

## Contingent Valuation Method

TI: Consumption Externalities in a Commercial Fishery: The Queensland Beam Trawl Fishery

AU: Campbell, -H.-F.; Reid, -C.-R.-M.

SO: Economic-Record; 76(232), March 2000, pages 1-14.

AB: Demand and contingent valuation models are used to analyze survey data obtained from a sample of recreational boat and shore fishers in southern Queensland. The value of the recreational fishery to the average fisher in the sample and the value of marginal increases in catches of target species are estimated. These estimates are used to calculate the value of Pigovian taxes representing the marginal cost of catch and congestion externalities imposed by the beam trawl fishery on the recreational fishery. The results suggest that the cost of these externalities does not justify the closure of the beam trawl fishery.

TI: Benefices de sante lies a la qualite de l'environnement: Peut-on negliger les couts prives? (Health Benefits Induced by Environmental Quality: Are Private Costs Negligible? With English summary.)

AU: Rozan, -Anne

SO: Revue-Economique; 51(3), May 2000, pages 595-608.

AB: For a complete estimation of morbidity effects associated with environmental damages, the paper pleads in favour of the use of two methods: the cost of illness method (COI) and the contingent valuation method (CVM). Indeed these methods are complementary, COI is used to asses the "social cost" (medical expenses, lost wages) and CVM to value the "private cost" (disutility associated with the symptoms, pain, restricted activity). Moreover we show in the case of light symptoms induced by air pollution that private cost is at least as important as the social cost. Neglecting the private cost leads to an underestimation of health costs. In a cost-benefit analysis point of view, such an underestimation could lead to the opposite public decision.

TI: The Impact of Airport Noise on Willingness to Pay for Residences

AU: Feitelson, -Eran-I.; Hurd, -Robert-E.; Mudge, -Richard-R.

SO: Transportation-Research:-Part-D:-Transport-and-Environment; 1(1), September 1996, pages 1-14.

AB: The effects of aircraft noise following airport expansion on the willingness to pay (WTP) for residences is examined, using a contingent valuation approach. WTP estimates are elicited for a standard residence whose noise settings are systematically changed. The results show that most current compensation programs are inadequate, as they do not fully compensate homeowners or renters for the loss associated with higher noise exposure. This analysis also shows that such valuations should analyze noise as a multi-attribute externality, rather than by a single composite measure. Finally, the results indicate that household WTP structures are kinked, whereby, beyond a certain disturbance threshold, households are unwilling to pay anything for the residence: vet, different households have different thresholds. This kinked WTP structure helps explain the higher noise premiums obtained in CVM studies relative to hedonic price estimates.

TI: State Choice Valuation of Urban Traffic Air Pollution and Noise

AU: Saelensminde, -Kjartan

SO: Transportation-Research:-Part-D:-Transport-and-Environment; 4(1), January 1999, pages 13-27.

AB: In this study environmental problems related to urban traffic are valued by Stated Choice. Stated Choice is a Stated Preference method in which non-market goods are assessed relatively to each other and not in absolute amounts as with the more common Contingent Valuation Method. The use of Stated Choice to estimate people's willingness to pay to reduce environmental problems caused by road traffic can be seen as an extension of the established use of Stated Choice in transport research. Despite the fact that the results from this study have been used by the Norwegian Public Roads Administration in their cost benefit analyses since 1995, this paper points to the fact that considerable uncertainty remains with regard to (1) the area of validity of the results, (2) the impact on the valuations of interaction effects and other general methodological problems with Stated Preference methods, and (3) problems related to the complex choice situation of Stated Choice.

TI: Mother's Willingness to Pay for Her Own and Her Child's Health: A Contingent Valuation Study in Taiwan

AU: Liu,-Jin-Tan, et-al.

SO: Health-Economics; 9(4), June 2000, pages 319-26.

AB: We use the contingent valuation (CV) method to estimate mothers' willingness to pay (WTP) to protect themselves and their children from suffering a minor illness--a cold--in Taiwan. WTP is specified as a hedonic function of the duration and severity of the cold (measured alternatively by symptoms experienced and the Quality of Well-Being (QWB) index) and of respondents' socioeconomic characteristics. The average mother is willing to pay more to protect her child than herself from suffering a cold. Median WTP to avoid the average mother's and child's colds are US\$37 and US\$57, respectively. Adjusting for the greater duration and severity of the average mother's cold suggests that WTP to prevent comparable illnesses is approximately twice as large for the child as for the mother. We also find that mother's WTP is about 20% greater to prevent a son's than a daughter's illness.

TI: Survey Response-Related Biases in Contingent Valuation: Concepts, Remedies, and Empirical Application to Valuing Aquatic Plant Management

AU: Messonnier,-Mark-L., et-al.

SO: American-Journal-of-Agricultural-Economics; 82(2), May 2000, pages 438-50.

AB: Sample nonresponse and selection biases that may occur in survey research such as contingent valuation applications are discussed and tested. Correction mechanisms for these types of biases are demonstrated. Results indicate the importance of testing and correcting for unit and item nonresponse bias in contingent valuation survey data. When sample nonresponse and selection bias go uncorrected, welfare measures may be overestimated or underestimated contributing to potential errors in resource policy and management decisions.

TI: Using the Demand for Hunting Licenses to Evaluate Contingent Valuation Estimates of Willingness to Pay

AU: Loomis,-John; Pierce,-Cynthia; Manfredo,-Mike

SO: Applied-Economics-Letters; 7(7), July 2000, pages 435-38.

TI: Valuing the Recreational Benefits from the Creation of Nature Reserves in Irish Forests

AU: Scarpa,-Riccardo, et-al.

SO: Ecological-Economics; 33(2), May 2000, pages 237-50.

AB: Data from a large-scale contingent valuation study are used to investigate the effects of forest attributes on willingness to pay for forest recreation in Ireland. In particular, the presence of a nature reserve in the forest is found to significantly increase the visitors' willingness to pay. A random utility model is used to estimate the welfare change associated with the creation of nature reserves in all the Irish forests currently without one. The yearly impact on visitors' economic welfare of new nature reserves approaches half a million pounds per annum, exclusive of non-recreational values.

TI: Protest Responses and Willingness to Pay: Attitude toward Paying for Stormwater Pollution Abatement

AU: Jorgensen,-Bradley-S.; Syme,-Geoffrey-J.

SO: Ecological-Economics; 33(2), May 2000, pages 251-65.

TI: Complements, Substitutes, Budget Constraints and Valuation: Application of a Multi-program Environmental Valuation Method

AU: Hailu,-Atakelty; Adamowicz,-Wiktor-L.; Boxall,-Peter-C.

SO: Environmental-and-Resource-Economics; 16(1), May 2000, pages 51-68.

AB: This study employs a multi-program contingent valuation (CVM) design to simultaneously assess the value of three ecosystem conservation programs in Alberta, Canada. The design is different from most other CVM designs and has several different features including the natural incorporation of direct reminders of substitute/complementary programs and budget constraints. In contrast to the findings of other studies, two of the environmental programs appear to be complements and other combinations of the programs suggest an absence of substitution effects. The multiprogram model is more informative and robust in terms of theoretical validity and expected relationships with demographic and recreational characteristics of the respondents.

TI: The Disvalue of 'Contingent Valuation' and the Problem of the 'Expectation Gap.'

AU: Westra,-Laura

SO: Environmental-Values; 9(2), May 2000, pages 153-71.

AB: "Contingent Valuation" is a method often used to make decisions about environmental issues. It is used to elicit citizens' preferences at the location of a specific facility, new road and the like. I argue that even if we could elicit a truly informed and "free" choice, the method would remain flawed, as 1) all "local" activity also has far-reaching environmental consequences; 2) majority decisions may support choices that adversely affect minorities; 3) even with full information, consenting to harms like significant alterations of our normal functioning or health, or genetic mutations, may not be morally acceptable.

TI: Cost-of-Illness and Willingness-to-Pay Estimates of the Benefits of Improved Air Quality: Evidence from Taiwan

AU: Alberini,-Anna; Krupnick,-Alan

SO: Land-Economics; 76(1), February 2000, pages 37-53.

AB: We compare cost-of-illness (COI) and willingness-to-pay (WTP) estimates of the damages from minor respiratory symptoms associated with air pollution, using data from a study in Taiwan in 1991-92. A contingent valuation survey was conducted to estimate WTP to avoid minor respiratory illnesses. Health diaries were analyzed to predict the likelihood and cost of seeking relief from symptoms and of missing work. As predicted by economic theory, WTP is greater than the COI estimates, exceeding the latter by 1.61 to 2.26 times, depending on pollution levels. These ratios are similar to those for the United States, despite the differences between the two countries.

TI: A Comparison of Hypothetical Phone and Mail Contingent Valuation Responses for Green-Pricing Electricity Programs

AU: Ethier, -Robert-G., et-al.

SO: Land-Economics; 76(1), February 2000, pages 54-67.

AB: This study provides the first contingent valuation phone-mail comparison that meets current standards for response rates, draws from a general population, is relevant to the valuation of general environmental goods, and allows comparisons with actual participation rates. Social desirability effects are found to be more prevalent in phone responses to subjective questions, but do not appear to affect hypothetical participation decisions: calibrated and uncalibrated hypothetical participation rates are statistically similar across modes. As such, neither mode appears to dominate from the perspective of providing more valid estimates of actual participation decisions.

TI: Measuring the Total Economic Value of Restoring Ecosystem Services in an Impaired River Basin: Results from a Contingent Valuation Survey

AU: Loomis, -John-B., et-al.

SO: Ecological-Economics; 33(1), April 2000, pages 103-17.

AB: Five ecosystem services that could be restored along a 45-mile section of the Platte River were described to respondents using a building block approach developed by an interdisciplinary team. These ecosystem services were dilution of wastewater, natural purification of water, erosion control, habitat for fish and wildlife, and recreation. Households were asked a dichotomous choice willingness to pay question regarding purchasing the increase in ecosystem services through a higher water bill. Results from nearly 100 in-person interviews indicate that households would pay an average of \$21 per month or \$252 annually for the additional ecosystem services. Generalizing this to the households living along the river yields a value of \$19 million to \$70 million depending on whether those refusing to be interviewed have a zero value or not. Even the lower bound benefit estimates exceed the high estimate of water leasing costs (\$1.13 million) and conservation reserve program farmland easements costs (\$12.3 million) necessary to produce the increase in ecosystem services.

TI: Modelización del aprendizaje en valoración contingente. (With English summary.)

AU: Leon, -Carmelo-J.; Vazquez-Polo, -Francisco-J.

SO: Investigaciones-Economicas; 24(1), January 2000, pages 117-38.

AB: In this paper we propose a Bayesian approach for measuring the benefits of environmental goods using the contingent valuation method. This approach is especially useful for modelling iterative elicitation methods where the final valuation may be interpreted as a result of the learning process in the earlier stages. This methodology is applied to

double bounded dichotomous choice utilizing data from a sample of tourists' values for access to a group of natural areas in Gran Canaria. The Bayesian estimator leads to consistent results with the single bounded method. In addition, it is very robust to the specification of the prior and does lead to similar efficiency results than double bounded.

TI: (Mis)Construal Processes for Contingent Valuation Questions: A Commentary on "Construal Processes in Preference Assessment."  
AU: McDaniels, -Timothy-L.  
SO: Journal-of-Risk-and-Uncertainty; 19(1-3), December 1999, pages 169-70.

TI: The Value of Water Levels in Water-Based Recreation: A Pooled Revealed Preference/Contingent Behavior Model  
AU: Eiserwerth, -Mark-E., et-al.  
SO: Water-Resources-Research; 36(4), April 2000, pages 1079-86.

TI: Value of Public Goods from Sports Stadiums: The CVM Approach  
AU: Johnson, -Bruce-K.; Whitehead, -John-C.  
SO: Contemporary-Economic-Policy; 18(1), January 2000, pages 48-58.  
AB: Many state and local governments have subsidized the construction of arenas and stadiums for the use of professional sports teams. They often justify the subsidies by claiming the projects generate valuable public goods and positive externalities, though such benefits are difficult to measure. This article reports an application of the contingent valuation method (CVM) to measure the value of public goods generated by two proposed projects in Lexington, Kentucky: a new basketball arena for the University of Kentucky and a minor league baseball stadium. Neither project would generate sufficiently valuable public goods to justify public financing. Although the results cannot be generalized to other cases, they do shed light on some of the main issues involved, and they demonstrate the feasibility of applying CVM to the evaluation of subsidized stadiums.

TI: Comparison of Contingent Valuation and Conjoint Analysis in Ecosystem Management  
AU: Stevens, -T.-H., et-al.  
SO: Ecological-Economics; 32(1), January 2000, pages 63-74.  
AB: Contingent valuation (CV) and conjoint analysis were used to estimate landowner's willingness to pay (WTP) for ecosystem management on non-industrial private forest land. The results suggest that even when conjoint and CV questions are the same, except for rating and pricing format, respectively, WTP estimates are quite different. Since most conjoint models essentially count "maybe" responses to valuation questions as "yes" responses, we conclude that conjoint model results often produce WTP estimates that are biased upwards.

