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# Readings

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## **The Regulatory Quest for Safety at any Cost**

### **Collision Course**

by Ralph Nader and Wesley J. Smith  
(McGraw Hill, Inc., 1994), 378 pp.

### **Reviewed by John R. Lott, Jr.**

The proregulation fearmongers are back. This book provides readers with a steady stream of horror stories about airline accidents and vainly attempts to make a logical leap from those stories to the conclusion that airline deregulation was a failure and that new controls are necessary. Yet, despite the book's mental gymnastics, the authors never effectively confront the fact that air travel is safer today than before deregulation.

Several times the book cautions the reader not to be taken in by the improved safety records under deregulation. After all, they argue, even if an accident was avoided or the passengers did survive a crash, if the plane had only turned in the other direction or had broken apart earlier, people could have died. We are continually treated to statements such as, "The 292 passengers who escaped with their lives are not part of the mortality statistics. Yet, had the plane crashed after getting only a little higher into the air, there might have been no survivors." Nader and Smith assume that good luck is to be ignored, while bad luck is to be exaggerated.

Their discussion of whether aircraft fleets are aging and the possible effect of this aging on safety is fairly typical of what passes for rigorous analysis in this book. The authors empha-

size a particular case or two (in this instance the tragic Aloha Airlines crash in 1988) and play it up as somehow representative of the effects of deregulation. Surely the authors know that equipment failure caused crashes in earlier days, and will continue to do so no matter how much we regulate the airlines. Instead of hyping a couple of cases, any reasonable discussion should start by comparing the rate of airline crashes due to equipment failure before and after deregulation. The authors fail to do this. Whatever the reason for this obvious oversight, data from the National Transportation Safety Board show that total accidents due to equipment failure per million departures fell by a dramatic 71 percent after deregulation.

In fact, accidents due to causes over which airlines had control declined more than accidents from any other source. Reading this book one would never guess that three of the world's safest airlines are American (Delta, American, and Southwest).

Nader and Smith continually misconstrue economic research that explains why firms are motivated to provide safe travel even without busybody bureaucrats looking over their shoulders. The reason is simple: airlines want to make money and potential customers avoid flying on an airline after one of its planes crashes. The studies Nader and Smith inaccurately describe find this reputational effect rather significant: the 34 "pilot error" crashes between 1964-87 reduced the airline's stock market value by an average of \$23 million to \$33 million in current dollars. Curiously, Nader and Smith forget to properly reference those studies so that interested readers could further investigate their claims.

The authors direct a large part of their anger at President Ronald Reagan's executive order that required new safety regulations to undergo a cost-benefit analysis. It is without a doubt the single most mentioned topic and one of the least

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accurately covered—economists and government regulators would have a hard time recognizing the process that Nader and Smith allege exists. Their mistakes rang from relatively minor ones, like the claim that if the costs of the new rule exceed the benefits “the rule cannot be implemented,” to outrageous inaccuracies, like claiming that the evaluations ignore the costs people suffer from being crippled.

While this book’s publication was timed to coincide with the August release of a Presidential Commission’s study of the airline industry, it is difficult to believe both reports are describing the same industry. The Presidential Commission’s study does have complaints about air transportation in America, but its criticisms are not directed against poor safety records or price-gouging fares. On the contrary, it lavishly praises the safety improvements and lower fares produced by deregulation. While Nader and Smith call for more intrusive regulations and larger government agencies, the Presidential Commission points to government as the problem. To the Commission, the U.S. air transportation system is being “hobbled” by “government-mandated attitudes and policies that are dysfunctional and deprive the system of its natural potential to be a more powerful engine for the nation’s economy.”

Nader has written elsewhere that “information is the currency of democracy. Its denial must always be suspect.” But he apparently believes that statement should only be applied to others. This is not the book to read if you like to double-check an author’s claims—there are no footnotes to provide the sources for their “facts.”

