is not well documented. Indeed, it was only the accident that so many cases from Mississippi ended up in the Texas MDL proceeding that sparked a judge's interest in exploring why there was such a great difference between Mississippi and the rest of the nation in silicosis. And it was only the fortuitous decision by the judge in that case to require the "Fact Sheets" with information on physicians that revealed the underlying pattern of flawed diagnoses before the decision to remand them to Mississippi was made.

CONCLUSION

Does regulation-by-litigation have a future? Unfortunately, we think so. Once agencies and entrepreneurial private attorneys discover the rewards of using litigation to regulate, it is hard to see why they would abandon the tool. It is possible to imagine stopping it only under limited conditions, however.

First, the defendants must be a concentrated group to make regulation effective without the transactions costs of the multiple lawsuits making the effort too expensive. Small numbers of firms produced the entire domestic heavy-duty diesel engine supply sold in the United States. Asbestos suppliers, the initial target of those suits, were also a small group. Second, the would-be regulator by litigation must be able to coerce a settlement by threatening a catastrophic outcome, which we observed in both our case studies. Third, the ultimate deal must protect the settling firms against new entrants who undercut the settling firms on price because they are not bound by the regulation imposed through litigation.

This last condition offers the one hope for undercutting regulation by litigation. Regulatory outcomes can be imposed on the regulated with little benefit to them, as in the heavy duty diesel case or be pure rent-seeking, as in asbestos and the second wave of silica suits. In every case, however, the deals would be less attractive to the regulated if new entrants can seize market share from regulated by litigation. Legislatures and courts can prevent the evolution of enforcement and tort suits into regulation by refusing to approve settlement provisions designed to prevent entry into markets.

The three of us may not have The Solution to regulation by litigation's flaws, but we are confident that an important aspect of the solution is to promote greater discussion of the phenomenon. We are optimistic that a thoughtful conversation about regulation by litigation among those who agree that it is problematic and those who do not will contribute toward developing measures that address the features that are most troublesome.

Endnotes

1 *See, e.g.,* NLRB v. Bell Aerospace Co., 416 U.S. 267 (1974).

2 Federalist No. 10.

3 William Funk, *Bargaining,* 46 Duke L. J. 1351, 1379 (1997).

4 *See* Eugene Scalia, *OSHA's Ergonomics Litigation Record: Three Strikes and It's Out,* Cato Institute Policy Analysis, *available at* http://www.cato.org/pub_display.php?pub_id=1229.

5 *See* Andrew P. Morriss, Roger E. Meiners, & Andrew Dorchak, *Between a Hard Rock and a Hard Place: Politics, Midnight Regulations, and Mining*, 55 Admin. L. Rev. 551 (2003) (discussing midnight regulations issue).

6 *See, e.g.,* Chevron U.S.A., Inc. v. Natural Resources Defense Council, 467 U.S. 837 (1984).

7 We discuss this in detail in Andrew P. Morriss, Bruce Yandle, & Andrew Dorchak, *Choosing How to Regulate*, 29 Harv. Env't L. Rev. 179 (2005).

8 Our book includes an additional case study of the state attorneys general litigation over cigarettes in the 1990s. We also discuss the tobacco case study in Bruce Yandle, Joseph Rotondi, Andrew P. Morriss, and Andrew Dorchak, *Bootleggers, Baptists, & Televangelists: Regulating Tobacco by Litigation,* U. Ill. L. Rev. (forthcoming 2008) available on SSRN at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1010695.

9 Andrew P. Morriss, "The Politics of the Clean Air Act" in Political Environmentalism: Going behind the green curtain 263, 282-292 (ed. Terry L. Anderson, 2000) (describing allocation of authority in Clean Air Act).

10 N.A. Henein, *Diesel engines combustion and emissions* in Engine emissions: pollutant formation & measurement 211, 211 (eds. George S. Springer and Donald J. Patterson) (1973).

11 *See* Association des Constructeurs Européens d'Autombiles g.i.e., *Test Cycle to measure Emission Levels of CV Diesel Engines: An Industry Note* 4, Table 2 (1994) (summarizing differences in emissions).

12 Nigel N. Clark & David L. McKain, A chassis test procedure to mimic the heavy-duty engine transient emissions certification test, 51 J. Air & Waste Mgmt. Assoc.432, 433 (2001).

13 EPA, Summary and Analysis of Comments to the NPRM "1983 and Later Model Year Heavy-Duty Engines Proposed Gaseous Emission Regulations," 14 (December 1979).

14 42 U.S.C. 7521(a)(3)(C).