TI: Environmental Attitudes, Motivations, and Contingent Valuation of Nonuse Values: A Case Study Involving Endangered Species  
AU: Kotchen, -Matthew-J.; Reiling, -Stephen-D.  
SO: Ecological-Economics; 32(1), January 2000, pages 93-107.  
AB: This paper explores relationships among environmental attitudes, nonuse values for endangered species, and underlying motivations for contingent valuation (CV) responses. The approach combines techniques from the attitude-behavior and economic valuation literature. Attitudes are measured with the New Ecological Paradigm (NEP) scale,

and economic values are derived from a referendum, CV survey for peregrine falcons and shortnose sturgeons. Respondents with stronger pro-environmental attitudes are found more likely to provide legitimate yes/no responses, while those with weaker attitudes are more likely to protest hypothetical CV scenarios. Analysis reveals environmental attitudes as a significant explanatory variable of yes/no responses, whereby stronger pro-environmental attitudes result in higher probabilities of responding "yes." Pro-environmental attitudes are also shown to result in higher estimates of mean willingness to pay (WTP). Significant relationships are found between environmental attitudes and nonuse motivations. Specifically, pro-environmental attitudes are associated with stronger reliance on ethical motives for species protection. These results are discussed as they relate to testing predictions in the literature about potential bias in CV studies and to supporting National Oceanic and Atmospheric Administration (NOAA) recommendations for improving CV reliability.

TI: Trichotomous Choice: A Possible Solution to Dual Response Objectives in Dichotomous Choice Contingent Valuation Questions

AU: Loomis, -John-B.; Traynor, -Kerri; Brown, -Thomas

SO: Journal-of-Agricultural-and-Resource-Economics; 24(2), December 1999, pages 572-83.

AB: We investigate the possibility that some respondents to a dichotomous choice question vote YES, even though they would not pay the posted dollar amount in order to register support for the project or policy. A trichotomous choice question format is proposed to determine if allowing respondents the opportunity to vote in favor of a project at an amount less than their bid affects estimated willingness to pay. Using univariate and multivariate tests, we find the trichotomous choice question format reduces the number of YES responses and produces a statistically significant decrease in willingness to pay for an open-space program.

TI: Evaluation contingente de l'usage recreatif d'une reserve naturelle humide. (Contingent Valuation of the Recreational Use of a Wetland. With English summary.)

AU: Judez, -Lucinio, et-al.

SO: Cahiers-d'Economie-et-Sociologie-Rurales; 0(48), 3rd Trimester 1998, pages 37-60.

AB: This paper presents a procedure used to estimate the recreational use value of "Tablas de Daimiel" National park by applying the Contingent Valuation Method with single dichotomous choice, using the truncated mean as welfare measure.

TI: Nonparticipation or Misspecification? The Impacts of Nonparticipation on Dichotomous Choice Contingent Valuation

AU: Haab, -Timothy-C.

SO: Environmental-and-Resource-Economics; 14(4), December 1999, pages 443-61.

AB: Dichotomous choice (or Referendum) contingent valuation surveys have become the predominate choice for valuing goods and services otherwise not valued in a standard market (nonmarket goods and services). A number of researchers have recently recommended that dichotomous choice contingent valuation studies include a follow-up question to all no responses to determine whether the no response is a result of unwillingness to pay, or nonparticipation. If the goal of the study is to investigate the impact of covariates on either mean

willingness to pay or the probability of nonparticipation, simple identification of indifferent individuals will not suffice. A simulation study shows that existing econometric models designed to account for nonparticipation are extremely sensitive to misspecification bias. Accurate identification of the probability of nonparticipation is hampered by potential misspecification of the distribution of willingness to pay.

TI: Human Costs of Chronic Bronchitis in Switzerland

AU: Priez, -France; Jeanrenaud, -Claude

SO: Schweizerische-Zeitschrift-fur-Volkswirtschaft-undStatistik/Swiss-Journal-of-Economics-and-Statistics; 135(3), September 1999, pages 287-301.

AB: The contingent valuation method was applied to assess the reduction in quality of life due to chronic bronchitis within an incidence framework. Interviewees--a sample of the general population--expressed their willingness-to-pay to reduce their risk of contracting the disease. Health was presented as a private good and respondents were made aware of the health implications, the average risk and the main causes of chronic bronchitis. The internal validity of the survey was assessed by the semi-logarithmic and Box-Cox models. Human costs amounted to CHF 38,500 per case and to a total of CHF 481 million, or 0.13% of the GDP.

TI: Does Question Format Matter? Valuing an Endangered Species

AU: Reaves, -Dixie-Watts; Kramer, -Randall-A.; Holmes, -Thomas-P.

SO: Environmental-and-Resource-Economics; 14(3), October 1999, pages 365-83.

AB: A three-way treatment design is used to compare contingent valuation response formats. Respondents are asked to value an endangered species (the red-cockaded woodpecker) and the restoration of its habitat following a natural disaster. For three question formats (open-ended, payment card, and double-bounded dichotomous choice), differences in survey response rates, item non-response rates, and protest bids are examined. Bootstrap techniques are used to compare means across formats and to explore differences in willingness to pay (WTP) distribution functions. Convergent validity is found in a comparison of mean WTP values, although some differences are apparent in the cumulative distribution functions. Differences across formats are also identified in item non-response rates and proportion of protest bids. Overall, the payment card format exhibits desirable properties relative to the other two formats.

TI: A Field Experiment Involving Cash and Hypothetical Charitable Donations

AU: Macmillan, -Douglas-C.; Smart, -Trevor-S.; Thorburn, -Andrew-P.

SO: Environmental-and-Resource-Economics; 14(3), October 1999, pages 399-412.

AB: An important focus for concern about Contingent Valuation (CV) is that hypothetical payments for non-market goods are biased upwards in comparison to cash payments. Lack of realism, through its influence on incentives to mis-report payments, may explain the divergence. This paper reports on a study which attempts to overcome this problem by emulating a real fund-raising solicitation by the Isle of Eigg Trust for both real and hypothetical donations. In contrast to previous results, the mean cash donation was higher (£3.71) than the mean CV donation (£3.41). A third survey, which used a neutral CV design,

implemented by a research organization, obtained a mean donation which was much higher (L6.21) than the cash equivalent.

TI: Valuing the Prevention of Food-Borne Illness: Some Limitations of Consumers' 'Willingness to Pay.'

AU: Covey, -Judith, et-al.

SO: Risk-Decision-and-Policy; 3(3), December 1998, pages 245-59.

TI: Do Focus Groups Contribute Anything to the Contingent Valuation Process?

AU: Chilton, -S.-M.; Hutchinson, -W.-G.

SO: Journal-of-Economic-Psychology; 20(4), August 1999, pages 465-83.

AB: The qualitative aspects of the Contingent Valuation Method (CVM) are largely ignored by (environmental) economists. This paper aims to instigate a discussion on (a) the usefulness of qualitative data to the contingent valuation process in general; and (b) the use and applicability of the focus group method in particular. We consider the range and uses of focus groups within the CVM and highlight problems with their analysis that have, to date, largely been ignored. A potential solution to circumvent the problem of non-independence of group data is suggested. While there are several distinct and worthwhile uses for qualitative data, focus groups should not automatically be taken as the only or best method to produce these insights even though they are the major one considered in this article.

TI: Public Attitudes to Contingent Valuation and Public Consultation

AU: Brouwer, -Roy, et-al.

SO: Environmental-Values; 8(3), August 1999, pages 325-47.

AB: The use of cost-benefit analysis (CBA) in environmental decision-making and the contingent valuation (CV) technique as input into traditional CBA to elicit environmental values in monetary terms has stimulated an extensive debate. Critics have questioned the appropriateness of both the method and the technique. Some alternative suggestions for the elicitation of environmental values are based on a social process of deliberation. However, just like traditional economic theory, these alternative approaches may be questioned on their implicit value judgements regarding the legitimacy of the social-political organisation of the process of value elicitation. Instead of making assumptions a priori, research efforts should be focused on the processes by which actual public attitudes and preferences towards the environment can best be elicited and fed into environmental or other public policy decision-making. In the study presented in this paper, support was found for both the individual WTP based approach and a participatory social deliberation approach to inform the environmental decision-making process, suggesting that a combination of both approaches is most appropriate.

TI: Testing for Temporal Reliability in Contingent Valuation with Time for Changes in Factors Affecting Demand

AU: Whitehead, -John-C.; Hoban, -Thomas-J.

SO: Land-Economics; 75(3), August 1999, pages 453-65.

AB: We develop a temporal reliability test of the contingent valuation method. Separate random samples were administered the same telephone survey five years apart. In the retest, respondents have less favorable attitudes toward the environment. Given this result, a temporally reliable contingent valuation would find lower willingness to pay. We find that the estimates are temporally reliable. After accounting for

attitudes which have changed over the five-year period, values are not significantly different five years apart. This study provides additional evidence that use of the contingent valuation method can provide useful information for environmental policy analysis.

TI: Do Reminders of Substitutes and Budget Constraints Influence Contingent Valuation Estimates? Another Comment

AU: Kotchen, -Matthew-J.; Reiling, -Stephen-D.

SO: Land-Economics; 75(3), August 1999, pages 478-82.

TI: Do Reminders of Substitutes and Budget Constraints Influence Contingent Valuation Estimates? Reply to Another Comment

AU: Whitehead, -John-C.; Blomquist, -Glenn-C.

SO: Land-Economics; 75(3), August 1999, pages 483-84.

TI: An Assessment of the Economic Effectiveness of Recreation Policy Using Contingent Valuation

AU: Christie, -Michael

SO: Journal-of-Environmental-Planning-and-Management; 42(4), July 1999, pages 547-64.

AB: Arrangements within the UK to enhance recreation opportunities in the countryside are currently implemented in a somewhat ad hoc manner. This paper analyses the economic effectiveness of such provision in Grampian Region, Scotland. This is achieved by quantifying, using the contingent valuation method, the economic benefits accruing from recreation enhancements and comparing these benefits with the level of expenditure currently being undertaken on these improvements. The subsequent analysis provides a strategic framework for the assessment of recreation needs in the region, thus enabling future priorities for provision to be identified. It is argued that the quantification of public preferences for recreation enhancements provides a powerful tool to aid strategic planning of recreation provision. The issue of using public funds to finance recreation facilities in the countryside is also discussed.

TI: The Value of Additional Central Flyway Wetlands: The Case of Nebraska's Rainwater Basin Wetlands

AU: Poor, -P.-Joan

SO: Journal-of-Agricultural-and-Resource-Economics; 24(1), July 1999, pages 253-65.

AB: Waterfowl habitat is a biological resource, which is neither bought nor sold in the traditional market sense. Nebraska, which is situated near the center of the North American Central Flyway, contains unique wetland habitat. Recognizing this, resource managers working in Nebraska promote regulatory protection of such areas. This study found that Nebraskans positively value their state's Rainwater Basin wetland region in that they are willing to pay to have it maintained and expanded. In addition, this study demonstrates how this value was estimated and illustrates how such a value can assist in policy decisions regarding habitat acquisition programs.

TI: Willingness to Pay for Health Protection: Inadequate Sensitivity to Probability?

AU: Hammitt, -James-K.; Graham, -John-D.

SO: Journal-of-Risk-and-Uncertainty; 18(1), April 1999, pages 33-62.

TI: Estimating Costs of Protecting Global Ecosystem Diversity

AU: Lewandrowski,-J. et-al.

SO: Ecological-Economics; 29(1), April 1999, pages 111-25.

AB: We estimate the costs to regional economies (as measured by the value of market goods and services foregone) from setting aside land to protect ecosystem diversity. Globally, our framework incorporates 43 unique sets of biological resources. The total annual costs (in 1990 dollars) of retiring 5, 10, and 15% of the world's land area to protect these resources are \$45.5, \$93.3, and \$143.8 billion, respectively. About 45% of global costs occur in Japan and the EC; the US cost share is 15%. Among regional economies, the most impacted sectors are crops, livestock, and forest products.

TI: The Swedish Agricultural Landscape--Economic Characteristics, Valuations and Policy Options

AU: Drake,-Lars

SO: International-Journal-of-Social-Economics; 26(7-8-9), 1999, pages 1042-60.

AB: The Swedish agricultural landscape has changed dramatically since 1945. Agricultural land has been abandoned and the general trend has been towards less scenic and biological variety. People express a relatively high willingness to pay for preservation of agricultural landscape in contingent valuation surveys and they tend to prefer high degrees of variability. Landscape is shown to be a multidimensional entity with a complex structure of economic characteristics. The complexity makes it unlikely that simple policy solutions are optimal. It is difficult to analyse policy options in this case but much speaks in favour of some differentiated area subsidy for a large fraction of the agricultural land and individual contracts for the most biologically valuable sites.

