

Comments by Chris Dockins on

“Using Estimates of the Value of a Statistical Life in Evaluating Regulatory Effects”

(by Donald Kenkel)

My goal here is not to recapitulate the state of the literature or to outline a detailed conceptual framework for discussing the subject of health risk valuation in the context of food safety. Rather, I'd like to give you the perspective of someone inside a Federal agency facing these challenges in applied work. Dr. Kenkel provided an appropriate starting point for our discussions over the next few days, and the two fundamental propositions he submitted are sensible: the value of similar risks should be similar; the value of different risks should differ. I hesitate to use his exact words “the same risk should be given the same value” because in my capacity I have found it valuable to always be conscious of the language we use to discuss economics with non-economists. It is certainly a convenient shorthand to say that we “give values” to risk. It is shorthand that we use frequently to mean, “we expect to observe individuals to value similar risks similarly.” However, when we say that we should “give” values to risk some might infer that these values are ours to give. In fact, they are ours only to observe and to estimate, if we can.

In any case, the most pressing question for an economist inside a regulatory agency is not whether we should follow through on these propositions, but whether we can, in practice, do so. I submit to you that this is not as simple as it may appear.

The subject of consistency in valuation of health risk reductions has come to the fore in EPA as we have undertaken efforts to revise our Guidelines for economic analyses. As part of this process we established an Economic Consistency Workgroup to assess how we can approach these questions more consistently than we may have done in the past. The conversations of the workgroup made it clear that different offices within EPA had approached these questions in different manners, in no small part because of the variety of statutes and requirements under which they operate. For example, the 1996 amendments to the Safe Drinking Water Act allow, for the first time, the consideration of benefits and costs in setting maximum contaminant limits. The amendment even specifies that benefits are to be measured in terms of willingness to pay. The Clean Air Act, on the other hand, does not allow for considerations of benefits and costs in setting ambient air quality standards. These are familiar examples to many of you.

These varying requirements affect the decision processes in the program offices, including the types of information seen and considered in decisionmaking. I don't know the details of the statutes under which FDA and other Federal agencies operate, but if such diversity exists within

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a single agency, a more thorough review of statutory requirements across the Federal Government would surely reveal even greater variation.

This diversity is reflected in the decisions made by Federal agencies. A relatively recent review of the cost-effectiveness of these regulations labels these investments as “haphazard.” This struck me as curious so I turned to my *Webster’s II New Riverside University Dictionary*, the one given to me when I came to work for EPA and with “Property U.S. Government” stamped in gold across the cover, and looked up the word. There is only one definition, “dependent upon or marked by chance.” I don’t fault the authors for their choice of title because it obviously served its purpose, getting me among others to read the article and think about it afterward. But the decisions analyzed are by no means haphazard. Instead the implications of regulatory actions are carefully considered before a final decision is made. I would like to see an estimate of the mean number of hours that go into analysis and consideration of EPA regulations. My guess is that it would be in the thousands. No, the investments are not haphazard. One may argue, however, and this is what the authors do, that the individual investments are not efficient, and that, taken together, they are not the most cost-effective use of resources. That is, they are not economic.

I note this only because it serves to underscore the importance of considering the context in which such regulatory decisions are made. Those of us who would like to see economics play a larger role in these decisions do ourselves no favors by downplaying these contexts. In fact, a better understanding allows us to make our case more convincingly and credibly.

Nor does the lack of economic considerations in some regulatory decisions let us “off the hook” in our economic analyses. Actually, I believe that it does just the opposite, placing an even greater burden on us to demonstrate that applied economic work, especially the analysis of health benefits, can lead to better decisions. But to do this we must demonstrate that we can do economics well – or, at least, that our analyses are consistent with one another and with theoretical expectations. We must demonstrate that we can produce reliable, sensible estimates for health benefits.

Can we do this for a variety of types of health risks? Can we produce analyses that value different risks differently?

Recently, EPA raised this issue to its Science Advisory Board for their consideration. Specifically the issue was how we may value reduced cancer fatalities given that we don’t know much directly about how people value these kinds of risks.

The EPA produced a white paper that intentionally extrapolated beyond the existing literature on the subject. The white paper drew on speculative conclusions drawn from Revesz (1999) and other studies that have pushed this particular envelope in the field of valuing health risks. In comparing cancer risks (which we know little about) and accidental fatality risks (which we know much more about) the white paper enumerated many differences in risk characteristics (e.g., dread, voluntariness and controllability, the timing between exposure and death, morbidity periods prior to death) and population characteristics (e.g., age, income, health status).

The question put to the Committee was what could we do empirically in a benefit cost analysis to account for these factors? In the opinion of the SAB the only thing we can do empirically to date is to adjust for a latency period through discounting. Some of the other factors were identified as potentially or theoretically important, but lacking the empirical research necessary to be included into the valuation of reduced cancer risks.

I don't necessarily disagree with the conclusions of the Science Advisory Board. In most cases there is precious little empirical research to rely upon in accounting for these factors, despite the fact that psychometric factors that affect the perception—and perhaps the value—of risk have been studied for over 20 years in the cognitive psychology literature. The conclusion of the Science Advisory Board highlights the fact that we have a great deal of work to do before we are able to systematically and appropriately value different risks differently.

We should not give up hope on this, but should instead accept this conclusion as a call for additional research. I know that several empirical studies that may provide some insight are underway even now and I hope that many of the questions will be much clearer when the results are considered. But perhaps this also tells us that, on a practical level within Federal agencies, we should focus on the first proposition of valuing similar risks similarly. My experience suggests that even this seemingly simple task is not without its challenges. However, we have the ability to do this now—or at least to make a credible start. We must move down this path if we wish to make a sincere case that benefits analysis play a serious and substantive role in policy decisions.

References

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