15 *See, e.g.,* John H. Johnson, Thomas M. Baines, and James C. Clerc, "Preface" in Diesel Particulate Emissions: Measurement Techniques, Fuel Effects and Control Technology (PT-42) i, i (1994) ("The main driving force for control of diesel particulate and NO_X emissions reductions has come from the need for manufacturers to meet the U.S. Environmental Protection Agency (EPA) mobile source on-highway heavy-duty diesel standards for 1994. The 1994 standards were promulgated in 1985 and were technology forcing.").

16 Kenneth Stadder, *Engines with Brains*, Heavy Duty Trucking (February 1994) 54, 54. *See also Integration of Truck Electronics: A Look at the 90's*, Automotive Engineering (Feb. 1988) ("EPA standards are forcing engine manufacturers to use electronics to meet emissions limits for the 1990s."); George D. Hamilton & Scott Henjum, *Electronics: The Wait is Over,* Fleet Owner (June 1985) 50, 51 (engine manufacturers working on electronic fuel controls "since the late 1970s, when the Environmental Protection Agency first threatened to greatly reduce the emissions from heavy-duty diesel trucks.").

17 As Lee Iacoccoa, then president of Ford, put it in 1976: "If we cannot save ourselves from unrealistic government requirements in fuel economy and emissions, our greatest hope in meeting these requirements is through electronics." *Detroit Finally Wakes Up to Electronics*, Business Week 90, 90 (Issue 2453, October 11, 1976).

18 The *Diesel Engine Reference Book* even refers to a "natural tradeoff between particulate emissions and NO_x" as "one of the critical challenges in the design of diesel combustion systems." Diesel Engine Reference Book (Bernard Challen and Rodica Baranescu, eds.) 93 (2nd ed. 1999).

19 U.S. House of Representatives, Committee on Commerce, Asleep at the Wheel: The Environmental Protection Agency's Failure to Enforce Pollution Standards for Heavy-Duty Diesel Trucks (March 2000).

20 *See* Nigel N. Clark, Justin M. Kern, Christopher M. Atkinson, and Ralph D. Nine, *Factors Affecting Heavy-Duty Diesel Vehicle Emissions*, 52 J. Air & Waste Mgt. Assoc. 84, 84 (2002) ("Presently, the heavy-duty diesel emissions inventory is based on emissions factors developed from certification data gained using a stationary engine dynamometer, and there is no sophisticated accounting for the application of that engine in the vehicle or the nature of vehicle behavior.") and 92 ("All present-day truck emissions values used for inventory prediction rely on the certification data, but... certification data will underestimate NO_X emissions in off-cycle operation.... The real NO_X value in this case was 1.8 times higher than the expected value.").

21 David B. Dreher & Robert A. Harley, *A Fuel-Based Inventory for Heavy-Duty Diesel Truck Emissions,* 48 J. Air & Waste Mgt. Assoc. 352, 352 (1998).

22 Joel Schwartz, *An Analysis of USEPA's 50-Percent Discount for Decentralized I/M Programs,* California Inspection and Maintenance Review Committee (1995) at Appendix A.

23 Chris Bowman, *EPA Off On Diesel Rigs' Emissions? Clean-air Goals May Be Tougher to Meet*, Sacramento Bee (October 18, 1997) (noting air pollution control officials finding that it would be 'politically and logistically improbable' to make up lost emissions controls resulting from mobile source over-emissions from cars and businesses.).

24 *See* Linsey C. Marr & Robert A. Harley, *Spectral Analysis of Weekday-Weekend Differences in Ambient Ozone, Nitrogen Oxide, and Non-methane Hydrocarbon Time Series in California*, 36 Atmospheric Environment 2327, 2334 (2002).

25 *Enforcement: $1 Billion Settlement with Engine Makers Includes Largest Civil Penalty Under Air Act*, 29 BNA's Environment Reporter 1285 (October 30, 1998).

26 EPA estimated that the practice improved fuel economy by 4-8%. *Enforcement: $1 Billion Settlement with Engine Makers Includes Largest Civil Penalty Under Air Act*, 29 BNA's Environment Reporter 1285 (October 30, 1998).

27 Jeff Johnson, *EPA fines engine makers*, Transport Topics no. 3300 (Oct. 1998) 26:1;120.

28 Jim Mele, *Integrating Vehicle Electronics: Plugging into the network*, 92 Fleet Owner 60, 64 (June 1997) (Faced with new heavy-duty diesel emissions standards in 2004, "we're going to need new ECMs by 2003, and it takes about three years for a development program....").

