

Estimating the benefits of farm animal welfare legislation using the contingent valuation method

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Abstract

This paper presents the method and findings of a contingent valuation (CV) study that aimed to elicit United Kingdom citizens' willingness to pay to support legislation to phase out the use of battery cages for egg production in the European Union (EU). The method takes account of various biases associated with the CV technique, including 'warm glow', 'part-whole' and sample response biases. Estimated mean willingness to pay to support the legislation is used to estimate the annual benefit of the legislation to UK citizens. This is compared with the estimated annual costs of the legislation over a 12-year period, which allows for readjustment by the UK egg industry. The analysis shows that the estimated benefits of the legislation outweigh the costs. The study demonstrates that CV is a potentially useful technique for assessing the likely benefits associated with proposed legislation. However, estimates of CV studies must be treated with caution. It is important that they are derived from carefully designed surveys and that the willingness to pay estimation method allows for various biases.

Author Keywords: Farm animal welfare; EU legislation; Contingent valuation; Costs and benefits; UK

JEL classification codes: Q18; Q26

Article Outline

1. Introduction
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 3. Results
 - 3.1. Concerns about farm animal welfare and support of the cage ban
 - 3.2. WTP to support the cage ban
 4. Discussion and conclusions
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Appendix A. Specimen example of questionnaire
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Table 1. Responses to willingness to pay questions according to bid level (UK pence)[a](#)

Table 2. Summary of responses to the attitude statements (% of respondents)[a](#)

Table 3. Willingness-to-pay model for the egg legislation

Number of observations: 446; $-2 \log$ likelihood: 319.198; chi-square for covariates: 145.378 with six degrees of freedom ($P=0.001$); association of predicted probabilities and observed responses: 86.4% concordant, 13.4% discordant (Yes—350 predicted, 339 actual; No—96 predicted, 107 actual).

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