Readings

Risk Managers: Smoke Gets in Their Eyes

Fatal Tradeoffs: Public and Private Responsibilities for Risk
by W. Kip Viscusi
(Oxford University Press, 1992), 306 pp.
Smoking: Making the Risky Decision
by W. Kip Viscusi
(Oxford University Press, 1992), 170 pp.

Reviewed by Lester B. Lave

Risk management decisions are of ever-increasing concern to the public: pesticide residuals in food, tiny amounts of toxic chemicals in drinking water, occupational exposure to toxicants, and environmental releases from Superfund sites and toxic waste incinerators are among the current hot-button issues. But the policy debate over risk management remains controversial and confused. There is little agreement on the roles that should be played by individuals, employers/manufacturers, and government. Even among economists there is no agreement on the importance of externalities, whether or not individuals are sufficiently well-informed to make good decisions, and what values to use in benefit-cost analyses.

In these books, Viscusi asserts that risk management decisions should be primarily individual and that the government's role should focus on providing information. He presents analyses showing that individuals are generally informed about risks and appear to make consistent decisions. He reminds us that making a decision we disagree with doesn't make a person irrational or uninformed.

In particular, *Smoking: Making the Risky Decision* can be viewed as a long defense of the role and ability of individuals to make reasoned decisions about whether to smoke cigarettes. Viscusi is incensed that the federal government prevents cigarette companies from competing on the low tar content of their cigarettes. He is critical of the government's decision that safe cigarettes are foolish. For an economist thinking about marginal tradeoffs, a slightly safer cigarette means that one can smoke more at the same level of risk.

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Both books are collections of previous journal articles stitched together into coherent books. *Smoking* is more successfully integrated than *Fatal Tradeoffs.* A hard-nosed editor would have excised some material from both books; and Viscusi should have rewritten all the material in *Fatal Tradeoffs*. But any problems with these books—which should be read together, as *Fatal Tradeoffs* is incomplete without the extended example of *Smoking*—are small compared to their value.

The first critical policy decision in risk management is whether individuals and a competitive market are capable of handling risk without government intervention. Viscusi doesn't seem to regard market failures, such as externalities, as important. Indeed, much of his work has focused on inferring the value workers put on premature death by examining their decisions concerning the risk premium in wages they demand to accept a risky job.

Viscusi thinks that individuals rather than government should decide how risky jobs ought to be. He is critical of the Occupational Safety and Health Administration (OSHA) for focusing on risks that workers can observe easily instead of those that they cannot recognize. He criticizes both OSHA and the Consumer Product Safety Commission (CPSC) as being either ineffective, or barely effective.

Smoking makes this argument more clearly: Viscusi believes that individuals can and should make their own decisions about smoking, even though it is addictive behavior. Viscusi sometimes praises government provision of information, as with the Surgeon General's reports on smoking, but he consistently criticizes regulation. Viscusi is critical of decisions made by OSHA and CPSC; he details problems with OSHA's cotton dust analysis. He shows that CPSC's decision to put safety caps on aspirin and pharmaceuticals actually led to an increase in children being poisoned, presumably because adults took less care or left off the caps entirely.

There is much scholarship that shows the inefficiency and even ineffectiveness of command-and-control regulation. Some of these risk management regulations seem absurd: "The current leader in profligacy is a regulation of formaldehyde exposures with a price tag of $72 billion per statistical life," writes Viscusi. Government-provided information, however, is no panacea. For example, CPSC went from directly regulating products to "regulation by news conference," wherein they call in the media to single out a product or manufacturer as unsafe. The resulting drop in sales often convinced companies that they would do almost anything the agency wanted to head off the news conference. While I think the Administrative Procedures Act leans too far toward due process, regulation by news conference is a disaster. Is there any assurance the manufacturer has had an opportunity to convince the agency it is wrong? Is there any place where the agency's data and analysis are displayed? Even a product no more dangerous than average is unlikely to survive ordeal by news conference.

Providing information is more difficult than might be supposed. For example, the cars experiencing the fewest crashes are those driven by suburban matrons with small children; the "most dangerous" cars are those driven by teenage males. Few analysts are sophisticated enough to attempt to control for the driver and conditions of use, *e.g.*, the safety of station wagons compared with muscle cars. *Consumer Reports* has done some arbitrary analyses in cases not involving safety. Safety information is multidimensional; no one ever seems to have the information that is directly relevant to *me* and the circumstances under which *I* use a product.