TI: Unbiased Value Estimates for Environmental Goods: A Cheap Talk Design for the Contingent Valuation Method

AU: Cummings,-Ronald-G.; Taylor,-Laura-O.

SO: American-Economic-Review; 89(3), June 1999, pages 649-65.

TI: Consumer Willingness to Pay for Low-Pesticide Fresh Produce in Taiwan

AU: Fu,-Tsu-Tan; Liu,-Jin-Tan; Hammitt,-James-K.

SO: Journal-of-Agricultural-Economics; 50(2), May 1999, pages 220-33.

AB: Willingness to pay (WTP) for reductions in health risk associated with consuming pesticide residues on vegetables are estimated using the contingent valuation method with in person interviews of married females in Taiwan. Estimated median WTP for 25 per cent, 50 per cent and 90 per cent reductions in the risk of developing cancer from consuming pesticide residues on a popular Taiwanese vegetable, bok choy, are estimated as 46 per cent, 56 per cent and 75 per cent of the current price of bok choy, respectively. WTP is significantly related to the scope or magnitude of the risk reduction, although it varies less than proportionately to the risk increment. WTP is also significantly related to measures of consumer preferences for health.

TI: On the Contingent Valuation of Safety and the Safety of Contingent Valuation: Part 2--The CV/SG "Chained" Approach

AU: Carthy,-Trevor et-al.

SO: Journal-of-Risk-and-Uncertainty; 17(3), December 1998, pages 187-213.

AB: This article reports the results of a study aimed at estimating a willingness-to-pay based value of statistical life for road risks using a multi-stage approach which involves "chaining together" responses to contingent valuation and standard gamble questions. The rationale for employing a multi-stage approach is to break the wealth/risk of death trade-off down into a number of conceptually manageable steps, thereby trying to attenuate the various biases that appear to be pervasive in responses to more direct contingent valuation questions in the health and safety field.

TI: Yea-Saying in Contingent Valuation Surveys

AU: Blamey,-R.-K.; Bennett,-J.-W.; Morrison,-M.-D.

SO: Land-Economics; 75(1), February 1999, pages 126-41.

AB: A number of recent papers have provided estimates of willingness to pay derived in contingent valuation surveys exceeding those revealed in experimental or real-life markets. One possible explanation for the overestimation of values is the presence of yea-saying. With the objective of reducing the occurrence of yea-saying, a new elicitation format, referred to as the dissonance-minimizing (DM) format, is proposed. An empirical comparison of the DM format with the conventional dichotomous-choice format and the ambivalence-reducing polychotomous choice format suggested by R. C. Ready, J. Whitehead, and G. Blomquist (1995) is made. Results are encouraging for the DM.

TI: Preference Structures, Property Rights, and Paired Comparisons

AU: Lockwood,-Michael

SO: Environmental-and-Resource-Economics; 13(1), January 1999, pages 107-22.

AB: The method of paired comparisons was used to determine the structure of survey participants' value expressions for Australian native forests. The same participants were also surveyed using the contingent valuation method (CVM). Data from the paired comparisons were used to construct preference maps which enabled identification of participants whose value expressions were structurally incompatible with economic welfare theory--in particular, those participants who expressed their values according to lexicographic preferences. For some of these participants, CVM results did not provide appropriate measures of WTP. The surveys also demonstrated the importance of allowing participants' own views on property rights to dictate the valuation context offered.

TI: Non-market Valuation of Natural and Environmental Resources in Central America and the Caribbean

AU: Shultz,-Steve

SO: CEPAL-Review; 0(63), December 1997, pages 65-76.

TI: Estimating the Benefits of Agri-Environmental Policy: Econometric Issues in Open-Ended Contingent Valuation Studies

AU: Alvarez-Farizo,-Begona et-al.

SO: Journal-of-Environmental-Planning-and-Management; 42(1), January 1999, pages 23-43.

TI: Contingent Valuation and Real Economic Commitments: Evidence from Electric Utility Green Pricing Programmes

AU: Byrnes,-Brian; Jones,-Clive; Goodman,-Sandra

SO: Journal-of-Environmental-Planning-and-Management; 42(2), March 1999, pages 149-66.

AB: This paper presents the findings of two 'green pricing' studies conducted to evaluate public support of utilities' investments in renewable energy technologies. These studies compared hypothetical WTP statements with actual payment commitments. The results of these studies indicate that the CVM can be an accurate indicator of an individual's WTP, but that it is an unreliable predictor of which individuals will actually pay. This has important implications for aggregating mean WTP estimates of the value of environmental benefits. It also suggests that market simulations can be useful for predicting programme participation rates when voluntary donations are used as a payment vehicle.

TI: Pricing of Rural Drinking Water: A Study of Willingness and Ability to Pay in Western India

AU: Reddy, -V.-Ratna

SO: Journal-of-Social-and-Economic-Development; 2(1), Jan.-June 1999, pages 101-22.

AB: This paper, while analysing various aspects of water use, estimates the household's willingness and ability to pay for drinking water in rural areas for formulating price policies. It questions the validity of the 5 per cent thumb rule for formulating blanket price policies. The study also vindicates the hypothesis that rural people are aware of the link between health and improved water supplies. It is argued that public policy needs to be geared to meet the future demand for improved water supplies. Households can afford to pay for water on supply cost basis provided water supplies are assured in terms of quality, quantity and regularity. Hence, cost recovery is not a major problem in the study region.

TI: Farmers' Willingness to Pay for Groundwater Protection

AU: Lichtenberg, -Erik; Zimmerman, -Rae

SO: Water-Resources-Research; 35(3), March 1999, pages 833-41.

TI: Valuing the Effects of Water Quality on Recreational Resources: Discussion

AU: Lupi, -Frank

SO: American-Journal-of-Agricultural-Economics; 80(5), 1998, pages 1038-41.

TI: Measuring Passive Use Value: Pledges, Donations and CV Responses in Connection with an Important Natural Resource

AU: Shechter, -M.; Reiser, -B.; Zaitsev, -N.

SO: Environmental-and-Resource-Economics; 12(4), December 1998, pages 457-78.

AB: This paper examines monetary valuations of lost passive-use benefits associated with damage to a unique environmental resource--a national park, elicited through contingent valuation, and compares them with actual donations to the same end, where the latter are interpreted as a quasi-market expression of willingness to pay for non-market resource services. The relationships between the two valuation approaches were investigated in the specific context of an environmental episode which damaged a unique natural endowment, Israel's Carmel National Park. The empirical analysis is based on data from two sample surveys; one sample was drawn from the population of people who either pledged or pledged and donated during a fund-raising campaign following the episode, with the proceeds dedicated to rehabilitation or prevention of future episodes; the second sample was

drawn from the general population of the country. The results cannot be interpreted as providing unqualified support for the reliability of contingent valuation as a means for obtaining passive use values.

TI: Ecotourism Demand and Differential Pricing of National Park Access in Costa Rica

AU: Chase,-Lisa-C. et-al.

SO: Land-Economics; 74(4), November 1998, pages 466-82.

AB: Ecotourism presents developing countries with growing opportunities for enhancing resource conservation and economic growth but also raises pressing management and policy challenges. This paper presents a conceptual framework and empirical analysis of the impacts of introducing a differential entrance fee policy at three national parks in Costa Rica. Data are collected using a contingent behavior methodology designed to elicit information on foreign tourists' hypothetical park visitation behaviors at alternative entrance fee levels. Park visitation demand functions and price and income elasticities are estimated. Revenue-maximizing fees are calculated and applications of differential pricing principles to park management are discussed. Coauthors are David R. Lee, William D. Schulze, and Deborah J. Anderson.

TI: Valuing Mangrove Resources in Kosrae, Micronesia

AU: Naylor,-Rosamond; Drew,-Mark

SO: Environment-and-Development-Economics; 3(4), October 1998, pages 471-90.

TI: Measuring Values of Wetlands in Taiwan

AU: Chen,-Kai-Lih

SO: Environmental-Economics-and-Policy-Studies; 2(1), 1999, pages 65-89.

TI: Valuation of Health Changes with the Contingent Valuation Method: A Test of Scope and Question Order Effects

AU: Kartman,-Bernt; Stalhammar,-Nils-Olov; Johannesson,-Magnus

SO: Health-Economics; 5(6), Nov.-Dec. 1996, pages 531-41.

TI: Limited Information, the Possibility of Rational Choice and the Contingent Valuation Method

AU: Gans,-Joshua-S.

SO: International-Journal-of-Social-Economics; 26(1-2-3), 1999, pages 402-14.

AB: The contingent valuation method (CVM) for assessing non-use values has undergone significant criticism recently on various fronts. In this paper, the author analyses the notion that imposing reasonable bounds on the rationality of agents might undermine the basis for any method that attempts to elicit non-use values on environmental goods from individuals, including CVM. The model of bounded rationality applied is that of Gans (1996). On the basis of that model it is argued that in complex and unfamiliar situations one would not expect individuals to be able to express their true preferences. Following this line, the author discusses the possibilities for using experts for valuation as well as for providing information for decision making on the preservation of public resources.

TI: Willingness to Pay (WTP) and Willingness to Accept (WTA) Measures in Turkey: May WTP and WTA Be Indicators to Share the Environmental Damage Burdens: A Case Study

AU: Tanrivermis,-Harun

SO: Journal-of-Economic-Cooperation-among-Islamic-Countries; 19(3), July 1998, pages 67-93.

AB: This paper employs the contingent valuation method (CVM) to estimate the willingness to pay (WTP) of individual consumers and producers for improving environmental quality and also compares their WTP to the current environmental charges payment. According to the survey result of the Ankara case, neither consumers nor producers like to pay charges or taxes because of the inefficient usage of the revenues by the government, even though their WTP are 34 times more than the current charges payment. This paper presents a survey which explores the application of CVM to environmental quality improvement issues by eliciting people's WTP to support a need for legislation on the economic instruments to increase environmental quality. This finding must be considered by the environmental authorities for imposing new environmental charges or taxes.

TI: WTA Estimates Using the Method of Paired Comparison: Tests of Robustness

AU: Champ,-Patricia-A.; Loomis,-John-B.

SO: Environmental-and-Resource-Economics; 12(3), October 1998, pages 375-86.

AB: The method of paired comparison is modified to allow choices between two alternative gains so as to estimate willingness to accept (WTA) without loss aversion. The robustness of WTA values for two public goods is tested with respect to sensitivity of the WTA measure to the context of the bundle of goods used in the paired comparison exercise and to the scope (scale) of the public good project. There was no statistical difference in WTA measures for open space based on independent treatments with different contexts. One treatment involved valuing open space within a set of goods with similar value. The other treatment involved valuing open space within a choice set of goods which had lower dollar values than open space. There was a statistical difference in WTA between a permanent expansion in the bus system and a temporary expansion in the bus system. We conclude the method of paired comparison appears to be a very promising approach to elicit measures of WTA.

TI: Incentive Compatible Referenda and the Valuation of Environmental Goods

AU: Taylor,-Laura-O.

SO: Agricultural-and-Resource-Economics-Review; 27(2), October 1998, pages 132-39.

AB: Recent attempts to test the validity of the contingent valuation method have relied on laboratory-type experiments. In these experiments, willingness to pay responses in hypothetical choice experiments are compared with responses from choice experiments requiring actual payments. Often evidence of hypothetical bias is found. Critical for these experimental tests of hypothetical surveys is that the methodology used to elicit willingness to pay from subjects in the real-payment experiment be demand revealing. If it is not, then differences in responses to hypothetical and real valuation questions could be due to free-riding in the real-payment survey and not due to hypothetical bias--in the hypothetical survey. This paper reports on

experiments that implement a theoretically incentive-compatible revelation mechanism (a closed referendum) to elicit responses to valuation questions in both hypothetical and real experiments. As in earlier studies, evidence of an upward hypothetical bias is found.

TI: Contingent Valuation and the Budget Constraint

AU: Ahlheim,-Michael

SO: Ecological-Economics; 27(2), November 1998, pages 205-11.

TI: Valuing Multiple Health Risks from Long-Term Low Dosage Exposure to Hazardous Chemicals

AU: Kask,-Susan-B.; Shogren,-Jason-F.; Cherry,-Todd-L.

SO: Indian-Journal-of-Applied-Economics; 7(3), July-Sept. 1998, pages 303-21.

AB: The abundance of low dosage chemicals prevalent in the environment and recent research raising issues about the health effects from these chemicals, have increased concern over risks to public health. What are the benefits of reducing the health risks from long-term low dosage exposure to hazardous chemicals? The characteristics of this class of health risks pose several challenges for benefits estimation including the difficulties involved when valuing a complex package of goods, embedding, potential for individuals to modify researcher defined goods, choice of risk reduction mechanism, and the low baseline risk level of these health effects. This paper examines these issues using a CVM study on Dioxin exposure and health risks. We find several interesting results, such as willingness to pay does not vary across risk types, although perceived baseline risks do vary. This result is explained by the broad range of risk reduction estimates given by respondents.