Robert Crandall, the chief executive officer of American Airlines, best characterized the type of solutions Nader and Smith propose for the airline industry: “Suppose [regulators] said, ‘We don’t want you guys to lose our bags anymore. And every time you lose a bag we’re going to fine you a million dollars.’ Well, I can fix that tomorrow morning! We will never lose another bag. But it will be very inconvenient to travel. Today you come into Dallas-Fort Worth from all these different places, and in 45 minutes you make your connection and you go out. But in the world of the future, where bags are never lost, I’m going to keep you there for three hours, because I’m going to make sure I get every bag.”

In Nader’s world, we will all fly in the newest bomb-resistant planes with the best evacuation

and flotation devices. Government regulators will continually test and certify planes extensively each time before they fly. There will be only one minor drawback—airfares will be so high that only multimillionaires will be able to fly.

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## Where Science and Policy Meet

### **Scientific Literacy and Environmental Policy: The Missing Prerequisite for Sound Decision Making**

by Dorothy J. Howell  
(Quorum Books, 1992), 175 pp.

### **Toxic Terror: The Truth Behind the Cancer Scares**

by Elizabeth M. Whelan  
(Prometheus Books, 1993), 463 pp.

### **Using Economic Incentives to Regulate Toxic Substances**

by Molly K. Macauley, Michael D. Bowes, and Karen L. Palmer  
(Resources for the Future, 1992), 133 pp.

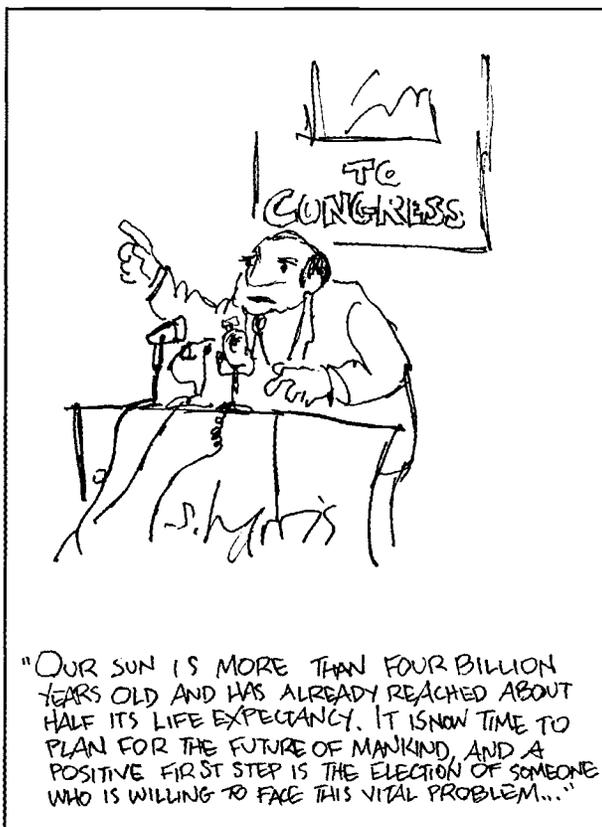
### **Reviewed by Jonathan H. Adler**

Americans will spend over \$150 billion on pollution control in 1994. A significant portion of that will be devoted to reducing environmental risks posed by chemicals and toxins, and the Clinton administration’s interest in pollution prevention and toxics-use reduction is sure to make that portion grow. Despite those tremendous expenditures, it is unclear how much risk reduction all this money really buys. A consensus is growing among environmental analysts that we are spending too much, but getting too little. What can explain the sorry state of affairs?

Dorothy J. Howell, a professor at Vermont Law School, seeks to address this question in *Scientific Literacy and Environmental Policy*. Her thesis is straightforward: “There is little hope for sound policy formulation [in the environmental arena] until nationwide scientific literacy is actively practiced.” Perceptions and reality are at odds in environmental policy. Public

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demands are disconnected from real needs. Only increasing public awareness and understanding of scientific issues, Howell argues, can "enfranchise" the public to overcome "private agendas, remote science, unresponsive markets, obtuse government, and pervasive distrust."

