

Stated preference valuation of environmental, health and transport risks: A meta-analysis

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Abstract

It is increasingly common to include estimates of value of statistical life (VSL) into analyses of proposed policies that affect people's risks. While such VSL estimates have often been derived using revealed preferences methods, e.g. comparing wage differentials between risky and non-risky jobs, such methods may be inappropriate to assess the value of very different environmental, health and transport risks affecting the general population. Hence, a growing body of research use stated preference methods instead, asking people directly for their willingness to pay to reduce such risks. We take stock of this literature and conduct, to our knowledge, the first meta-analysis seeking to explain the variation in stated preference VSL estimates based on differences in study designs (incl. the way risk changes are displayed), characteristics of risk (type and size of risk, baseline risks, latency etc), socio-economic characteristics (age, income, gender, health status, etc.) and other variables derived from the studies and from other available statistics. We not only investigate whether VSL conforms with standard theoretically and empirically derived expectations, but attempt to probe deeper into how people's stated values vary with characteristics of risks, controlling for methodological differences between studies. Results are potentially important both to our understanding of how people perceive and value risk changes and as a contribution to more reliable use of VSL estimates for cost-benefit analysis.

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