TI: Valuation of Groundwater Quality Using a Contingent Valuation-Damage Function Approach

AU: Poe,-Gregory-L.

SO: Water-Resources-Research; 34(12), December 1998, pages 3627-33.

TI: Avaliacao de Ativos Ambientais: Aplicacao do Metodo de Avaliacao Contingente. (With English summary.)

AU: Pessoa,-Ruben; Ramos,-Francisco-S.

SO: Revista-Brasileira-de-Economia; 52(3), July-Sept. 1998, pages 405-26.

AB: The measurement of environmental impacts of productive and consumption activities is difficult to accomplish, given that a specific market doesn't exist for environmental assets. However, when thinking about the adoption of politics, it is necessary to have a monetary evaluation of those effects. This paper intends to discuss the method of contingent valuation, applying it to a specific situation. The microeconomic foundations are presented as well as the willingness to pay (WTP) and willingness to receive (WTR) concepts, besides the reasons for the disparities among WTP and WTR and the main problems of the method. An application is made to evaluate the natural resources of the state of Roraima, where a logistic model is used to estimate the WTP for the preservation of the natural assets.

TI: Valuing International Tourism Benefits from Natural Areas

AU: Leon,-Carmelo-J.

SO: Tourism-Economics; 3(2), June 1997, pages 119-36.

AB: Tourism involves intensive utilization of environmental assets and natural resources. Valuing these assets may be relevant for policy purposes. This paper presents results from a contingent valuation study of the benefits experienced by tourist visitors to natural areas in Gran Canaria (Canary Islands). Construct validity is approached by investigating question format effects. The open-ended format is compared with dichotomous choice methods using a general parametric testing procedure. In general, the single-bounded method does produce larger estimates of consumer surplus than the open-ended method, but these divergences were not significant for German and Italian tourists. In addition, the double-bounded method converges to open-ended results, especially for UK tourists. The former method is also robust with respect to the choice of the bid vector design. The assessed benefits highlight the economic contribution of these assets to the tourism industry.

TI: Existence Value and the Contingent Valuation Method

AU: Quiggin, -John

SO: Australian-Economic-Papers; 37(3), September 1998, pages 312-29.

TI: Joint Estimation of Multiple CVM Scenarios under a Double Bounded Questioning Format

AU: Riddel, -Mary; Loomis, -John

SO: Environmental-and-Resource-Economics; 12(1), July 1998, pages 77-98.

AB: Contingent valuation surveys frequently ask the same respondent for willingness to pay (WTP) for either different programs or different levels of provision of a single program. When multiple scenarios are considered by the respondent, the errors in the estimates of WTP are likely to be correlated across scenarios. Failing to account for correlation may lead to erroneous inferences concerning differences in WTP. This paper presents a technique that can be used to jointly estimate WTP for multiple scenarios proposed within a survey when the double-bounded questioning format is used. Monte Carlo simulations are employed to show that estimates derived from the joint model provide lower parameter variances as well as tighter confidence intervals surrounding WTP. The model is used to estimate WTP values for data collected in telephone interviews of California residents concerning WTP for fire reduction programs in Oregon and California. Variance properties of these estimates are shown to be similar to those estimated using simulated data.

TI: Using Contingent Ranking to Estimate the Loss of Amenity Value for Inland Waterways from Public Utility Service Structures

AU: Garrod, -Guy; Willis, -Ken

SO: Environmental-and-Resource-Economics; 12(2), September 1998, pages 241-47.

AB: A contingent ranking exercise was used to estimate the amenity loss for recreational users associated with pylons, overhead cables and pipelines along canals. Over 80 percent of canal users were willing to pay higher utility bills to reduce the number of service structures found along canals. Aggregated across all canal users, mean annual willingness to pay for a 1 percent decrease in service structures was estimated to be nearly 750,000 pounds. The implications of these findings could be significant in any future negotiations between British Waterways and those companies responsible for siting pipelines and cables along canals.

TI: Why Give up Money for the Baltic Sea? Motives for People's Willingness (or Reluctance) to Pay

AU: Soderqvist,-Tore

SO: Environmental-and-Resource-Economics; 12(2), September 1998, pages 249-54.

AB: A contingent valuation survey about a reduction of the eutrophication of the Baltic Sea provided data about respondents' motives for their answers to the willingness to pay question. A categorization of the motives allowed an identification of protesters against the valuation scenario. The categorization also illustrated that a teleological ethical perspective is not shared by all respondents and that some respondents perceive human indirect use of ecosystems.

TI: The Market Value of Preventive Activities: A Contingent-Claims Approach

AU: Eeckhoudt,-Louis; Godfroid,-Philippe

SO: Journal-of-Economics-(Zeitschrift-fur-Nationalokonomie); 68(1), 1998, pages 27-38.

AB: In a contingent-claims approach the market value of preventive investments is determined. The lower the initial probability of accident, the greater is the market value of a reduction in this probability. Besides, at initially low probabilities, ceteris paribus, the market gives a higher value to a reduction in accident probability when aggregate (correlated) catastrophic risks rather than independent ones are involved. The reverse occurs at initially high probabilities.

TI: The Endangered Species Act and Economic Values: A Comparison of Fines and Contingent Valuation Studies

AU: Eagle,-Joshua-G.; Betters,-David-R.

SO: Ecological-Economics; 26(2), August 1998, pages 165-71.

TI: Contingent Valuation and Real Economic Commitments: A Private Good Experiment

AU: Willis,-K.-G.; Powe,-N.-A.

SO: Journal-of-Environmental-Planning-and-Management; 41(5), September 1998, pages 611-19.

TI: Contingent Valuation and Real Economic Commitments: A Private Good Experiment

AU: Willis,-K.-G.; Powe,-N.-A.

SO: Journal-of-Environmental-Planning-and-Management; 41(5), September 1998, pages 611-19.

TI: Referendum Design and Contingent Valuation: The NOAA Panel's No-Vote Recommendation

AU: Carson,-Richard-T. et-al.

SO: Review-of-Economics-and-Statistics; 80(3), August 1998, pages 484-87.

AB: This paper considers the effects for offering a 'would-not-vote' option in contingent valuation (CV) questions framed using the referendum format. This approach arises from a suggestion made by the National Oceanic and Atmospheric Administration's (NOAA) panel on contingent valuation. The NOAA panel was asked to evaluate the use of this method for estimating the economic value of nonmarketed

environmental resources in the context of natural resource damage assessments. This test used the CV questionnaire developed for the study of the Exxon Valdez oil spill conducted by the State of Alaska with in-person interviews. The findings suggest that when those selecting the 'would-not-vote' response are treated as having voted 'against' the program (a conservative coding), offering this option does not alter (1) the distribution of 'for' and 'against' responses (2) the estimates of willingness to pay derived from these choices, or (3) the construct validity of the results.

TI: Valeur de preservation de la qualite de l'eau souterraine: Une Comparaison entre usagers et non-usagers. (Preservation value for Groundwater Quality: A Comparison between Users and Non-users. With English summary.)

AU: Rozan, -Anne; Stenger, -Anne; Willinger, -Marc

SO: Cahiers-d'Economie-et-Sociologie-Rurales; 0(45), 4th Trimester 1997, pages 61-92.

AB: We report the results of a contingent valuation study on the willingness-to-pay (WTP) for preserving groundwater quality in the Alsace region (France). The resource is a large aquifer which supplies 80% of the households of the region. The purpose of our paper is to compare the results of two separate studies, one concerning households that are supplied by water from the aquifer (users) and households which are currently supplied by a different source than the aquifer (non-users). Non-users are households which are located in an area close enough from the aquifer to become eventually supplied by groundwater in the future.

TI: Contingent Valuation of the Public Benefits of Agricultural Wildlife Management: The Case of Dutch Peat Meadow Land

AU: Brouwer, -Roy; Slangen, -Louis-H.-G.

SO: European-Review-of-Agricultural-Economics; 25(1), 1998, pages 53-72.

AB: The public benefits of agricultural wildlife management are estimated by means of the contingent valuation method. Households are asked for their willingness to pay for wildlife preservation measures taken by farmers. Corresponding with the survey's three-stage budgeting structure, a non-linear recursive model is used to test the study's construct validity. Since the method is not undisputed and rapidly evolving, the outcomes of the study are accompanied by an extensive discussion of the way the method is applied. A rough cost-benefit analysis indicates that current policy towards management agreements is justified based on the neo-Paretian welfare criterion.

TI: Part-Whole Bias in Contingent Valuation: Will Scope Effects Be Detected with Inexpensive Survey Methods?

AU: Whitehead, -John-C.; Haab, -Timothy-C.; Huang, -Ju-Chin

SO: Southern-Economic-Journal; 65(1), July 1998, pages 160-68.

AB: The purpose of this paper is to test for scope effects with the contingent valuation method. The authors use data from a telephone survey focusing on water quality improvements in the Albemarle and Pamlico Sounds in North Carolina. They find that the willingness to pay estimates are sensitive to the scope of the policy. These results suggest that the use of inexpensive survey methods may not be the cause of the failure to detect scope effects in some recent contingent valuation studies.

TI: Health Care Contingent Valuation Studies: A Review and Classification of the Literature

AU: Diener, -Alan; O'Brien, -Bernie; Gafni, -Amiram

SO: Health-Economics; 7(4), June 1998, pages 313-26.

TI: Considering conservation Value in Economic Appraisals of Coastal Resources

AU: Goodman, -S.-L.; Seabrooke, -W.; Jaffry, -S.-A.

SO: Journal-of-Environmental-Planning-and-Management; 41(3), May 1998, pages 313-36.

AB: Measuring the economic value of environmental quality is useful to evaluate policies that affect the use of natural resources. This paper presents the findings of a contingent valuation (CV) survey designed to measure non-use values for the natural coastal environment. This was attempted through evaluating public and scientific values of conservation quality. The results suggest that public perceptions of conservation quality are multidimensional, and that it may be difficult for some individuals to express their preferences for the conservation value of natural resources in monetary terms. Additionally, public and scientific judgments differ concerning some of the physical attributes imparting conservation value. These findings have important implications on efforts to consider environmental quality in land and coastal use decisions.

TI: Testing the Validity of Responses to Contingent Valuation Questioning

AU: Bennett, -Jeff; Morrison, -Mark; Blamey, -Russell

SO: Australian-Journal-of-Agricultural-and-Resource-Economics; 42(2), June 1998, pages 131-48.

AB: One way of assessing the validity of results generated through the application of the Contingent Valuation Method (CVM) is through the analysis of response sensitivity to factors expected to have an influence. Scope testing involves presenting at least two alternative impact scenarios to population sub-samples and testing for differences between the estimates generated. Most applications of the CVM in Australia have not involved scope testing and those that have yielded mixed results. These studies are reviewed. The results of scope sensitivity and other validity tests are presented for a study aimed at estimating the value of environmental damage caused by dryland salinity in the Upper South East of South Australia.

TI: A Note on Consistent Estimation of Mean WTP Using a Misspecified Logit Contingent Valuation Model

AU: Creel, -Michael

SO: Journal-of-Environmental-Economics-and-Management; 35(3), May 1998, pages 277-84.

AB: Monte Carlo evidence has shown that simple, misspecified referendum contingent valuation (CV) models sometimes lead to good estimates of mean willingness to pay (WTP). Empirical studies have found that estimates of mean WTP derived from simple parametric models often differ little from those derived from nonparametric methods. This indicates that simple models can potentially yield WTP estimators that are relatively unbiased. This note shows that very simple logit referendum CV models will estimate mean WTP consistently if the survey bids are drawn randomly from a uniform distribution. (c) 1998 Academic Press

TI: Differences between Willingness-to-Pay Estimates from Open-Ended and Discrete-Choice Contingent Valuation Methods: The Effects of Heteroscedasticity

AU: Halvorsen,-Bente; Saelensminde,-Kjartan

SO: Land-Economics; 74(2), May 1998, pages 262-82.

AB: Most comparative studies find that the discrete-choice contingent valuation method yields higher willingness-to-pay (WTP) estimates than the open-ended format. In this paper, the authors discuss and test several hypotheses to explain why WTP estimates from open-ended and discrete-choice contingent valuation method questions differ. They find that WTP estimates from discrete-choice data are very sensitive to assumptions made about the random utility. In particular, violation of the homoscedasticity assumption may lead to biased WTP estimates if the error terms are correlated with the cost. This violation was a main source of difference in WTP estimates in the authors' studies.

TI: Paired Comparison Estimates of Willingness to Accept versus Contingent Valuation Estimates of Willingness to Pay

AU: Loomis,-John et-al.

SO: Journal-of-Economic-Behavior-and-Organization; 35(4), May 1998, pages 501-15.