The American public's scientific understanding has not kept pace with technological advances. As a result, political constituencies often make demands upon the scientific community that cannot possibly be met. When a child is stricken suddenly with leukemia or some other malady, parents want an explanation. Yet, as Howell notes, such answers are often beyond science's reach: "Science simply does not know the specific causes of most cancers, heart attacks, and other conditions." As an example, Howell discusses Agent Orange, the defoliant used in Vietnam that has been blamed for miscarriages, cancers, and other afflictions. Yet extensive scientific research has never been able to prove a link between the potential exposure of Vietnam veterans and later illnesses—illnesses that are also all-too-frequent in populations that have never been near Agent Orange.

When the scientific process is incapable of

providing the definitive answers demanded by the lay public, politics enters the picture. In the case of Agent Orange, when studies failed to link the defoliant with the ailments suffered by veterans, politicians and veterans' organizations cried foul. The political process took over, to the detriment of science-based policymaking.

A similar phenomenon occurs at the Food and Drug Administration (FDA) in its handling of new drugs and technologies, such as biotechnology. In this instance, the lay public demands that the FDA use science to provide "safety" in the drug approval process. Yet, as Howell notes, "it is possible to ban all drugs and all testing of drugs in the name of safety or in pursuit of the unreachable absolute safety." Politically, it is easier for the FDA to withhold the introduction of new products, rather than risk blame for an approved drug that fails to work completely as promised. Interest groups, often claiming to represent the public at large, often distort what science has to offer to the decisionmaking process.

Scientific illiteracy is certainly an impediment to informed public participation in environmental policy. In turn, "general illiteracy is certainly a fundamental impediment to scientific and technological literacy." Their lack of scientific understanding means that the lay public is easily led astray on scientific matters with policy applications.

Documenting the spate of misinformation—misinformation that has typically encouraged the expansion of government regulatory authority—is the purpose of Dr. Elizabeth Whelan's *Toxic Terror: The Truth Behind the Cancer Scares*. Whelan, president of the American Council on Science and Health, is troubled that "the overwhelming majority of the news we get from radio, television, and the print media about health and the environment is bad news—generally, very bad news." That bad news, in turn, leads to the formulation of environmental policy. Rarely is it considered "that national health statistics indicate that we have never been healthier." Inefficient and misdirected environmental policy, argues Whelan, results largely because "self-serving individuals and organizations," from environmentalists and Naderites to the sensationalist press, "twist public health issues for political motives" or an increase in circulation.

*Toxic Terror* makes a strong case. Using a dozen or so environmental scares as examples,

Whelan straightforwardly lays out the charges and the established facts. In the case of pesticides, for example, Whelan juxtaposes fears of carcinogens in the food supply with the scientific evidence on the subject. "Our nation's children are being harmed by the very fruits and vegetables we tell them will make them grow up healthy and strong," claims the Natural Resources Defense Council. Yet, Whelan notes, "There is no evidence that current levels of pesticide residues in food are causing any acute or chronic adverse health effects in the U.S. population."

Whelan analyzes a wide range of "toxic" issues, from power lines to PCBs, dioxin to daminozide. In each instance Whelan weighs the evidence and presents a reasonable, informed judgment. No, Americans are not suffering from a cancer epidemic brought on by industrial society. Claims to the contrary are simply not true. Ralph Nader's Public Citizen may raise funds by charging that "nowadays the most deadly epidemics are man-made," but, as Whelan argues, the fact of Americans' vitality can not be disputed. "*Americans today are healthier than ever before.* Modern technology has succeeded in drastically reducing the health risks to which we are exposed and preventing the deaths of many of those who become ill or injured. . . . On the whole, the health benefits of modern technology have far exceeded the costs, despite what the poisoned press tells us" (emphasis in original).

Whelan lays much of the blame for widespread misunderstanding of environmental problems at the feet of an overeager press and environmentalist leaders that abuse their positions of authority in American society. "The environmentalist, without environmental problems, does not have a job," she notes cynically, and in the press, "bad news is good for business." To this, Howell might add that in previous policy debates "the scientific community maintained a kind of aloof disdain." Whelan would certainly agree. In her view, "the problem is solvable if scientists become more aggressive in defense of their profession and more active in challenging misinformation." One problem today is that the scientific "experts" routinely served up on the evening news are rarely representative of the scientific community as a whole.

