Perhaps the most difficult problem facing courts and government agencies that regulate risk is how to remedy long-term health hazards. For the most part, government policy has stressed preventive control of these hazards through direct government regulation. In some prominent instances, however, where the hazards did not become apparent until after the fact, thousands of exposed individuals have sought compensation for their injuries through the tort system. Suits involving asbestos victims and victims of Agent Orange are chief among these tort cases.

Agent Orange on Trial, by Professor Peter Schuck of the Yale Law School, provides a dramatic and insightful account of the Agent Orange case. This superb volume gives a blow-by-blow account of the Agent Orange litigation and also draws general conclusions about how society should approach mass toxic disasters.

Originally hailed as a model herbicide and used extensively in Vietnam, Agent Orange allegedly contributed to a wide range of severe illnesses among veterans and birth defects among their children. By almost any standard, the tort action Agent Orange generated was a major undertaking. The case combined 600 separate actions on behalf of more than 15,000 named individuals. There were 7 (originally 24) corporate defendants, plus the involvement of the United States government (though not as a defendant). The case ended in 1985 with the largest tort settlement in history up to that point—$180 million plus interest to compensate the victims and their families.

Schuck examines the implications of three distinctive aspects of the Agent Orange case. First, this was a "mass" tort claim. The thousands of claimants involved, in Schuck’s view, led to a geometric increase in the transactions costs involved in settling the case. The class action approach was thus much more efficient than separate individual suits would have been.

Second, the harm was generated by a toxic substance. Long-term toxic hazards, as opposed to more immediate accident risks, create intractable problems of proof. For example, it was difficult to identify which illnesses could be caused by Agent Orange, and which particular victims of those illnesses were affected by their exposure to the chemical.

Third, this was a tort case, which involved a particular set of evidentiary standards and burdens of proof. Plaintiffs in a tort case must show that the chemical exposure caused the illness; making this link is difficult when the chain of causation is probabilistic and not deterministic.

In setting the context for his analysis, Schuck reviews the scientific properties of Agent Orange. The principal source of the hazard is an unavoidable contaminant, TCDD, which has been called the "most toxic molecule ever synthesized by man."

Schuck also reviews evolving developments in the legal system as they pertain to the Agent Orange case, which makes the volume a self-contained treatise even for those lacking extensive legal backgrounds. For example, he recounts the evolution of the strict liability doctrine and the concept of design defect as they pertain to the Agent Orange case. These changes in the legal landscape greatly enhanced the likelihood that plaintiffs would prevail in such cases.

The bulk of the book concerns specific aspects of the litigation, with Schuck playing the dual role of recounts of events and critic of legal strategies and judicial decisions. Schuck’s description of the litigation process is both compelling and insightful throughout. He writes eloquently about the veterans’ illnesses and their

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efforts to obtain compensation. The focus of his analysis is more on the plaintiffs and the judges than on the defendants. This emphasis no doubt stems, at least in part, from the fact that he was given less access to the deliberations of the corporations involved.

The Agent Orange litigation was initiated by Victor J. Yannacone, a Long Island lawyer. Eventually the group headed by Yannacone developed into a consortium with 8,300 clients and 1,300 associated counsel agreements. Schuck focuses on the group-decision problems involved in coordinating such a massive litigation effort. There was, as one would expect, a substantial struggle for control. At stake were shares of the contingency fee to be awarded by the court. Schuck's work brings to life the common observation that class action lawsuits involve substantial problems of coordination. Rather than simply noting these problems, he explores the roles and interactions of the personalities involved to give the reader a tangible sense of the obstacles to coordination.

The principal missing party to this litigation was the United States government, which, as Schuck observes, sent the soldiers to Vietnam, contracted for the production of Agent Orange, directed the application of Agent Orange in Vietnam, and had responsibility for the troops while they were in Vietnam. Schuck reviews the reasons for excluding the government, particularly the 1980 U.S. Supreme Court decision in *Feres v. United States*, which sustained the federal government's immunity from liability "where injuries arise out of or are in the course of activity incident to [military] service."