AB: Estimating empirical measures of an individual's willingness to accept that are consistent with conventional economic theory, has proven difficult. The method of paired comparison offers a promising approach to estimate willingness to accept. This method involves having individuals make binary choices between receiving a particular good or a sum of money. Willingness to accept can be inferred from the ranking of dollar amounts and the good of interest. Using the paired comparison approach, mean (median) willingness to accept for a private good is estimated at \$59(\$52). Contingent valuation estimate of willingness to pay for the same good yields a mean (median) of \$28(\$28). While these estimates are statistically different, the ratio of willingness to accept to willingness to pay is less than in most previous studies and closer to ratios found in actual cash experiments. Coauthors are George Paterson, Patricia Champ, Thomas Brown, and Beatrice Lucero.

TI: Effects of Total Cost and Group-Size Information on Willingness to Pay Responses: Open Ended vs. Dichotomous Choice

AU: Bohara,-Alok-K. et-al.

SO: Journal-of-Environmental-Economics-and-Management; 35(2), March 1998, pages 142-63.

AB: This contingent valuation (CV) study investigates the potential of cost-influenced responses in open-ended (OE) and dichotomous choice (DC) formats. For both formats we cross split-sample information treatments to provide: a total cost of the project treatment, a group-size treatment, a combined treatment, and the baseline control group. Investigations are undertaken using a CV survey for a particular environmental good (the "field"), and in an induced value experimental laboratory setting with real payoffs and a context-free, publicly provided good (the "lab"). Results show that DC values are not affected by cost and/or group-size information while the OE values are (negatively) affected. Coauthors are Michael McKee, Robert P. Berrens, Hank Jenkins-Smith, Carol L. Silva, and David S. Brookshire. (c) 1998 Academic Press

TI: Resource Quality Information and Validity of Willingness to Pay in Contingent Valuation

AU: Blomquist,-Glenn-C.; Whitehead,-John-C.

SO: Resource-and-Energy-Economics; 20(2), June 1998, pages 179-96.

AB: Elicitation of valid statements of contingent value requires survey participants who are familiar with the environmental resource change. A primary purpose of the contingent market must be to assure familiarity by providing information. Information about resource quality is important when incompletely informed respondents, say nonusers, perceive resource quality which diverges from true quality. Differences in perceived quality and true quality can be influenced as respondents learn from information in the contingent market. By presenting survey participants with information about four wetlands of varying qualities we test for information effects in a dichotomous choice contingent market for wetlands allocation. We find that information about quality is a determinant of willingness to pay for wetland preservation. Information about resource quality presented in contingent markets will result in more valid valuations of changes in allocations of environmental resources.

TI: Using Contingent Valuation to Estimate a Neighbourhood's Willingness to Pay to Preserve Undeveloped Urban Land

AU: Breffle,-William-S.; Morey,-Edward-R.; Lodder,-Tymon-S.

SO: Urban-Studies; 35(4), April 1998, pages 715-27.

AB: Contingent valuation (CV) is used to estimate a neighbourhood's willingness to pay (WTP) to preserve a 5.5-acre parcel of undeveloped land in Boulder, Colorado, that provides views, open space and wildlife habitat. Households were surveyed to determine bounds on their WTP for preservation. An interval model is developed to estimate sample WTP as a function of distance, income and other characteristics. The model accommodates individuals who might be made better off by development and addresses the accumulation of WTP responses at zero. Weighted sample WTP estimates are aggregated to obtain the neighbourhood's WTP. This application demonstrates that contingent valuation is a flexible policy tool for land managers and community groups wanting to estimate WTP to preserve undeveloped urban land.

TI: Opportunities and Limitations of Contingent Valuation Surveys to Determine National Park Entrance Fees: Evidence from Costa Rica

AU: Shultz,-Steven; Pinazzo,-Jorge; Cifuentes,-Miguel

SO: Environment-and-Development-Economics; 3(1), February 1998, pages 131-49.

AB: A contingent valuation method (CVM) survey to determine foreign and resident willingness to pay (WTP) for return visits to two different Costa Rican national parks was administered in 1995. WTP values were estimated for future entrance fees associated with proposed improvements to infrastructure and services in the Poas Volcano and the Manuel Antonio parks. Resulting logistic CVM models were statistically robust and mean WTP for entrance fees differed among the parks and were considerably higher than current fees. Results indicate that even in a developing country setting, the CVM is a useful tool to help determine park entrance fees in spite of the following methodological limitations which are recommended for further study: the need to include potential park visitors in survey samples; the lack of detailed information framing and contingent scenarios for park related WTP questions; and the threat of cultural-strategic biases when surveying residents of a developing country.

TI: What Level of Information Enables the Public to Act Like Experts When Evaluating Ecological Goods?

AU: Kenyon,-Wendy; Edwards-Jones,-Gareth

SO: Journal-of-Environmental-Planning-and-Management; 41(4), July 1998, pages 463-75.

AB: Although contingent valuation is widely discussed in the literature as a technique for environmental valuation, it is well recognized that a number of problems are associated with its use. This paper seeks to address two of these problems: the difficulty of externally verifying the results of a CV study; and the choice of an appropriate level of information to provide to respondents. Four sites were evaluated, first by expert ecologists and then by the general public using the CV method. In conducting the CV, six different categories of information were presented to different groups of respondents to test, which was most appropriate. The results show that, given an information set consisting of photographic, textual and ecological data, respondents to a CV study were able to rank the four sites in the same order as ecological experts. This may be seen as a form of external verification to the results of the contingent valuation.

TI: Revealing Preferences for Reductions of Public Risks: An Application of the CV Approach

AU: Romer,-Anselm-U.; Pommerehne,-Werner-W.; Feld,-Lars-P.

SO: Journal-of-Environmental-Planning-and-Management; 41(4), July 1998, pages 477-503.

AB: In this paper the contingent valuation method (CVM) is applied to public risk reduction. Theory suggests that the size of the stated willingness to pay (WTP) for risk reduction depends on private activities aimed at reducing the risk level for the individual. The empirical results suggest that considering private averting activities increases the explanatory power of the estimated WTP function significantly. Thus, WTP passes the scope test which proposes that larger reductions from a larger baseline risk should be valued, higher than lower risk reductions from a lower baseline risk. Furthermore, we demonstrate that the follow-up response format induces anchoring effects.

TI: Determinants of Individuals' Willingness to Pay for Perceived Reductions in Environmental Health Risks: A Case Study of Bathing Water Quality

AU: Georgiou,-S. et-al.

SO: Environment-and-Planning-A; 30(4), April 1998, pages 577-94.

AB: A contingent valuation (CV) study was undertaken to investigate individuals' stated willingness to pay (WTP) to reduce perceived risks of illness from the quality of bathing water at two beaches in East Anglia, United Kingdom. One beach, Great Yarmouth, failed to meet the EC (European Community) Bathing Water Quality Directive standard, whereas the other at Lowestoft passed. The analysis focuses on determinants of individuals' WTP, including measures of risk perception and attitudes to health not usually measured in CV studies. A conceptual model is then presented which sets the valuation of individual preferences in the context of personal worldviews, and external cultural, societal, and environmental factors which may influence, directly or indirectly, an individual's stated WTP.

TI: Using Contingent Valuation to Measure the Compensation Required to Gain Community Acceptance of a Lulu: The Case of a Hazardous Waster Disposal Facility

AU: Groothuis,-Peter-A.; Van-Houtven,-George; Whitehead,-John-C.

SO: Public-Finance-Review; 26(3), May 1998, pages 231-49.

TI: Valuing Water Quality Monitoring: A Contingent Valuation Experiment Involving Hypothetical and Real Payments

AU: Spencer,-Michael-A.; Swallow,-Stephen-K.; Miller,-Christopher-J.

SO: Agricultural-and-Resource-Economics-Review; 27(1), April 1998, pages 28-42.

AB: This paper studies the preferences and willingness-to-pay of individuals for volunteer water quality monitoring programs. The study involves supporting water quality monitoring at two ponds in the state of Rhode Island. The paper uses both a hypothetical and a real-payment contingent valuation survey to directly measure individual preferences and willingness-to-pay (WTP) for volunteer water quality monitoring at the two ponds. The overall results of the study suggest that hypothetical WTP is not statistically greater than real WTP, and that the average survey respondent is willing to support water quality monitoring on one of the two ponds. The study also finds that the specified purpose of water quality monitoring and certain socioeconomic characteristics of a respondent significantly affect the respondent's decision to support volunteer water quality monitoring.

TI: Decisiveness, Attitude Expression and Symbolic Responses in Contingent Valuation Surveys

AU: Blamey,-Russell-K.

SO: Journal-of-Economic-Behavior-and-Organization; 34(4), March 1998, pages 577-601.

AB: Despite suggestions that respondents to contingent valuation studies often follow alternate models of individual decision making, few theoretical models have been developed. This paper presents a theoretical model of symbolic and attitude-expressive contingent valuation responses, drawing on relevant contributions in psychology and political science. It is argued that the highly symbolic and emotional nature of many environmental issues often activates the need for individuals to express their attitudes and values, which, when coupled with a perceived nondecisiveness of individual questionnaire responses, can result in value-expressive considerations dominating some CVM responses at the expense of the desired outcome-appraisal economic trade-offs. The implications for some topical issues in CVM are explored.

TI: Improved Estimation of Willingness to Pay in Dichotomous Choice Contingent Valuation Studies

AU: Langford,-Ian-H. et-al.

SO: Land-Economics; 74(1), February 1998, pages 65-75.

AB: This paper uses recently developed statistical techniques to achieve improved parameter estimates from models of dichotomous choice contingent valuation data. Random effects associated with bid amounts presented to respondents are modeled alongside the variance of individual responses to give a nested model which more truly reflects the structure of the data being analyzed. Quasi-likelihood methods for estimating parameters in such hierarchical models are discussed and a simulation method for assessing goodness of fit is demonstrated.

However, estimated parameters may still be biased and, hence, a parametric bootstrap technique is presented and compared to a delta method approximation. Coauthors are Ian J. Bateman, Andrew P. Jones, Hugh D. Langford, and Stavros Georgiou.

TI: Contingent Valuation versus Choice Experiments: Estimating the Benefits of Environmentally Sensitive Areas in Scotland

AU: Hanley, -Nick et-al.

SO: Journal-of-Agricultural-Economics; 49(1), January 1998, pages 1-15.

AB: This paper reports results from a study of the economic value of the conservation benefits of Environmentally Sensitive Areas (ESAs) in Scotland. The main novelty of the approach taken is in comparing two direct valuation methods, named contingent valuation and choice experiments, to value these benefits. The Contingent Valuation Method (CVM) is well established as a technique for valuing the sorts of landscape and wildlife enhancements associated with ESAs. The CVM experiment reported here uses a dichotomous choice format, and includes a new correction for part-whole bias. Choice experiments are much less used as an environmental valuation technique. We note several advantages of such experiments over CVM, and then report characteristic values and 'programme values' estimated using the method. This application brings to light some problems in applying the choice experiment method. Finally, we discuss the issue of benefits transfer in the context of these two approaches to valuation. Coauthors are Douglas MacMillan, Robert E. Wright, Craig Bullock, Ian Simpson, Dave Parsisson, and Bob Crabtree.

TI: Valoracion contingente para la creacion de la reserva "shangri-la", en la VIII region. (With English summary.)

AU: Cerda, -Arcadio; Riofrio, -Mercedes; Vial, -Fernando

SO: Lecturas-de-Economia; 0(47), July-Dec. 1997, pages 47-63.

AB: Using the contingent valuation method with a dichotomic question format the creation of a natural reserve in the VIII Region is valued. The valuation is carried out using the sample globally and stratified according to the interviewee's income; the results show that there is a different willingness to pay depending on the economic stratum of the interviewee. Additionally, the existence of a positive willingness to pay for the preservation of environmental resources even in very low income levels is determined. The estimates allow to obtain aggregate measures of welfare which properly reflect the population willingness to pay for the creation of a Reserve, as the basis for policy decision making affecting the supply of environmental goods.

TI: Nonmarket Value of Western Valley Ranchland Using Contingent Valuation

AU: Rosenberger, -Randall-S.; Walsh, -Richard-G.

SO: Journal-of-Agricultural-and-Resource-Economics; 22(2), December 1997, pages 296-309.

AB: With the irreversible loss of agricultural land to development uses in certain areas, there is increased concern that land be preserved for posterity's sake. We estimate the nonmarket value of a ranchland protection program in the Yampa River Valley in Routt County, Colorado, including the Steamboat Springs resort. The case study builds on previous land preservation studies by adding several preference indicators. We find that local residents' willingness to pay

is substantial, but insufficient, to justify protecting the existing quantity of valley ranchland in the study area.

TI: Applying Socio-ecological Economics: A Case Study of Contingent Valuation and Integrated Catchment Management

AU: Cameron, -John-I.

SO: Ecological-Economics; 23(2), November 1997, pages 155-65.

