

Abstract

Contingent valuation experiments (CVEs) can be used to assess willingness to pay for non-market goods or services such as environmental resources. In a CVE, respondents are presented with a hypothetical bidding scenario under which the good or service is offered and asked to accept or reject the bid. This presentation concerns design of contingent valuation experiments when interest is in knowing whether respondents have positive willingness to pay and, if so, if they are willing to pay a certain amount for a specified good. A trinomial spike model is used to model the response. Locally D-optimal designs are derived.

However, these designs depend on the unknown parameters of the model. I will demonstrate how information about the parameters, e.g., from pilot studies, can be used to construct minimax designs, for which the best guaranteed value of the criterion function is sought under the assumption that the parameter values are within certain regions. The proposed methodology is illustrated on an application where the value of environmentally friendly produced clothes is evaluated.