29 David Cullen, *The '02 Engine Decision: High Stakes at Risk*, Fleet Owner 20, 22 (April 2002). As this article on the new engines in April 2002 *Fleet Owner* summarized the problem:

> The negatives already associated with the '02 engines—even before they hit the market—are considerable. First, it's expected that the new technology engine makers will deploy to get down to the requisite EPA emissions limits will add $3,000 to $5,000 to the cost of a new vehicle. What's more, engine makers concede fuel efficiency will likely be compromised and maintenance schedules may have to be modified. Bad as that news is, what is most disconcerting to new truck buyers is the simple fact that they don't know how these new engines will perform, that is, how much they will break down.

Id. at 21.

30 Rhein Associates, Inc. 2006. The future of diesel engines. 11th ed. 37 (2006).

31 Timothy V. Johnson, "Diesel Emission Control in Review," *in* Diesel Exhaust Emissions Control: Developments in Regulation and Catalytic Systems (SP-1581) 23, 29 (2001). *See also* Health Effects Institute, Diesel Exhaust: A Critical Analysis of Emissions, Exposure, and Health Effects 5 (1995) ("reductions in exposure will be gradual because of the long life of existing heavy-duty diesel engines and the extent to which emission reductions will be offset by growth in vehicle use.").

32 *Control of Air Pollution from Heavy-Duty Engines; Proposed Rule,* Appendix: Statement of Principles, 60 Fed.Reg. 45580, 45602-45604 (August 31, 1995).

33 EPA also essentially paid Congress not to object by directing the fines into the federal treasury. As the state of New York, which objected to the consent decrees, noted, those fines could have been allocated for additional NO_X reductions, but EPA chose not to do so. EPA (1999, 87).

34 A comparison of EPA's responses to the comments opposing portions of the settlements with EPA's responses to comments in rulemaking proceedings shows EPA's reduced concern over potential challenges. The responses in the former are shorter and less detailed than EPA's responses to significant comments in rulemakings.

35 U.S. EPA., Memorandum of Law of the United States of America in support of motion to enter Consent Decree and response to public comments, United States of America v. Caterpillar, Inc., Civil Action 1:98CV02544 April 30, 1999 at 38.

36 *See* David Rosner & Gerald Markowitz, Deadly Dust: Silicosis and the Politics of Occupational Disease in Twentieth-Century America 38, 41 (1991) and Alan Derickson, Workers' Health, Workers' Democracy: The Western Miners' Struggle, 1891-1925 40 (1988).

37 Derickson, *supra* note 36, at 42.

38 *See* Joel D. Howell, Technology in the Hospital: Transforming Patient Care in the Early Twentieth Century 104, 108-109, 118-119 (1995).

39 *See* Peter S. Barth, Workers' Compensation and Work-Related Illnesses and Diseases 61 (1980).

40 Rosner & Markowitz, *supra* note 36, at 5.

41 George G. Davis, Ella M. Salmonsen & Joseph L. Earlywine, The Pneumonokonioses (Silicosis) Literature and Laws of 1934 75 (1935).

42 Davis, Salmonsen, & Earlywine, *supra* note 41, at 79 (quoting Employer's Mutual's twenty-fifth annual report).

43 Davis, Salmonsen, & Earlywine, *supra* note 41, at 52; Frederick Snow Kellog, *Silicosis claims—a new problem in the insurance field,* N.J. L. J. (July 25, 1935) at 1; Rosner & Markowitz, *supra* note 36, at 70.

44 Christopher C. Sellers, Hazards of the Job: From Industrial Disease to Environmental Health Science 204 (1997).

45 Davis, Salmonsen, & Earlywine, *supra* note 41, at 33.

46 Alan Schaffer, Vito Marcantonio, Radical in Congress 1 (1966);

Village of Living Dead, Literary Digest 6 (Jan. 25, 1936).

47 Carlton Skinner, *Silicosis Deaths to Hasten Legislation Controlling Occupational Diseases*, Wall Street J., Feb. 29, 1936.

48 *See* Andrew P. Morriss & Susan E. Dudley, *Defining What to Regulate: Silica & the Problem of Regulatory Categorization*, 58 Admin. L. Rev. 269, 313-322 (2006).

49 Borel v. Fibreboard Paper Products Corp., 493 F.2d 1076 (5th Cir. 1973).

50 Stephen J. Carroll, et al., *Asbestos Litigation* v (2005).

51 Carroll, et al., *supra* note 50, at 49, 85.

52 Quoted in Victor E. Schwartz, Mark A. Behrens, & Rochelle M. Tedesco, *Congress Should Act to Resolve the National Asbestos Crisis: The Basis in Law and Public Policy for Meaningful Progress*, 44 S. Tex. L. Rev. 839, 862 (2003).