Because of the many special problems involved in the Agent Orange case, Judge Weinstein assumed the role of a policy maker rather than merely a judge, making a series of decisions that were vital to the way the case was ultimately settled. An example is his assertion that there was a "national consensus" on three areas of law involved (product liability, government-contract defense, and punitive damages) even though there were many important differences in state laws.

Of perhaps greater interest to the lawyers than the $180 million settlement was their share of the award. In a typical product liability case, the contingent fee provides plaintiffs' lawyers roughly a one-third cut. In a rather dramatic departure from this distribution rule, Judge Weinstein awarded only 5 percent of the total settlement to the lawyers. His decision to both limit the tort award and reduce the share of the award going to the lawyers reflected an apparent desire to discourage groundless mass toxic-tort litigation. Schuck concludes: "Like so many of Weinstein's other decisions in the Agent Orange..."
case, his distribution plan represented a sound (or at least defensible) exercise of policy discretion masquerading as the rule of law.”

The concluding three chapters of the book represent Schuck’s attempt to grapple with the broader policy implications of the Agent Orange case. In particular, how should society handle such toxic-tort problems in the future? Schuck makes a compelling argument that mass toxic-tort cases are not simply large versions of standard tort cases. Rather, they involve factors such as indeterminate causation, spatial dispersion, temporal dispersion, and enormous transactions costs that are not present in, for example, an auto accident case involving only property damage. Schuck concludes that the tort liability system is not well suited to handle mass toxic-tort cases. To the extent the legal system can cope with these problems, it will do so by taking a quite non-traditional role, as did Judge Weinstein. Schuck sees a role for insurance systems and social insurance in providing incentives for risk reduction. He also sees an important role for government regulation.

Since the government did not appear as a defendant in the Agent Orange litigation, Schuck does not examine in detail the government’s various decisions with regard to Agent Orange. Yet, to evaluate the potential for regulation, it is essential to consider the role of the Army and its ability to self-regulate. Schuck could well have written a second book analyzing the Army’s decision to use Agent Orange in light of its knowledge of the herbicide’s toxicity as well as its benefits. Although Schuck’s advocacy of increased reliance on regulation is a sensible approach for other mass toxic risks, it seems less well suited to the risks posed by Agent Orange. Widespread spraying of such herbicides within the context of military conflict is not an area covered by existing regulations, nor is it one the Environmental Protection Agency is in a position to address. Thus, while it is appropriate for the U.S. government to play a minor role in a book concerned primarily with the Agent Orange litigation, it would necessarily be more central in a discussion of the broader policy questions involved.

The Agent Orange case does not provide a blueprint for how such risks might best be addressed in the future is not so much a shortcoming of the book as it is a reflection of the current state of our knowledge in the area. Discussion of mass toxic hazards will dominate the policy agenda for years to come. This insightful and superbly written book will be essential reading for anyone who wishes to participate in this debate.

Insurance Insights


**Reviewed by Howard Kunreuther**

Insurance markets are in a state of crisis. Various kinds of insurance coverage—such as gradual pollution insurance—are drying up while rates on others—such as medical malpractice—are skyrocketing. There is no one culprit in these developments. Recent changes in tort law have contributed to some unusually large settlements in court; poor underwriting practices by insurers have necessitated rate increases; and government policy in the environmental area has imposed special liability provisions that make losses to individual manufacturing concerns difficult to estimate. There will be no simple solutions to the insurance crisis.

Kenneth Abraham’s new book, *Distributing Risk*, helps shed light on some important aspects of the insurance crisis. Abraham explores ways in which insurance can induce individual responsibility by consumers and businesses and thereby improve social welfare. The contribution of this book lies in linking economic analysis with legal processes to evaluate the potential of insurance as a meaningful policy tool.

Abraham’s principal message makes considerable sense: Let the free market operate as best it can, but when it falters rely on other approaches such as regulation, legislation, and judge-made laws. The appropriate program depends on the circumstances. Abraham argues that lawyers, judges, and scholars concerned with insurance need to pay more attention to

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A principal benefit of risk classification is that it avoids costs: a misallocation of insurance because people believe that insurers should not be permitted to use non-controllable variables such as sex, race, nationality, or genetic handicaps in setting premiums. In New Jersey, for example, rates for automobile insurance cannot be based upon sex or certain other factors which affect risk. By restricting premiums in this way society may bear costs: a misallocation of insurance because of mispricing, and a greater overall cost of risk.

