

Estimation of the value of a statistical life for air pollution in France

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Abstract

This article presents the results of a contingent valuation survey carried out in France estimating the value of a statistical life (VSL) using the willingness to pay (WTP) method to reduce the mortality risk due to air pollution. It also assesses the individual acceptable level of mortality risk, perception of air quality and risk aversion. Alternative statistical models are tested to investigate the relationship between WTP (and therefore VSL) and respondent characteristics. Our results estimate an average VSL of between US\$90,000-US\$180,000 (€80,000-€160,000) and an acceptable average level of mortality risk close to 20%. Almost half of our panel reveals a misperception of air quality and more than 30% are risk-averse. In addition, the WTP to reduce the mortality risk linked to air pollution is influenced by individual characteristics (age, income, place of residence, behaviors related to protecting health, knowledge of the health risks induced by air pollution) and the characteristics of the risk (severity, short and long-term impacts on health, public exposure).

Keywords : air pollution, contingent valuation method, mortality risk, risk-aversion, value of a statistical life, willingness to pay.

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