

**Pricing Lives: Guideposts for a Safer Society**

W. Kip Viscusi. 2020. Princeton, NJ: Princeton University Press. ISBN 978-0691208596, \$24.95 (paperback)

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I am currently visiting family, and *Pricing Lives* caught the attention of a family member. After reading the back cover, she declared: “That seems a bit cultish.” In similar fashion, my students are often surprised and sometimes appalled when first told that many economists advocate for assigning a monetary value to human lives. While the idea of the “value of a statistical life” (VSL) is familiar to most economists, Christian economists may wonder whether the theory, estimation, or application of the VSL ever conflicts with the Christian conviction that every person is made in the image of God.

In *Pricing Lives*, Kip Viscusi provides a helpful guide for those seeking a deeper understanding of the VSL and why it is considered a useful tool. While not the primary focus of the book, Viscusi also claims that the use of the VSL is the ethically responsible approach when governments and companies make decisions that involve risks to human life.

Chapter 1 describes how the VSL came to play an important role in regulatory decisions. As a primary benefit of many regulations is a reduction in mortality risks, so many regulatory decisions require assigning either an implicit or explicit value to the expected lives saved. An executive order by President Reagan in 1981 required that all new federal regulations undergo an explicit cost-benefit analysis. Initially, some regulators valued the benefit from expected lives saved using the “cost of death” approach, which is based on medical costs and lost earnings. When the Department of Labor asked Viscusi to resolve a dispute over the cost-benefit analysis performed for an Occupational Safety and Health Administration (OSHA) regulation in 1982, Viscusi convinced all involved parties that the agency should value mortality risk reductions using workers’ willingness to pay for the risk reductions rather than using the cost of death approach. Applying the VSL dramatically increased the estimated benefit of the regulation. Following OSHA’s adoption of the VSL, other agencies began to value mortality risks using the VSL and the use of the VSL has become standard practice.

Chapter 2 provides details on the estimation of the VSL. Many studies use the Bureau of Labor Statistics’ Census of Fatal Occupational

Injuries and labor market data to estimate workers' willingness to trade off wages with accidental fatality risks. Most regulatory agencies in the US base the VSL in their analyses on such estimates. It is also possible to estimate the VSL using prices for products with differing levels of safety, but estimates from these data tend to be more volatile. An alternative approach is to use a survey to elicit how much people are willing to pay for mortality risk reductions. In some countries, such as the United Kingdom, regulatory decisions are based on such stated-preference estimates.

In Chapters 3 and 4, Viscusi argues that the VSL should play a more prominent role in firms' decisions about product safety. The general idea is that "VSL estimates provide the average tradeoff between costs and product risks that consumers would make if they were cognizant of the product risks" (p. 45). However, when there is asymmetric information about product safety, it may not always be in the firm's interest to apply the VSL. The probability with which a firm is found liable when a consumer is harmed using its product, and the expected size of the penalty when a firm is found liable, will shape a firm's incentives for product safety.

Viscusi discusses several examples of court cases where automobile manufacturers were sued following deaths involving their vehicles. Each of the cases involves a situation in which a company decided to forgo a safety improvement after an internal analysis indicated that the cost of the safety improvement was greater than the benefit. According to Viscusi, the most important flaw in these risk analyses (from a social efficiency perspective) was that "the lives at risk were valued based on the level of tort liability damages in wrongful death cases" (p. 47). If the companies had instead valued the lives at risk using the VSL, then they would have been trading off product safety with price in a way that was consistent with the average consumer's preferences.

The discussion of these court cases highlights how the companies were penalized for performing risk analyses. The explicit consideration of safety–cost tradeoffs was used to portray companies as knowingly marketing unsafe products, which lead to massive punitive damages. This incentivized companies to stop explicitly considering safety–cost tradeoffs. Interestingly, the performance of the risk analyses likely upset jurors, and not simply because an insufficient value was placed on mortality risks. Viscusi describes the impact of hindsight bias on jury

decisions as well as his own research showing that jurors would favor high punitive damages even if a risk analysis were performed using an appropriate VSL. To overcome firms' current aversion to risk analyses, Viscusi advocates for a safe harbor provision to prevent plaintiffs from introducing as evidence any risk analyses that value mortality risks based on the VSL used by the Department of Transportation. When punitive damages are warranted, setting the penalty at the level of the VSL weighted by the inverse probability that a company's negligent behavior is detected will incentivize socially efficient levels of product safety.