Restrictions on the use of controllable variables can cause even more severe distortions because of their effect on incentives to reduce risk. A principal benefit of risk classification is that it encourages loss prevention. In the case of automobile insurance, for example, if premiums are experience rated, safe driving is encouraged. But experience rating is also bound to result in some poor people (those who are high risk) being charged relatively high premiums. To the extent we believe poor people should not have to pay "too much" for insurance (because, if unable to afford insurance, they must either give up driving or drive uninsured), other options may have to be considered, such as assigned-risk pools. With an assigned-risk pool, companies are obliged to take on a share of the coverage of high-risk individuals and are precluded from charging premiums that are fully adjusted for risk. Any movement away from risk-based premiums, however, reduces economic efficiency. As Abraham points out, there may be a basic conflict between a system where rates are based on risk, which is desirable from the standpoint of efficiency, and a system that is evaluated through the political process as fair or equitable.

A point worth noting is that risk-based premiums will be effective only if individuals utilize them in their decision processes. Recent empirical studies by social scientists suggest that consumers do not process information on low-probability events particularly well. People seem to behave as if they believe the potential disaster "will not happen to me." Unfortunately, consumers also appear to be somewhat unresponsive to risk-based changes in insurance rates. A survey of drivers in New York and Pennsylvania, undertaken by the Wharton Risk and Decision Processes Center, suggests that even if the annual automobile insurance premium were reduced by $50, less than one-third of the drivers in Pennsylvania would buy an automatic seat belt that costs $100 to install. On the other hand, almost 70 percent of these same drivers would wear their existing seat belts if insurance companies paid no medical claims to accident victims who were not wearing seat belts. How insurance can be used more effectively to induce loss prevention is a question that warrants further research.

Problems connected with automobile insurance pale when compared with problems in other types of liability coverage such as that for environmental health risks. Abraham devotes an entire chapter to the compensation of victims of injuries from toxic chemicals. His principal conclusion is that traditional insurance is not well suited to deal with these types of risks since insurers are poorly informed about the magnitude of risks and thus about their potential liability. Abraham argues for a package of reforms for dealing with environmental health risks, including bounded compensation, and tort liability coupled with subrogated compensation funds.

When Congress passed the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response Liability and Compensation Act of 1980 (better known as Superfund), it sought to make the insurance industry a watchdog for society. Industrial firms were not permitted to operate unless they could show some type of financial responsibility for potential losses from toxic chemicals. Abraham argues that insurers cannot be expected to play the role of surrogate regulators because they do not have good loss data. If this is the case, as it appears to be, then there is a crying need for this information to be assembled.
When considering the conditions under which private markets will have difficulty providing insurance, it is important to distinguish between two types of information problems: those involving the magnitude of potential losses and those involving the probability of a loss occurring. If insurers are uncertain about the chances of a particular event occurring, they are likely to raise premiums but continue to provide coverage, as long as they are confident of the maximum liability for any policy. It is when insurers are uncertain about the magnitude of their claims in relation to the stated coverage that they are less likely to offer policies at all.

I believe this latter problem is the primary reason insurance coverage in the environmental area has virtually dried up. In a recent case in Jackson Township, New Jersey, for example, a superior court held insurers liable for multi-million-dollar payments for gradual pollution. The court ruled that each of 97 wells contaminated by seepage of toxic wastes constituted a separate “occurrence,” giving each claimant the right to collect damages up to the policy’s limits. The effect was to multiply the insurers’ intended financial risk 97 times. This decision was largely responsible for the withdrawal of many insurers and reinsurers from this market.

What alternative approaches are likely to bring the insurance industry back into this market? One possibility Abraham discusses is the use of claims-made policies, under which insurers are held liable for injuries only if claims are filed during the policy period. These policies would offer more predictability than occurrence-based policies which base liability on the date the injury or disease actually occurs. Another option is government reinsurance which would protect companies from potentially large losses due to court rulings. Other types of arrangements, such as mutual insurance programs among firms in an industry, have emerged in recent months and are likely to become commonplace if traditional coverage remains unavailable.