Whether the lay public and existing political institutions accurately assess toxic threats to

human health and the environment or not, government regulation of the use, management, and disposal of potentially hazardous substances is a given at the present time. That being the case, Molly Macauley, Michael Bowes, and Karen Palmer investigated whether the federal government's regulatory objectives can be achieved at a lower cost. In particular, they consider whether "marketlike, incentive-based approaches . . . might serve as desirable, cheaper alternatives to more traditional command-and-control."

Their examination in *Using Economic Incentives to Regulate Toxic Substances* proceeds through four detailed case studies of specific substances: chlorinated solvents, formaldehyde, cadmium, and brominated flame retardants (BFRs). One size does not fit all with toxins; the optimal regulatory strategy depends on the specific nature and use of any given toxic substance. Indiscriminately lumping classified "toxics" together in the process of regulation is not only haphazard, it can even be counterproductive in the pursuit of a cleaner and safer world. In the case of BFRs, for example, "it is not altogether clear that non-BFR substitutes will be less toxic. Nor is it clear that any new BFRs will be more toxic than non-BFR substitutes." Macauley et al. are careful to point out that improperly designed regulatory strategies, based on economic incentives or not, can have unintended consequences that compromise the goals of the regulatory program. Given recent discussions on the phaseout of whole classes of chemicals, such as industrial organochlorines, that is a concern that cannot be taken lightly.

The authors point out that "there appears to be no 'one-size-fits-all' incentive-based regulatory prescription for the whole of toxic substances." For various products and chemicals, Macauley et al. would recommend some combination of product or emission taxes, deposit-refund systems, tradable emission permits, and mandatory labeling requirements. The goal in each case is to "internalize or capture cost-effectively . . . the health or environmental side effects that are generally reflected in the market prices of these chemicals." Thus in the case of cadmium, the authors consider a cadmium input tax. "If the tax were set at the correct risk level," they suggest, "then a socially optimal outcome would be conceivable."

Saying such an outcome is conceivable, how-

ever, is far from making it possible or even likely. As Whelan and Howell point out, there is much uncertainty and debate about the health and environmental impacts of regulated toxic substances. In the case of chlorinated solvents used by dry cleaners, different states have set different permissible workplace exposure limits. That disparity reflects, in part, the lack of concrete information delineating safe from dangerous exposures. Yet the social costs cannot be measured and properly accounted for through "marketlike" approaches without such information. What is more, even should such scientific information become available, the tasks of calculating the true social cost and designing a regulatory system to account for those costs—without generating social costs of their own—are insuperably difficult if not impossible.

The economic incentive schemes discussed in *Using Economic Incentives to Regulate Toxic Substances* hold significant potential to reduce the economic costs of regulatory compliance. However, if they result in "socially optimal outcomes" it will be as much the result of chance as of deliberate design.

The larger issue at stake is to what extent the

regulatory regime should christen substances as "safe" or condemn them as incurably "toxic." Howell cites the argument that "science in a policy setting is always colored by values." Those values about the nature of risk, and to what extent individuals can voluntarily assume chemical and other risks, are the true central concern. The "toxic terrorists" that Whelan castigates are largely motivated by value judgments about technology and industrial society at large. Similarly, the judgment as to whether it is better to introduce a potentially toxic pesticide into the environment or to allow crop yields to stagnate is, in part, a question of competing values; the value of change vs. the value of stability.

All of these books suggest, albeit in different ways, that the current reliance on the political process to resolve value questions produces undesirable effects. Science policy is not squarely based on science; products are condemned on political grounds as much as on valid health concerns; and regulatory restrictions are rarely designed in the most efficient and cost-effective manner. The current politicized approach needs to be reconsidered. The alternatives are not explicitly clear. The need for their exploration is.