

MONETISING ROAD TRAFFIC NOISE AND AIR POLLUTION IMPACTS: DOES IT MATTER WHICH EFFECTS YOU SPECIFY?

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Background and aims: There is an increasing trend to monetise environmental health impacts. Only few studies provided original data on the economic valuation of environmental health impacts in terms of public's willingness-to-pay (WTP) and willingness-to-accept (WTA). We studied how people value the impacts of road traffic noise and air pollution.

Methods: A web-based survey was conducted in the United Kingdom, Finland, Germany, the Netherlands, and Spain in 2010. Our objective was to gather 2,000 respondents per country. There were 2 types of survey: one on air pollution and the other on noise. Respondents randomly received one of the two types of the survey. We inquired respondent's WTP and WTA to avoid or to accept the current level of road traffic noise and air pollution related to different types of health and wellbeing outcomes.

Results: Nearly 10,500 respondents answered the survey and 75% of them decided to answer the other type of survey. Circa 10% of the respondents rejected the concept of WTP and 2% rejected the WTA concept, with various motivations between countries. When the effects of road traffic noise and air pollution were specified, their WTP and WTA increased, compared to when the effects were unspecified. The annual WTP for separated effects summed up for noise and air pollution had an average between €40 and €200 for the participating countries. For the annual WTA of separated effects, the average was between €130 and €2,230.

Conclusions: When effects were presented as a combination of effects which occurred simultaneously, the amounts of WTP and WTA were much lower than the sum of the individually scored health outcomes. Specifying the impacts of road traffic noise and air pollution lead us to a higher amount of WTP and WTA, compared to valuation of traffic noise and air pollution in general.