The centerpiece of the book is Viscusi's analysis of the expected value of premature death. Viscusi shows that the actuarial value differs by the magnitude of risk at issue and by decisions that individuals have made that imply their degree of risk aversion. For some years, Viscusi has been the spokesman, often in opposition to conventional wisdom, for a very large value. His studies of workers find that for risks on the order of 1/10,000 per year, workers require compensation greater than

$1,000 per year to take the job and accept the risk. Viscusi argues that the actuarial value of premature death should be taken to be more than $10 million. No government agency uses a figure that high, and few analysts join Viscusi in embracing this number. Agencies that use an explicit number, such as the Department of Transportation, use a number perhaps 10 percent as large.

I find it problematic to use so large a figure in benefit-cost analysis. For example, if this figure were used, small cars would be banned as being too unsafe. Certainly if government agencies are making the decisions, using Viscusi's figure would lead to much more activist policies. Since Viscusi doesn't seem to want that, I infer that he is providing advice to manufacturers concerning what level of safety to design into products. However, unless consumers are ill-informed, and Viscusi doesn't believe that they are, they are currently making many decisions that imply an actuarial value of premature death much smaller than $10 million.

At any rate, economists should stop using the term "value of life." Everyone except the subspecialists misunderstands what the term means. We are not trying to put a dollar value on the social or political worth of an individual; we are trying to find how much society is willing to spend to lower by a tiny amount an already small risk of premature death. Economists such as Viscusi seem to take delight in using a term that lawyers and policy makers misunderstand. As *Alice in Wonderland* reminds us, we can make words mean whatever we want them to mean—as long as we aren't trying to communicate with others. When we are attempting to communicate, it behooves us to stop using a phrase that everyone misunderstands.

In *Smoking*, Viscusi stands in defiance of the usual belief that rational, informed people would not smoke. He describes three archetypical smokers: 1) the rational individual who is fully informed, 2) the "stylized" smoker who is ignorant of the risks and unable to use risk information in any case, and 3) the smoker with cognitive limitations. The book hacks away at the second archetype, showing that people, both smokers and nonsmokers, have relatively good information about the dangers of smoking. Viscusi stops well short of concluding that smokers are "rational," in part because he concludes that people vastly overstate the risks of lung cancer—actually, if one interprets lung cancer to refer to all smoking risks, people are amazingly close (on average) to the experts.

Viscusi finds that risk-taking behavior with regard to smoking is closely related to risk-taking behavior in job choice and seat belt use. A rational model of risk taking is consistent with the data, but so are other models. For example, a "rebellion against society" model would predict that rebels smoke, don't wear their seat belts, take dangerous jobs, ride motorcycles, etc. The "straights" would do none of these things.

Viscusi uses the rejection of the ignoramus model to urge that government do a better job with risk communication. He warns against exaggerating warnings on cigarette packs or making smoking seem more harmful than it is. He is bitter about government policy favoring eliminating smoking, which stopped the competition among companies to produce and advertise low-tar cigarettes and stopped companies from marketing safer cigarettes.

Risk communication research suggests that these three views are an insufficiently rich picture of the cognitive maps of risk takers. Certainly there are some "rational" smokers and some smokers incapable of using the public information, but the vast majority have mental maps unlike either view. Designing a message that would be most useful to Viscusi, a decision analyst quite expert on the science, would not be helpful to most smokers. Risk communication is too important to be left to public relations/advertising specialists or nuclear engineers who know little about the cognitive maps of smokers or how data will be interpreted—or indeed, whether it will be read.

Viscusi professes not to understand the repetition and escalation of cigarette warnings; this is a somewhat naive view about the role of risk communication. Along with presenting information, risk communication is also attempting to remind people of the nature of the tradeoffs. People do things they had previously decided not to do—because they "forgot" or because the momentary pleasure seemed to outweigh the future consequences. All of us find that reminders help us to reinforce the behavior we desire.

Viscusi's books advance the theory and practice of risk management. He successfully demonstrates that workers and consumers have a good deal of information about some risks they face; he doesn't assert that they are knowledgeable about all risks. Demonstrating that people do not make terrible risk management decisions is not proof that they make "good" decisions, where good might be defined in terms of individual regret or social acceptance. He leaves us with the conundrum of what value to use for a benefit-cost analysis of preventing premature death. These books are certain to fuel further fruitful discussions on the topic of risk management.