53 Carroll, et al., *supra* note 50, at 92.

54 Carroll, et al., *supra* note 50, at, vii. Asbestos litigation has costs well beyond the payments by individual defendants. Estimates of job losses from the financial weakening of the defendants range from 128,000 to 423,000 and billions in lost investment capital. *Id*. at 73-74.

55 Carroll, et al., *supra* note 50, at vii.

56 George L. Priest, *The Cumulative Sources of the Asbestos Liability Phenomenon*, 31 Pepp. L. Rev. 261, 268 (2003).

57 Francis E. McGovern, *The Tragedy of the Asbestos Commons,* 88 Va. L. Rev. 1721, 1721 (2002).

58 Carroll, et al., *supra* note 50, at 23-24.

59 Carroll, et al., *supra* note 50, at 56.

60 Francis E. McGovern, *Regulation through Litigation,* 71 Miss. L. J. 613, 618 (2001).

61 In the Matter of Rhone-Poulenc Rorer, Inc., 51 F.3d 1293, 1034 (7th Cir. 1995).

62 John C. Coffee, Jr., *Class Wars: The Dilemma of Mass Tort Class Action,* 95 Colum. L. R. 1343, 1356 (1995). The practice of grouping together claims of people with different symptoms facilitated this approach:

> Through this grouping of claims, the defendants are essentially held hostage. The defendants do not want to risk going to trial on a mesothelioma claim. They do not want the dying person on the stand, with a sympathetic jury and possible liability for punitive damages. So you get the bouquet approach: one rose, a few carnations, and all of the baby's breath settled at once.

Jennifer L. Biggs, *The Scope and Impact of Asbestos Litigation*, 44 S. Tex. L. Rev. 1045, 1053 (2003).

63 Carroll, et al., *supra* note 50, at 30.

64 Christine Biederman, Thomas Korosec, Julie Lyons, and Patrick Williams, *Toxic Justice*, Dallas Observer. *1 (Aug. 13, 1998). Transactions costs have consumed more than half of the spending on asbestos claims, with the majority going to plaintiffs' attorneys' firms. Carroll, et al., *supra* note 50, at, vii.

65 With respect to the bankruptcy process,

> a small subset of the plaintiffs' bar has come to dominate trust operations. These lawyers handle a huge percentage of pending claims; this is critical in light of the §524(g) requirement that a 75% supermajority of claimants must approve any plan. This provides key members of the asbestos plaintiffs' bar with huge leverage in the bankruptcy process, which, in turn, allows them to insist on trust procedures that will ensure their dominance over trust operations.

James L. Stengel, *The Asbestos End-Game*, 62 N.Y.U. Ann. Surv. Am. L.:223, 264-265.

66 Carroll, et al., *supra* note 50, at 47-48.

67 Carroll, et al., *supra* note 50, at 45, 49.

68 McGovern, *supra* note 60, at 616.

69 Coffee, *supra* note 64, at 1365.

70 Coffee, *supra* note 64, at 1350.

71 Schwartz, Behrens, & Tedesco, *supra* note 52, at 867.

72 Lester Brickman, *An Analysis of the Financial Impact of S. 852: the Fairness in Asbestos Injury Resolution Act of 2005*, 27 Cardozo L. Rev. 991. Prof. McGovern commented that

> over the last twenty-five years what we've seen is plaintiff's lawyers [who]... used to get $15 thousand for a wrongful death case. Now what is it? Twenty-five million dollars for a minimal asbestos case. You've got a big pot of money that lawyers have put together, and those lawyers, what are they going to do with it? I used to look at the Silicon Valley folks and I said well, what's the difference between the gazillionaires in Silicon Valley and the tobacco lawyers? And it's pretty much the same. People tend to invest their money in what they know. And so we've seen a lot of lawyers who made a lot of money through tobacco and through asbestos reinvesting that money in HMO cases, in handgun cases, in genetically-modified plants, holocaust, you name it. So we saw an evolution in the plaintiff's bar of slowly but surely putting together the resources where the plaintiff's bar can go toe-to-toe on a financial basis with the biggest corporations.

McGovern, *supra* note 60, at 616.

73 Coffee, *supra* note 64, at 1346.

74 Carroll, et al., *supra* note 50, at 23.

75 Melissa Shapiro, *Is Silica the Next Asbestos?* 32 Pepp. L. Rev. 983, 985 (2005).

76 *In re* Silica Products Litigation, 398 F.Supp.2d 563, 580 (S.D. Tex. 2005).

77 U.S. House. Committee on Energy and Commerce, The Silicosis Story: Mass Screening and the Public Health: Hearings before the Subcommittee on Oversight and Investigations (109th Cong., 2d sess. 2006).

78 Carroll, et al., *supra* note 50, at 122-123.

79 Carroll, et al., *supra* note 50, at. xix.