A key question regarding the viability of pollution insurance is how the courts are determining settlements. One company, CH2M Hill, took an air sample at a plywood plant in California in 1972. They pronounced the air safe, and received a $700 fee. After an explosion four years later, the company was the only financially viable target and had to pay a $1.6 million settlement.

The concept of joint and several liability under the Superfund law means that any defendant in a lawsuit can be forced to pay for damage caused by all defendants. Private insurers are concerned that once they assume liability for pollution they will be viewed as “deep pockets” and will be subjected to very large damage awards. An analysis of the magnitude of court settlements related to pollution damage is extremely important in determining the seriousness of this potential problem. The RAND Corporation’s ongoing study of asbestos claims provides an excellent prototype for just such an analysis.

What role can judges and courts play in helping to clarify and deal with risks? Abraham devotes the latter chapters to this question. He points out that judges and courts generally favor the insured party by operating under the assumption that they are often misinformed, have difficulty obtaining information, and may be deceived. He cites a number of interesting rulings which seem to support this view.

In one case, an individual purchased flight insurance from a vending machine directly in front of a charter airline’s counter. The insured died on a charter flight and, though the insurance she had bought did not actually cover her trip, the court ruled that the insurance company had to pay the claim. The court assumed that the person would not have purchased the coverage if she had been informed that it would not cover her trip. This type of ruling could have positive incentive effects by encouraging insurers to take
steps to reduce the problem of consumer misinformation. For example, different rates could be charged for charters and non-charters, or vending machines could be placed only in front of flights covered by the policies. Alternatively, flight insurance could be issued covering both scheduled and non-scheduled flights.

Another area Abraham considers is the claims process. To ensure that insurers pay the claims that are due, there must be more explicit penalties for breach of contract than currently exist. As Abraham points out, penalties for breach of contract (other than the cost of the claim) give insurers the incentive to settle rather than litigate. He argues that the legal system should clarify the policy obligations of the insured in order to reduce uncertainty for both the insurer and the insured.

Distributing Risk is a stimulating book on an important public policy issue. It raises a set of provocative questions regarding the appropriate role of the public and private sectors in coping with the insurance crisis.

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**Guild by Association**


**Reviewed by Simon Rottenberg**

For generations, some sectors of the working population, competing in the market for public policy, have succeeded in profiting at the expense of others in the community. They have captured the coercive powers of the state to impede entry into their occupations—lobbying for and winning the enactment of state legislation and municipal ordinances that restrict the practice of their occupations to licensed workers.

Occupational licensing statutes must, perforce, define licensed occupations; if only licensed plumbers may perform the tasks of the plumbing trade, the law must set forth in detail what the tasks are that others may not legally perform. Practitioners in licensed occupations, in turn, seek to enlarge the definition of the tasks that they, and only they, can legally perform. The reason is clear: any broadening of the definition of a licensed practice increases the demand for the services of licensed incumbent practitioners, and therefore increases the prices of those services and the earnings they bring.

An interesting competition is observed among practitioners in related trades. Pharmacists object to the sale of prescription medications by physicians and to the sale of over-the-counter drugs by supermarkets and grocery stores. Dentists object to independent practice by dental hygienists, insisting that they be required to work only in the offices—and under the supervision—of dentists. Dental technicians, who make dentures from impressions prepared by dentists, seek permission to work in the mouths of patients over the objections of dentists. Architects and interior designers skirmish over who should be permitted to plan offices, stores, and other interior spaces. Doctors and nurses have long disputed the legal definition of nursing practice; doctors and midwives dispute the definition of midwifery.

Licensing is not, of course, limited to the professions. Writing 30 years ago, Walter Gellhorn reported that threshing machine operators, egg graders, dealers in scrap tobacco, pest controllers, yacht salesmen, tree surgeons, well diggers, potato growers, embalmers, guide dog trainers, and hypertrichologists (who remove unsightly hair) were all licensed occupations in at least one state.

