



THE VALUE OF A STATISTICAL LIFE: ECONOMICS AND POLITICS

Government agencies design regulations that are meant to benefit Americans. However, each regulation also comes with costs. Ideally, agencies use benefit-cost analysis to decide whether a proposed regulation is worth the cost.

When policies are designed to reduce health risks, agencies use a metric called the Value of a Statistical Life, or VSL to estimate benefits. In the simplest terms, a VSL is an estimate for how much people are willing to pay to reduce their risk of death. Alternatively, the VSL can be thought of as how much people are willing to pay for safety.

Ideally, using accurate estimates of the VSL would enable agencies to conduct cost-benefit analyses that correctly identify efficient policies designed to protect people from risk and improve health. There are several reasons, however, to be skeptical of policies proposed by government agencies in this area.

KEY FINDINGS

PEOPLE DO NOT ACCURATELY PERCEIVE RISKS

- Individuals have cognitive biases that do not allow them to accurately assess the risks they face.
- People often overestimate small risks and underestimate relatively large risks, which can inflate VSL calculations for small environmental hazards.
- Policymakers, voters, and politicians are also subject to these biases which leads to over-reaction to and over-regulation of small risks.

THE VSL MAY BE OVERESTIMATED DUE TO PUBLICATION BIAS

- Publication bias occurs when journals are more likely to publish studies that find large or statistically significant VSL estimates, while studies with small VSL estimates are less likely to be published.
- Some studies suggest VSL estimates may be significantly overestimated due to publication bias. Accounting for this bias may reduce VSL estimates by as much as 70 to 80 percent.



MANY STATED PREFERENCE STUDIES ARE UNRELIABLE

- Stated preference studies ask people how much they would be willing to pay to reduce risk in a hypothetical situation.
- Stated preference studies are subject to “hypothetical bias” that can inflate VSL estimates because people say they are willing to pay more to avoid risk than they actually are.
- Stated preference studies regularly fail scope tests. Preferences estimated from these studies do not appear rational. In other words, willingness to pay estimates from these studies are not related to the size of the risk.

AGENCIES HAVE INCENTIVES TO MAXIMIZE BUDGETS

- Public Choice Theory suggests that government agencies are incentivized to use policies and procedures designed to maximize budgets.
- Agencies are incentivized to use larger VSL estimates to increase the likelihood that their proposed regulations will pass a benefit-cost test.
- Agencies have the incentive to ignore or avoid doing benefit-cost analysis on regulations that would not pass.

POLITICAL OR BUREAUCRATIC CONSIDERATIONS MAY TRUMP BENEFIT-COST ANALYSIS

- VSL estimates are subject to political pressure.
- It is politically unpopular to reduce the VSL because the public perceives reducing the VSL as lowering the value of life.
- When the Environmental Protection Agency tried to reduce VSL estimates for senior citizens to reflect older people’s lower willingness to pay for risk reduction, Congress prevented this change from happening to avoid upsetting constituents.
- Ignoring or avoiding benefit-cost analysis can lead to over-regulation.

OVER-REGULATION HARMS AMERICANS

- Over-regulation has real implications for American taxpayers and consumers. When government agencies over-regulate, this limits people’s ability to make decisions for themselves, reduces economic efficiency, and raises compliance costs.

At Strata, our mission is to help people make informed decisions about issues that impact the freedom to live their lives. We work to achieve more prosperous and free societies by affecting a change in the climate of ideas. We do this by conducting robust research on energy and environmental issues, informing policy makers, citizens and civic leaders, and by mentoring high-achieving students to become future decision makers. Strata is located in Logan, Utah. We draw from the collective academic strength and ideas from the faculty and students at Utah State University and a strong network of academics and professionals throughout the world.

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