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Risk, Decision Metrics and Public Policy

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Summary

The risk and engineering community has a large number of risk-based approaches to decision-making. These range from annual fatality risk to cost per life saved to cost-effectiveness to cost-benefit analyses. Each has their own advantages and drawbacks. However, what is more important is which decision metrics resonate with the public, and hence will most likely influence public policy makers. Decisions on technical matters related to building and engineering standards are left to standards organisations which in turn relies on advice from technical experts. However, public policy related to terrorism, climate change, economics, transport, health, education, etc. is not only a matter of expert and technical advice, but is also influenced by public opinion and the political imperative. What engineers believe is persuasive evidence in support of public policy may not be how the public or government perceives the evidence to be. The presentation will discuss the risk communication benefits and drawbacks of various decision metrics in relation to public perception of decision analyses conducted for terrorism, climate change, transport and other policy deliberations.