TI: Valuation of Tropical Rainforests: Philosophical and Practical Issues in the Use of Contingent Valuation

AU: Carson, -Richard-T.

SO: Ecological-Economics; 24(1), January 1998, pages 15-29.

TI: Contingent Valuation and the Activation of Environmental Norms

AU: Blamey, -Russell

SO: Ecological-Economics; 24(1), January 1998, pages 47-72.

TI: Imprecise Preferences and Survey Design in Contingent Valuation

AU: Dubourg, -W.-R.; Jones-Lee, -M.-W.; Loomes, -Graham

SO: Economica; 64(256), November 1997, pages 681-702.

AB: During recent years, the contingent valuation (CV) method has been widely used to value non-marketed goods and services. The authors present the results of a CV study of the value of road safety. They find that stated preferences for road safety exhibit considerable imprecision, appear subject to various systemic biases, and are insensitive to variations in the quantity and quality of the safety improvements concerned. One broad implication of these findings may be that, for an important class of goods (of which safety is one example), standard assumptions about the structure of peoples preferences may be much too strong. A more specific implication, concerning the design and conduct of CV surveys, is that the NOAA Panel's widely cited blueprint for 'good CV practice' may rely far too heavily on assumptions about the precision and sensitivity of people's preferences.

TI: Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan

AU: Alberini, -Anna et-al.

SO: Journal-of-Environmental-Economics-and-Management; 34(2), October 1997, pages 107-26.

AB: A contingent valuation survey was conducted in Taiwan to elicit willingness to pay (WTP) to avoid a recurrence of the episode of acute respiratory illness most recently experienced by the respondent. We estimate a model in which willingness to pay depends on the attributes of the illness (duration and number of symptoms, and nature of the illness) and on respondent characteristics (such as income and health history), and allow mitigating behavior to be endogenously determined with willingness to pay. WTP of Taiwanese households is compared with benefits transfer extrapolations that adjust WTP for the United States by Taiwan household income, relative to U.S. household income. (c) 1997 Academic Press

TI: Measurement of Consumer-Patient Preferences Using a Hybrid Contingent Valuation Method

AU: O'Connor, -Richard-M.; Blomquist, -Glenn-C.

SO: Journal-of-Health-Economics; 16(6), December 1997, pages 667-83.

AB: This study introduces a hybrid, two-stage, contingent valuation method applied to asthma treatment. Respondents are initially offered a choice between hypothetical medications, implying a trade-off between safety and efficacy. Stage two elicits willingness to pay (WTP) for an improvement along a single risk dimension. Estimates of the value of asthma control based on the initial risk trade-off stage range from approximately US\$1,400 to US\$2,100 per year, assuming a US\$6 million value of life. Analysis of the second-stage WTP responses yield estimates for the value of a statistical life of approximately US\$9 million and for asthma control of approximately US\$2,200 per year.

TI: Aiding Priority Setting in Health Care: Is There a Role for the Contingent Valuation Method?

AU: Olsen, -Jan-Abel

SO: Health-Economics; 6(6), Nov.-Dec. 1997, pages 603-12.

AB: The paper discusses some methodological and measurement aspects with the contingent valuation (CV) method which appear to create problems when eliciting preferences for the relative social valuation of alternative health care programmes. After pointing to biases which tend to exaggerate the true valuations, emphasis is placed on framing issues when applied to health care. Thereafter the paper discusses the extent to which preferences elicited through one's willingness to pay can be used to infer how the respondent would prioritise between the health care programmes in question. New empirical evidence is presented which suggest discrepancies between a CV ranking and the ranking expressed when making a direct ordinal comparison.

TI: A Bug Is a Bug Is a Bug: Symbolic Responses to Contingent Valuation Questions about Forest Pest Control Programs?

AU: MacDonald, -Heather; McKenney, -Daniel-W.; Nealis, -Vince

SO: Canadian-Journal-of-Agricultural-Economics; 45(2), July 1997, pages 145-63.

TI: Valeur de preservation des eaux souterraines: Application de la methode d'evaluation contingente. (Preservation Value for the Groundwater: Application of the Contingent Valuation Method. With English summary.)

AU: Stenger-Letheux, -Anne

SO: Revue-d'Economie-Politique; 107(4), July-August 1997, pages 545-66.

TI: A Randomized Response Approach to Dichotomous Choice Contingent Valuation

AU: Berrens, -Robert-P.; Bohara, -Alok-K.; Kerkvliet, -Joe

SO: American-Journal-of-Agricultural-Economics; 79(1), February 1997, pages 252-66.

AB: In this paper, the authors combine dichotomous choice contingent valuation with the randomized response method for asking sensitive survey questions. Randomized response increases respondents' anonymity by allowing them to answer a sensitive question without revealing, with certainty, their true response. The authors combine randomized response with dichotomous choice contingent valuation for response effects in the valuation of a public good, in a setting of expected social pressure. While there are practical implementation issues, the authors' findings suggest that the randomized response technique is a useful tool for exploring social context effects. Rather than

generalize from their pretest results, the authors instead emphasize the development of the experimental technique.

TI: Combining Actual and Contingent Behavior Data to Model Farmer Adoption of Water Quality Protection Practices

AU: Cooper, -Joseph-C.

SO: Journal-of-Agricultural-and-Resource-Economics; 22(1), July 1997, pages 30-43.

AB: Using farmer responses to contingent valuation method (CVM) survey data in combination with actual market data from four watershed regions in the United States, this study estimates the minimum incentive payments a farmer would accept in order to adopt more environmentally friendly "best management practices (BMPs). Combining actual market data with the CVM data adds information to the analysis, thereby most likely increasing the reliability of the results compared to analyzing the contingent behavior survey response data only. Given the decision to adopt, the article also presents a pooled model for the number of acres enrolled in the BMPs as a function of the incentive payments. Adoption rates predicted with the combined data model are significantly higher over a wide range of offers than those predicted using the traditional discrete choice analysis with the hypothetical data only. Hence, using the traditional CVM analysis results to determine payments to attain a given level of adoption may result in over-payment.

TI: Contingent Valuation of Rural Tourism Development with Tests of Scope and Mode Stability

AU: Lindberg, -Kreg; Johnson, -Rebecca-L.; Berrens, -Robert-P.

SO: Journal-of-Agricultural-and-Resource-Economics; 22(1), July 1997, pages 44-60.

AB: Contingent valuation is used to measure the social impacts of tourism in rural Oregon communities. Impacts are substantial, for example, annual household willingness to pay (WTP) to reduce traffic congestion is \$186. Study features included tests of sensitivity to a change in scope, tests of stability across survey mode, and a thorough system of "no"-vote follow-up questions in a referendum format. While there is no evidence of scope effects (at the 0.05 level), results indicate that conclusions regarding sensitivity to scope may be dependent on the test used. WTP estimates are substantially less with the mail versus telephone survey mode.

TI: The Gains from Combining Travel Cost and Contingent Valuation Data to Value Nonmarket Goods

AU: Kling, -Catherine-L.

SO: Land-Economics; 73(3), August 1997, pages 428-39.

AB: This paper provides a critical assessment of the improvements in precision and bias to welfare measures from combining contingent valuation and travel cost data. Simulation experiments are performed using a variation of the model first suggested by T. Cameron (1992) with a focus on identifying likely lower bounds on these gains. In addition to examining single-bounded contingent valuation as a component of the combined model, this paper investigates additional gains that may accrue from employing a double-bounded variant of contingent valuation. Sizable gains in both bias and precision are found in the simulation experiments. The results suggest that additional investigation into these models is warranted.

TI: Non-users' Willingness to Pay for a National Park: An Application and Critique of the Contingent Valuation Method

AU: Bateman,-Ian-J.; Langford,-Ian-H.

SO: Regional-Studies; 31(6), August 1997, pages 571-82.

AB: A great deal of the ongoing academic debate concerning the contingent valuation (CV) method has focused upon whether or not the method is suitable for assessing non-use values. This paper presents results from a study examining non-users' values for preserving the Norfolk Broads, a wetland area of recognized international importance, from the threat of saline flooding. Discussion of results centres upon the validity of the CV method for eliciting unbiased estimates of non-use value. A graphical representation of findings from a variety of studies is presented to suggest that such results are logically ordered across goods and valuation scenarios. However, as the paper concludes, logicity and validity are not necessarily synonymous.

TI: Respondent Experience and Contingent Valuation of Environmental Goods

AU: Cameron,-Trudy-Ann; Englin,-Jeffrey

SO: Journal-of-Environmental-Economics-and-Management; 33(3), July 1997, pages 296-313.

AB: Respondent experience (i.e., a respondent's information set) has long been suspected to influence contingent valuation estimates of environmental values. We assess the influence of experience by explicitly modeling the relationship between respondent experience and both fitted individual resource values and the conditional variance of these estimated values. Using three different joint specifications for experience and WTP--normal/censored-normal, Poisson/censored-normal, and zero-inflated Poisson/censored-normal--we find discrete jumps in resource values as experience increases from zero and that more-experienced respondents have smaller conditional variances. Simulation of arbitrary levels of experience allows standardization of the amount of information when developing welfare estimates. (c) 1997 Academic Press

TI: The Non-Use Benefits of Enhancing Forest Biodiversity: A Contingent Ranking Study

AU: Garrod,-G.-D.; Willis,-K.-G.

SO: Ecological-Economics; 21(1), April 1997, pages 45-61.

AB: Until recently, the majority of commercial forestry in the UK has comprised blanket planting of non-native coniferous species which typically do not offer a high level of biodiversity. However, the UK government, and consequently the UK Forestry Commission, are committed under various international agreements to conserve and enhance biodiversity in British forests. The study reported in this paper estimates that substantial non-use values would be generated if the Forestry Commission were to continue in its current efforts to develop management practices that promote an increase in biodiversity across a large area of its commercial holdings in remote parts of the country which are seldom visited. Rather than adopting a referendum-type contingent valuation method, a discrete-choice contingent ranking approach is used to estimate the general public's willingness to pay to increase the area of these forests managed under each of three forest management standards designed to offer increasing levels of biodiversity at the expense of commercial timber production. This permits relative preferences for different forest management standards

to be measured at the same time as willingness to pay to enhance biodiversity.

TI: Economic Benefits of Maintaining Ecological Integrity of Rio Mameyes, in Puerto Rico

AU: Gonzalez-Caban,-Armando; Loomis,-John

SO: Ecological-Economics; 21(1), April 1997, pages 63-75.

AB: A contingent valuation in-person survey of Puerto Rican households was performed to estimate their willingness to pay for preserving in stream flows in the Rio Mameyes and avoiding a dam on the Rio Fajardo. Households annual willingness-to-pay amount was \$27 for the Rio Mameyes and \$28 for the Rio Fajardo. When expanded to the one million households in Puerto Rico on an annual basis this amounts to \$11.33 million for the Rio Mameyes and \$13.09 million for the Rio Fajardo. The household values can be compared to the costs of repairing water lines and in-home water conservation measures to determine whether there are more net benefits to these alternative sources of water than withdrawals from the Rio Mameyes.

TI: Willingness-to-Pay for Borivli National Park: Evidence from a Contingent Valuation

AU: Hadker,-Nandini et-al.

SO: Ecological-Economics; 21(2), May 1997, pages 105-22.

AB: A study was conducted to survey the residents of Bombay and elicit their willingness to pay for the maintenance and preservation of Borivli National Park (BNP) using the Contingent Valuation (CV) method. The CV method has come under considerable criticism on account of biases that are either inherent to, or generated by the survey process. The present study acknowledges those, and adopts techniques to either circumvent or then minimise them. The authors pay special attention to hypothetical bias, starting point bias, embedding effects and part-whole biases. The authors argue that indeed it is possible to improve the quality of a CV by using special survey as well as statistical techniques so that CV results can be used for the purposes of realistic decision making. This validation of the CV becomes an important objective of the study. Despite India being a developing country with medium to low income levels, the evidence suggested that people are willing to pay for preserving environmental amenities. Having statistically adjusted for embedding and anchoring effects, households are willing to pay exclusively for BNP, on average, Rs 7.5, per month, for the next five years. Extrapolating to the city of Bombay, this amounts to a substantial Rs 20 million each month for the next five years, or a present discounted value of in excess of Rs 1 billion, suggesting a strong interest in environmental conservation. Coauthors are Sudhir Sharma, Ashish David, and T. R. Muraleedharan.

TI: Temporal Reliability of Estimates from Contingent Valuation

AU: Carson,-Richard-T. et-al.

SO: Land-Economics; 73(2), May 1997, pages 151-63.