In these and hundreds of similar cases, organized professional groups have sought remedies from legislatures—political institutions which are poorly suited for defining the proper scope of occupational practice. All of these campaigns are rooted in self-interest; all of them make disingenuous claims about seeking to serve the public health, safety, and welfare.

It is revealing that when occupations are first licensed, current practitioners are grandfathered in on the convenient fiction that they are qualified by experience. Only new entrants are required to incur the incremental costs of entry imposed by the licensing statute. These statutes are plainly drawn to produce economic rents for the practitioners who lobby for their enactment.

Over the last three decades economists have done considerable research on the effects of occupational licensing, most of it in the positive, predictive tradition of the discipline. The predicted effects have been tested empirically and
found to be robust: prices and earnings rise in licensed occupations; economic rents are earned by incumbents who do not confront increased entry costs while earnings are "normal" for those who confront entry costs; the number of practitioners is diminished; superfluous and wasteful human capital is formed; allocational distortions accrue since highly-trained practitioners must be employed to render services that could be competently performed by others of lower skill and less training; the improvement in service quality is ambiguous since higher prices induce consumers to "do-it-yourself;" and the mobility of practitioners is diminished and their geographical distribution is skewed.

Occupational licensing, in other words, promotes the interests of licensed practitioners at the expense of consumers, of those who aspire to enter the licensed trades, and of those who produce complementary services.

The pattern of winners and losers makes occupational licensing a classic example of applied public choice theory. The number of practitioners is small, as is the cost of their forming a coalition. Each stands to reap large gains from the licensing of his occupation. On the other hand, the number of people who will suffer losses is large while the loss each will suffer is small. In the competition for the use of the state's power to compel, public choice theory's prediction that the few can vanquish the many is confirmed. Legislatures are unmoved by economists' findings that licensing advances private interests at the expense of the community. Occupational licensing survives and is extended to additional crafts, trades, and professions.

S. David Young's book, The Rule of Experts: Occupational Licensing in America, is a comprehensive review of the literature on the economics of occupational licensing. It relates the history of occupational licensing, the various forms of licensing, the behavior of licensing boards, and the economic effects of licensing.

The book, which grew out of Young's doctoral research in business administration at the University of Virginia, is a balanced and full exposure of the literature. Since that literature almost unanimously reports that occupational licensure has pernicious efficiency effects and serves as an instrument of exploitation by the few it favors, Young also comes down on that side. Yet, he also examines a recent dissident literature driven by Professor George Akerlof's article on "lemons" in the used car market.

Akerlof's paper, and others that apply its theoretical propositions to the labor market, argue that where there is asymmetry in the distribution of information, the quality of available commodities and services will be sub-optimal. When sellers are fully informed about quality and buyers are badly informed and unable to distinguish high from low quality, it is argued, prices will be driven to levels that induce only low-quality goods and services to be supplied. Therefore, as applied to occupational practice, high-quality service will be available only if the public authorities establish and enforce a minimum standard for entry into occupational practice.

The dissident argument has some analytical merit—in the sense that it might have predictive power in a hypothetical world—but it has limited empirical relevance for most real-world markets. It is true, of course, that sellers are specialized and, in most markets, know more about the quality of what they have to sell than do buyers. Informational asymmetry appears to be ubiquitous. But for most commodities and services, an array of "models" is offered, with high-quality and low-quality models priced accordingly. Also buyers may be better informed than we realize. They may be informed through surrogate specialized buyers (for example, buyers in department stores) or through word-of-mouth regarding the reputations of sellers and the quality of their products. The mere survival of firms tells buyers something about the qualities of goods and services they produce.

The empirical irrelevance of the dissident literature seems obvious on its face. But even if I am wrong and the unequal distribution of information has adverse economic effects, the appropriate remedy would not be licensing. It would be certification of the skills possessed by each practitioner, which does not require action by the state. A private market for certification of skills should generate a socially optimal quantity of information for buyers.

Milton Friedman stated the case against occupational licensing powerfully and succinctly in Capitalism and Freedom:

The great argument for the market is its tolerance of diversity; its ability to utilize a wide range of special knowledge and capacity. It renders special groups impotent to prevent experimentation and permits the customers and not the producers to decide what will serve the customers best.