Chapters 5 and 6 address a controversial issue in the application of the VSL: How should heterogeneity in the VSL by age and income influence policy and product design decisions? Viscusi begins by discussing the controversy that surrounded the Environmental Protection Agency's (EPA's) analysis of the Clear Skies Initiative in 2003. EPA analysts arbitrarily applied a much lower VSL to those over 65 years old. Such discounts by age are common in regulatory analyses in other countries as well. Viscusi argues that these arbitrary discounts are not consistent with the empirical evidence on the VSL. In fact, estimates of the VSL follow an inverted U-shape, increasing with age through the late 40s before declining. The VSL at age 62 is roughly equivalent to the VSL at age 30 (p. 98). Similarly, estimates of the value of a statistical life *year* (VSLY) increase through a person's mid-50s and then remain relatively flat as age continues to increase. Therefore, from an economic efficiency standpoint, there is no justification for arbitrarily discounting the VSL as age increases. Viscusi argues that, for most regulations, a constant VSL by age approach not only avoids controversy but also likely leads to roughly efficient and fair decisions.

A person's willingness to pay to avoid risk is largely determined by the budget constraint. It is no surprise, then, that estimates of the VSL increase with income. This suggests that income-related adjustments to the VSL could improve economic efficiency in cases when a policy or product design decision has differential impacts by income. For example, Viscusi notes that for those products that tend to be purchased by those with relatively high incomes, such as airplane flights, the use of a higher VSL may be desirable. The individuals purchasing such products are willing to pay relatively high amounts for increased safety and also directly pay the higher price for increased safety. However, when

considering policies that are funded via general taxation, “income-based VSL levels may lead to the poor subsidizing policies for the rich” (p. 119).

Differences in the VSL by income are also relevant when considering the application of the VSL across countries and across time. Viscusi argues that the VSL for the US should not be applied when making regulatory decisions in countries with different income levels. Using the relatively high VSL estimated for the US to make regulatory decisions in a poor country would force the citizens of the poor country to pay more for safety than they would like to. While Viscusi’s arguments may be helpful in considering when it may be justified to apply different VSLs by income, a Christian might hope that the rich become increasingly willing to pay the cost of reducing risks of death for the poor so that the budget constraint for the poor is less determinative of their health and safety. On the other hand, the lower VSL for the poor reveals their preference for trading off safety with other objectives and could serve as a helpful metric if the relatively rich want to provide aid (other than cash) in a way that is consistent with the preferences of those receiving the aid.

Chapters 8, 9, and 10 conclude the book. Chapter 8 argues that the VSL estimated using labor market data can be reasonably applied in most policy and product design decisions. Viscusi provides an interesting discussion on why the willingness to pay to reduce fatality risks at work is likely a good starting point for analyses involving other types of mortality risks, such as those from transportation or cancer. Chapter 9 fleshes out the arguments on the potential role of the VSL in the courts that were introduced in Chapters 3 and 4. Finally, Chapter 10 provides a recap of the main ideas in the book.

*Pricing Lives* offers an informative discussion on the VSL’s current and potential role in regulatory, product safety, and court decisions. I enjoyed the real-life and hypothetical examples that were present throughout the book. I also appreciated that many of the controversies and concerns surrounding the application of the VSL were directly addressed.

Christians who read *Pricing Lives* may leave the book wanting more discussion on the ethical issues surrounding the VSL. The explicit position in the book is that making socially efficient decisions is ethically responsible, so cost–benefit analysis should be applied even in cases where risks to human life are an important component of a decision. While it is possible that this is correct, this book is not the place to find

a well-developed ethical argument. Viscusi frequently notes that application of the VSL tends to result in a higher value being placed on risks to life than is the case when that value is left implicit or when a different explicit metric is used. However, this does not necessarily imply that monetizing risks to life is ethical.

The theory and estimation of the VSL also raise many philosophical questions that are not addressed in *Pricing Lives*. Can people appropriately price risks to their own lives given that they have little understanding of what death is truly like? Do people account for the net benefit of their life to others when choosing among alternatives with different levels of risk? What exactly does a person's willingness to pay to reduce mortality risks (over-and-above willingness to pay to reduce morbidity risks) measure? Does this value represent fear of death? How might the VSL vary across societies with different views on the meaning of life and death?

Many Christian theologians have concluded that, because every person is a special creation made in the image of God and for relationship with God, human life ought to be treated reverently (Barth, 1961; Gushee, 2013; Smedes, 1983). As the VSL is widely used to decide the level at which risks to human life are acceptable, Christians ought to carefully and reverently consider how the VSL is used and whether its use is consistent with a Christian understanding of human dignity and welfare. Reading *Pricing Lives* is a good place to start.

### References

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