AB: In 1992 the National Oceanic and Atmospheric Administration (NOAA) convened a panel of prominent social scientists to assess the reliability of natural resource damage estimates derived from contingent valuation (CV). The panel recommended that 'time dependent measurement noise should be reduced by averaging across independently drawn samples taken at different points in time.' In this paper the authors examine the temporal reliability of CV estimates. Their

findings, using a CV instrument designed to measure willingness to pay for a program to protect Prince William Sound, Alaska, from future oil spills, exhibited no significant sensitivity to the timing of the interviews. Coauthors are W. Michael Hanemann, Raymond J. Kopp, Jon A. Krosnick, Robert C. Mitchell, Stanley Presser, Paul A. Ruud, and V. Kerry Smith.

TI: Valuing a Global Environmental Good: U.S. Residents' Willingness to Pay to Protect Tropical Rain Forests

AU: Kramer, -Randall-A.; Mercer, -D.-Evan

SO: Land-Economics; 73(2), May 1997, pages 196-210.

AB: Although contingent valuation is the most common technique for valuing nonmarket environmental resources, rarely has it been applied to global environmental goods. This study uses contingent valuation in a national survey to assess the value U.S. residents place on tropical rain forest protection. On average, respondents were willing to make a one-time payment of approximately \$21-31 per household to protect an additional 5 percent of tropical forests. Although respondents were able to give consistent responses across two different contingent valuation formats, focus groups were unwilling or unable to allocate their aggregate rainforest valuations across or among regions or specific rain forests.

TI: Preservation and Change in the Upland Landscape: The Public Benefits of Grazing Management

AU: Bullock, -Craig-H.; Kay, -Jim

SO: Journal-of-Environmental-Planning-and-Management; 40(3), May 1997, pages 315-34.

AB: A contingent valuation survey was undertaken to estimate the public benefits of landscape changes that could arise from reductions in grazing levels using the example of the Central Southern Uplands of Scotland. A dichotomous choice with continuous follow-up format was used to quantify the environmental benefit in terms of the willingness to pay of the general public and visitors. The paper discusses the merits of this format and the evidence of starting-point bias. In addition, the results are compared with the preferences of locals and interest groups as expressed through focus group sessions and subsets of the survey. A strong preference for more tree cover was evident, a landscape feature not well represented in the current landscape.

TI: Using Contingent Valuation to Determine Australian Tourists' Values for Forest Conservation in Vanuatu

AU: Flatley, -G.-W.; Bennett, -J.-W.

SO: Economic-Analysis-and-Policy; 26(2), September 1996, pages 111-27.

TI: Plural Values and Environmental Valuation

AU: Beckerman, -Wilfred; Pasek, -Joanna

SO: Environmental-Values; 6(1), February 1997, pages 65-86.

AB: The paper discusses some of the criticisms of contingent valuation (CV) and allied techniques for estimating the intensity of peoples' preferences for the environment. The weakness of orthodox utilitarian assumptions in economics concerning the commensurability of all items entering into peoples' choices is discussed. The concept of commensurability is explored as is the problem of rational choice between incommensurate alternatives. While the frequent claim that the environment has some unique moral intrinsic value is unsustainable, its preservation often raises ethical and other motivations that are not

commensurate with the values that people place on ordinary marketable goods. Nevertheless, CV is also claimed to have some advantages and it is concluded that little progress will be made in this area until both sides in the debate recognize what is valid in their opponents' arguments.

TI: Consumer Willingness to Pay for Reductions in the Risk of Food Poisoning in the UK

AU: Henson, -Spencer

SO: Journal-of-Agricultural-Economics; 47(3), September 1996, pages 403-20.

AB: The paper employs contingent valuation to estimate "willingness to pay" for reductions in the risk of food poisoning. The analysis accounts for the range of adverse health effects resulting from non-fatal cases of food poisoning as well as the risk of loss of life. A number of hypotheses regarding the value consumers attach to improvements in food safety are explored based on the results from a contingent valuation survey. Regression analysis is used to assess the factors influencing expressed "willingness to pay" for safer food, including demographic factors, personal experience of food poisoning and beliefs and attitudes about food-borne risk.

TI: Estimation of Willingness to Pay to Avoid Illness: A Comparison of Urban Areas and Areas Near Petrochemical Complexes in Taiwan. (In Chinese. With English summary.)

AU: Liu, -Jin-Tan; Chen, -Yi-Ting

SO: Academia-Economic-Papers; 24(3), September 1996, pages 397-431.

AB: In this paper we use the contingent valuation method to elicit respondents' willingness to pay (WTP) to avoid their most recent episode of illness. We then compare the amounts residents of urban areas are willing to pay with the amounts of people who live near large petrochemical complexes. The urban areas in the study include the cities of Taipei, Kaoshiung, and Hualien. The areas near petrochemical complexes are Linyuan and Daiser, both in Kaoshiung County. An illness episode is defined in the study by a complex of attributes, for instance, we use a measure of its severity, duration, and a set of symptoms. The willingness to pay is then specified as a function of the characteristics of the illness episode and the respondent's characteristics. The median WTP to avoid a recurrence of the episode is estimated to be NT\$1596 for the urban areas, and NT\$4831 for the areas near the petrochemical complexes.

TI: Valuing the Protection of Minimum In stream flows in New Mexico

AU: Berrens, -Robert-P.; Ganderton, -Philip; Silva, -Carol-L.

SO: Journal-of-Agricultural-and-Resource-Economics; 21(2), December 1996, pages 294-308.

AB: Currently, New Mexico law does not provide any legal avenue of protecting in stream flows. A change in the status quo requires that a prima facie case be made--establishing sufficient evidence of the public benefits from maintaining in stream flows to warrant consideration, or standing, in future water policy deliberations. Using the contingent valuation (CV) method, we investigate the nonmarket benefits of protecting minimum in stream flows in New Mexico. Results from a dichotomous choice CV telephone survey show significant nonmarket values for protecting in stream flows that are sensitive to a change in scope and insensitive to a group-size reminder.

TI: A Contingent Valuation Study of Uncertain Environmental Gains  
AU: Macmillan,-Douglas; Hanley,-Nick; Buckland,-Steve  
SO: Scottish-Journal-of-Political-Economy; 43(5), November 1996, pages 519-33.

AB: Acid deposition is a present and future cause of uncertain biodiversity losses in upland areas of Scotland important for nature conservation. Uncertainty complicates damage cost estimation and, in this paper, the authors explore the use of contingent valuation to measure willingness to pay for reduced acidification damage. Average willingness to pay was L247 and L351 per year per household under low and high damage scenarios respectively. Recovery level and recovery time did not significantly influence mean willingness to pay. When faced with risky outcomes regarding future damage and recovery, respondents were found to be risk averse to both environmental gains and losses.

TI: Evaluation contingente et paysages agricoles. Application au bocage de Loire-Atlantique. (Contingent Valuation and Agricultural Landscapes: An Application to the Loire-Atlantique Hedgerow Landscape. With English summary.)

AU: Colson,-Francois; Stenger-Letheux,-Anne  
SO: Cahiers-d'Economie-et-Sociologie-Rurales; 0(39-40), 1996, pages 151-77.

AB: We applied the contingent valuation to estimate the willingness to pay for preserving the agricultural landscapes of France and the willingness to pay to restoring the hedgerow landscapes in one region (Loire-Atlantique). With a mail survey and using a payment card (PC) and a set of photos, about 3000 households have been asked to value their willingness to pay for both scenarios, conservation and restoration.

TI: Searching for the Correct Benefit Estimate: Empirical Evidence for an Alternative Perspective

AU: Shabman,-Leonard; Stephenson,-Kurt  
SO: Land-Economics; 72(4), November 1996, pages 433-49.

AB: This paper contrasts the results of the contingent valuation, hedonic price, and property damages avoided valuation techniques. Each technique was used to estimate the value of flood risk reduction from the construction of a flood control project. Voting behavior in a referendum called specifically for the provision of the project was used to further interpret the results from the three valuation studies. Substantial differences were found between the estimates. In explaining these differences, an alternative perspective on the current debate over the validity and accuracy of nonmarket value estimates is offered.

TI: The Economic Benefits of Surface Water Quality Improvements in Developing Countries: A Case Study of Davao, Philippines

AU: Choe,-KyeongAe; Whittington,-Dale; Lauria,-Donald-T.  
SO: Land-Economics; 72(4), November 1996, pages 519-37.

AB: Two nonmarket valuation techniques--the contingent valuation method and travel cost model--are used to estimate the economic value that people in Davao, Philippines, place on improving the water quality of the rivers and sea near their community. The contingent valuation and travel cost estimates are very close to each other and are quite low, both in absolute terms and as a percentage of household income. These findings suggest that water pollution control is simply not a

high priority for Davao's residents, and support the argument that households' willingness to pay for environmental amenities, such as improved water quality, is low.

TI: Evaluation of Negative Externality by Pollutees

AU: Ozsabuncuoglu, -I.-H.

SO: Environment-and-Planning-C:-Government-and-Policy; 14(4), November 1996, pages 489-500.

AB: The use of water polluted by municipal and industrial waste for irrigating crops grown in Oguzeli (Gaziantep) creates significant problems in terms of crop and soil quality, human health, and the environment. The behavioral patterns of farmers is believed to be an important factor in solving environmental problems. In this paper, data were analyzed by using the contingent valuation technique, and a functional relationship based on the willingness to pay (WTP) of pollutees was established. Variance analysis and regression models provided support for the diminishing marginal WTP theory. Moreover, the contribution ratio, the area given over to nonirrigated dry land, and income from animal and dairy products are statistically meaningful variables in addition to total income and the area given over to vegetable production.

TI: Ordering Effects in Contingent Valuation Surveys: Willingness to Pay for Reduced Health Damage from Air Pollution

AU: Halvorsen, -Bente

SO: Environmental-and-Resource-Economics; 8(4), December 1996, pages 485-99.

TI: Tropical Forest Protection: An Empirical Analysis of the Costs Borne by Local People

AU: Shyamsundar, -Priya; Kramer, -Randall-A.

SO: Journal-of-Environmental-Economics-and-Management; 31(2), September 1996, pages 129-44.

AB: Contingent valuation is used to value tropical forest resources for a rural population in Africa. Welfare losses from land-use restrictions associated with a newly established national park in Madagascar are estimated with a willingness-to-accept format. Because of a limited local cash economy, the contingent valuation question is denominated in baskets of rice. The analysis indicates that contingent valuation can be successfully applied to rural households within the developing country context. The econometric analysis undertaken reveals a systematic association between various socioeconomic variables of interest and the expressed willingness-to-accept compensation for foregone land use. (c) 1996 Academic Press, Inc.

TI: Preservation or Use: A Contingent Valuation Study of Wilderness Designation in Utah

AU: Keith, -John-E.; Fawson, -Christopher; Johnson, -Van

SO: Ecological-Economics; 18(3), September 1996, pages 207-14.

AB: Evidence of strong opposition to wilderness proposals in Utah suggested that the non-market value of retaining those areas in multiple use management might be significant. A contingent value analysis of both supporters and opponents of the two major proposals for wilderness designation in Utah indicated that there existed significant non-market willingness to pay on the part of opponents, and that standard contingent valuation practice which does not explicitly

consider these values could lead to a mis-estimation of aggregate willingness to pay.

TI: Recreation Values and Kai Tahu Management: The Greenstone and Caples Valleys

AU: Kerr, -Geoffrey-N.

SO: New-Zealand-Economic-Papers; 30(1), June 1996, pages 19-38.

AB: Three Crown-owned pastoral leases at the head of Lake Wakatipu have been placed in a land bank for potential settlement of claims under the Treaty of Waitangi. Debate over the future of those leases has in some cases been based on arguments about who possesses rights to use or manage the land, and in other cases has been based upon the value of the land to alternative uses. This paper uses data collected by Cessford (1987) as the basis for application of the contingent valuation approach to categorical data to assist in resolution of the second form of argument.

TI: Ethical Beliefs and Behaviour in Contingent Valuation Surveys

AU: Hanley, -Nick; Milne, -Jennifer

SO: Journal-of-Environmental-Planning-and-Management; 39(2), June 1996, pages 255-72.

AB: A common assumption in the economic valuation of the environment is that environmental resources can essentially be treated identically to produced goods and services in estimating welfare measures. The most critical aspect of this assumption in this regard is that individuals are willing to trade-off environmental quality changes in exchange for changes in their income. In this paper, we briefly review some of the conceptual arguments over this issue, and existing empirical evidence, before presenting the results of a new pilot study, which addresses some of the possible problems in viewing the environment in this fashion.

TI: Analysing Conflict between Cultural Heritage and Nature Conservation in the Australian Alps: A CVM Approach

AU: Lockwood, -Michael; Tracey, -Phillip; Klomp, -Nick

SO: Journal-of-Environmental-Planning-and-Management; 39(3), September 1996, pages 357-70.

