



POLICY SPOTLIGHT

Putting a Value on Life in Cost-Benefit Analysis

JAMES BROUGHEL | JULY 2021

Federal agencies often assign a dollar value to the lives that, on the basis of their cost-benefit analyses, they expect to save through regulations that address life-threatening risks. This dollar value is often estimated from surveys of what adults are willing to pay to reduce risk of various kinds or from labor market data on the extent to which wages vary across jobs with different risk levels. The measure so derived reflects the risk preferences of these groups and is the *value of a statistical life* (VSL).

Policy analysts apply the VSL by extrapolating the risk preferences of these subgroups to all members of society. Despite some fundamental flaws, US regulatory agencies use the VSL extensively in rulemaking. Measures of costs avoided by preventing deaths or, alternatively, measures such as quality-adjusted life years (QALY) are generally superior for maximizing social welfare. Instead of continuing to rely on the VSL, regulators should consider relying on these alternatives, which are already used widely in other contexts.

SHORTCOMINGS OF THE VSL

Market failure foundations: In general, whatever amount of money a particular individual is willing to pay to reduce risk represents the private—not the social—value of risk reduction. When private and social values diverge, a market failure exists.

Wasteful policy recommendations: The spending choices of individuals and organizations such as employers impose externalities on successive generations by decreasing social wealth and, by extension, economic growth. Inferring the value of regulatory benefits from markets where externalities are present wastes resources.

Overriding preferences: Currently, VSL measures account only for what narrow segments of society are willing to pay to reduce risk. The preferences of broader society, including friends, family, children, and future generations are overlooked, and indeed overridden, when policy is guided by the VSL.

Increases in risk: Some fraction of the resources that are wasted when policy is directed by the VSL would have been invested in risk reduction instead. Displacing these investments can increase risk on balance and cost lives.

BETTER APPROACHES TO VALUING LIVES

A measure of life's value connected to a person's productive contributions would be superior to the VSL because it would better account for the value that person's life has to society broadly, rather than to particular individuals. Fortunately, better approaches already exist and are widely used in other contexts:

- Human capital and productivity approaches more closely connect the value of life to its opportunity cost to society. US federal agencies, the Centers for Disease Control and Prevention, and recent scholarly research (by, for example, James Broughel and Michael Kotrous) employ similar approaches to the economic valuation of morbidities and mortality.
- QALYs are commonly used by medical care experts and by government agencies around the world. Although the connection between QALYs and production is weak, QALYs produce more economical policy recommendations than the VSL in practice.

KEY TAKEAWAY

Cost-benefit analysis is weakened as a tool for assessing economic tradeoffs when it adopts the VSL. Such analysis produces misleading results and encourages myopic policy responses that waste resources and that can even increase risk. Citizens should be wary of regulations that are guided by the VSL.

FURTHER READING

James Broughel and Michael Kotrous, "The Benefits of Coronavirus Suppression: A Cost-Benefit Analysis of the Response to the First Wave of COVID-19 in the United States," *PLOS ONE* 16, no. 6 (2021): 1-20.

James Broughel, "Rethinking the Value of Life: A Critical Appraisal of the Value of a Statistical Life" (Policy Paper No. 2020.002, Center for Growth and Opportunity at Utah State University, Logan, UT, January 2020).

James Broughel and Michael Kotrous, "Why Economists Measure Human Lives in Dollars," *Politico*, April 2, 2020.

James Broughel, "Rethinking the Value of a Statistical Life," *Regulatory Review*, February 10, 2020.

James Broughel and W. Kip Viscusi, "The Mortality Cost of Expenditures," *Contemporary Economic Policy* 39, no. 1 (2021): 156-67.

James Broughel, review of "Pricing Lives: Guideposts for a Safer Society," *Independent Review* 23, no. 2 (2018): ix 273.

James Broughel, "How Economists Put a Price Tag on Your Life," *Forbes*, July 9, 2021.

ABOUT THE AUTHOR

James Broughel is a senior research fellow at the Mercatus Center at George Mason University. Broughel has a PhD in economics from George Mason University. He is also an adjunct professor at the Antonin Scalia Law School at George Mason University.

ABOUT POLICY SPOTLIGHTS

Mercatus Policy Spotlights provide a high-level overview of key issues facing the nation's policymakers and introduce relevant policy positions.



WWW.MERCATUS.ORG