AB: The contingent valuation method (CVM) can be useful for assessing the nonmarket economic values associated with government land use decisions. A particular variant of CVM, which is based on dichotomous choice responses, has become widely used. Previous studies have employed a variety of techniques for analysing dichotomous choice CVM data to produce estimates of economic welfare changes. This paper summarizes these analytical options and illustrates their application in a case study concerning cattle grazing on the Bogong High Plains in the Australian Alps. This case study is one of the few to assess the nonmarket economic value of cultural heritage conservations using contingent valuation and is also unusual in that the competing values are both nonmarket in character. Nature conservation and heritage values were separately measured using two independent surveys. Mean willingness to pay for nature conservation and cultural heritage were estimated using a range of parametric and nonparametric methods.

TI: Testing the Reliability of the Benefit Function Transfer Approach

AU: Downing, -Mark; Ozuna, -Teofilo, Jr.

SO: Journal-of-Environmental-Economics-and-Management; 30(3), May 1996, pages 316-22.

AB: This article presents an experiment designed to test the reliability of the benefit function transfer approach using contingent valuation methods. The experiment uses data collected from anglers surveyed across eight contiguous Texas Gulf Coast bay regions over three distinct time periods. Results indicate that the benefit function transfer approach tends to over-estimate benefits, implying that, at least for the case of recreational saltwater fishing Texas, the benefit function transfer approach is not reliable. (c) 1996 Academic Press, Inc.

TI: Contingent Valuation of Traffic Noise Reduction Benefits

AU: Soguel,-Nils

SO: Schweizerische-Zeitschrift-fur-Volkswirtschaft-und-Statistik/Swiss-Journal-of-Economics-and-Statistics; 132(1), March 1996, pages 109-23.

TI: El valor de los espacios de interes natural en Espana. Aplicacion de los metodos de la valoracion contingente y el coste del desplazamiento. (The Value of Spaces of Natural Interest in Spain. An Application of the Contingent Valuation and Travel Cost Methods. With English summary.)

AU: Riera,-Pere; Descalzi,-Carles; Ruiz,-Alex

SO: Revista-Espanola-de-Economia; 0(0), Special Issue 1994, pages 207-29.

AB: In the past, the Travel Cost Model (TCM) has been the most frequently used method to value recreational goods in the absence of market. However, among all the methods available to value environmental externalities, the Contingent Valuation Method (CVM) has been the most popular among economists over the last few years. Both in the U.S. and Europe the number of CVM applications and theoretical papers is increasing sharply. This trend is starting to be found in Spain too. This article presents an application of TCM and CVM to value an area of natural interest in the Catalan Pirynees and offers a comparison of the results from both methods. Theoretically, one could expect to find CV values to be larger than TC values, since the former also accounts for option values. However, the results of the Spanish application show otherwise. Other recent studies suggest the same controversial results. The paper also deals with some other aspects present in the international debate on the use of valuation methods for non-market goods.

TI: Contingent Valuation and Actual Behavior: Predicting Connections to New Water Systems in the State of Kerala, India

AU: Griffin,-Charles-C. et-al.

SO: World-Bank-Economic-Review; 9(3), September 1995, pages 373-95.

AB: In 1988, families in Kerala State in India were surveyed to ascertain their willingness to pay for household connections to a piped water supply system. In 1991 the families in these communities were surveyed again and their actual decisions recorded. This article explores the validity of the findings of the 1988 study on the basis of actual behavior. It looks at the question of benefit revelation: did people behave as they said they would? And it looks at the question of benefit transfer: did people in one site behave as they were predicted to behave, on the basis of the predictions of a behavioral model for a different site? The data were also used to analyze the policy relevance of behavioral modeling. Coauthors are John Briscoe, Bhanwar Singh, Radhika Ramasubban, and Ramesh Bhatia.

TI: Environmentally Friendly Agricultural Practices: An Application of the Contingent Valuation Method

AU: Cooper, -Joseph-C.

SO: Cahiers-d'Economie-et-Sociologie-Rurales; 0(34-35), 1st-2nd Trimester 1995, pages 111-22.

AB: Over time, public concerns over the contribution of agricultural pollutants to the degradation of surface and ground water supplies has been increasing. To address this concern, one existing government program provides incentive payments to farmers to encourage them to adopt more environmentally benign production practices than they currently use. However, current payment levels are fixed. Hence, farmer response to different incentive payment levels is not known. This paper presents a model for estimating the probability of farmer adoption of environmentally sound management practices as a function of offered incentive payments. A modification of the random utility model is used to analyze survey results for farmers in several regions of the USA.

TI: Measuring the Demand for Improved Urban Sanitation Services: Results of a Contingent Valuation Study in Ouagadougou, Burkina Faso

AU: Altaf, -Mir-Anjum; Hughes, -Jeffrey-A.

SO: Urban-Studies; 31(10), December 1994, pages 1763-76.

AB: In developing countries, there are few institutional mechanisms for the incorporation of demand information in the planning of public services. As a result, misjudgments about consumer preferences have often led to poor project design and performance. The contingent valuation method which relies on direct elicitation of consumer preferences and willingness to pay has emerged as one approach to address this short-coming. The paper describes an application of the method to facilitate demand-driven planning for provision of improved sanitation in Ouagadougou, Burkina Faso. The results suggest that demand information about unfamiliar technologies can be successfully obtained and can serve as a useful input in the design of public services.

TI: Willingness to Pay for Desert Protection

AU: Richer, -Jerrell

SO: Contemporary-Economic-Policy; 13(4), October 1995, pages 93-104.

AB: This paper uses a referendum-style survey approach known as dichotomous-choice contingent valuation to estimate the benefits of restricting the uses of 6.9 million acres of desert land. Statistical techniques estimate the value to California residents of creating three new national parks and 76 new wilderness areas in the high and low deserts of eastern California. The total amount that California residents would be willing to pay to enact desert protection legislation ranges from \$177 million to \$448 million per year. This estimate hinges on the assumptions that (1) the residents who did not complete and return the survey questionnaire ("nonrespondents") would receive no benefits from desert protection and (2) the estimate of willingness to pay for the "respondents" is unbiased.

TI: Contingent Valuation Methodology in the Natural Resource Damage Regulatory Process: Choice Theory and the Embedding Phenomenon

AU: Binger, -Brian-R.; Copple, -Robert; Hoffman, -Elizabeth

SO: Natural-Resources-Journal; 35(3), Summer 1995, pages 443-59.

AB: In their most recent article on the use of Contingent Valuation Methodology ("CVM") in the natural resource damages assessment ("NRDA")

process, the authors take issue with the CVM components of the National Oceanic and Atmospheric Administration's ("NOAA") proposed NRDA rules. In particular, the authors argue that NOAA's proposed NRDA process does not comport with basic tenets of choice theory and that the CVM safeguards created by NOAA are not adequate to address the inherent, and perhaps irreconcilable, flaws in CVM assessments. To illustrate their arguments, the authors examine and criticize NOAA's treatment and general disregard of the embedding phenomenon. The author's argue that the existence of the embedding phenomenon in CVM valuations demonstrates the inappropriateness of CVM as a regulatory tool in the NRDA process.

TI: The Value of Footpath Provision in the Countryside: A Case-Study of Public Access to Urban-Fringe Woodland

AU: Bennett,-Richard et-al.

SO: Journal-of-Environmental-Planning-and-Management; 38(3), September 1995, pages 409-17.

AB: This paper presents a case-study of valuation of public access to a woodland site owned by The Crown Estate in Windsor Forest. It supports the view that contingent valuation is an appropriate technique to use for assessing recreational benefits in the countryside and that consistent and useful results can be obtained. The study found that the recreational benefits far outweighed the costs of access provision, thus giving reassurance to the providers that their efforts are worthwhile. Coauthors are Richard Tranter, Nick Beard, and Philip Jones.

TI: Agricultural Landscape Cultivation in Austria: An Application of the CVM

AU: Pruckner,-Gerald-J.

SO: European-Review-of-Agricultural-Economics; 22(2), 1995, pages 173-90.

AB: This paper evaluates the economic benefits associated with agricultural landscape-cultivating services provided as an input on behalf of the tourism sector in Austria. Applying the Contingent Valuation Method (CVM), 4,600 tourists spending vacations in Austria in the summer of 1991 were asked about their willingness to pay for these services. The mean and median amounts recorded were 9.20 and 3.50 Austrian shillings (ATS) per person per day, respectively. However, these values varied according to the tourists' nationality. Even though the study reveals a considerable aggregate willingness to pay (WTP), the amount would probably not suffice to maintain farmers in mountainous regions. Various conclusions for agricultural policy can be drawn concerning direct compensation to farmers for the provision of non-market goods.

TI: Total Economic Values of Increasing Gray Whale Populations: Results from a Contingent Valuation Survey of Visitors and Households

AU: Loomis,-John-B.; Larson,-Douglas-M.

SO: Marine-Resource-Economics; 9(3), Fall 1994, pages 275-86.

AB: The consistency of an individual's willingness to pay (WTP) responses for increases in the quantity of an environmental public good (whale populations) is tested along three lines. First, we test whether WTP for 50 percent and 100 percent increases in whale populations are statistically different from zero. Second, we ask whether the incremental WTP from a 50 percent increase to a 100 percent increase is statistically significant. Finally, we test whether there is

diminishing marginal valuation of the second 50 percent increment in gray whale populations. The paired t-tests on open-ended WTP responses supported all three sets of hypotheses. Both visitors and households provided WTP responses that were statistically different from zero and increased (but in a diminishing fashion) for the second increment in WTP. In this survey both visitors and households provided estimates of total economic value (including non-use or existence values) for large changes in wildlife/fishery resources that were consistent with consumer theory.

TI: Willingness to Pay for Environmental Goods in Norway: A Contingent Valuation Study with Real Payment

AU: Seip,-Kalle; Strand,-Jon

SO: Environmental-and-Resource-Economics; 2(1), 1992, pages 91-106.

TI: Valuing the Benefits of the South Downs Environmentally Sensitive Area

AU: Garrod,-G.-D.; Willis,-K.-G.

SO: Journal-of-Agricultural-Economics; 46(2), May 1995, pages 160-73.

AB: Over the last few decades increasing concern has been voiced regarding the detrimental effect which many modern farming practices are thought to have on the countryside. Environmentally Sensitive Areas (ESA) Scheme is one response to this concern and seeks to support those agricultural practices which have contributed to the distinctive agricultural landscape, which for many people typifies the British countryside. This paper uses the contingent valuation method to estimate the benefits which the general public receives from the ESA scheme in the South Downs and sets them against the estimated net exchequer costs of the scheme. The study illustrates the importance of including passive use values in benefit-cost analysis, if environmental protection is to be provided in certain marginal areas.

TI: Willingness to Pay for Quality Improvements: Comparative Statics and Interpretation of Contingent Valuation Results

AU: Whitehead,-John-C.

SO: Land-Economics; 71(2), May 1995, pages 207-15.

AB: This paper extends variation function theory by examining the effects of changes in prices, quality, and income on willingness-to-pay for quality change. Comparative static effects are found for both on-site users and nonusers of the resource. These results are used to interpret contingent valuation empirical models. For example, the substitution and complementary relationships between trips to natural resource sites can be identified. This paper also suggests tests for comparison of contingent valuation with recreation demand models and other tests of validity.

TI: Groundwater Protection Benefits and Local Community Planning: Impact of Contingent Valuation Information

AU: Powell,-John-R.; Allee,-David-J.; McClintock,-Charles

SO: American-Journal-of-Agricultural-Economics; 76(5), December 1994, pages 1068-75.

TI: El metodo dicotomico de valoracion contingente: Una aplicacion a los espacios naturales en Gran Canaria. (With English summary.)

AU: Leon,-Carmelo-Javier

SO: Investigaciones-Economicas; 19(1), January 1995, pages 83-106.

AB: The objective of this paper is the estimation of the benefits from preserving the landscape of a group of natural areas placed in the western-centre of Gran Canaria. We use the dichotomous choice contingent valuation method. A telephone survey was carried out to a random sample of 573 individuals taken from the population of Gran Canaria. Several empirical models and welfare concepts which have been proposed in the literature are compared using this data set. The results with these data show that normalized truncated welfare measures are more efficient and reduce the empirical divergence which appears between single and double bounded welfare estimates. Using the best empirical model, the welfare estimate is of 3235 annual pesetas per adult individual, implying an aggregate value of 1644 million pesetas per annum.

TI: Contingent Valuation in Korean Environmental Planning: A Pilot Application to the Protection of Drinking Water Quality in Seoul  
AU: Kwak,-Seung-Jun; Russell,-Clifford-S.  
SO: Environmental-and-Resource-Economics; 4(5), October 1994, pages 511-26.

TI: Contingent Valuation and Social Choice  
AU: McFadden,-Daniel  
SO: American-Journal-of-Agricultural-Economics; 76(4), November 1994, pages 689-708.

AB: The contingent valuation method for estimating the existence value of natural resources is examined for psychophysical robustness, statistical reliability, and economic sensibility. Extensions of standard models for willingness-to-pay, and suitable econometric techniques for analyzing these models, are developed. The analysis is applied to a series of experiments on the value of preserving wilderness areas in the western United States. The results call into question the reliability of the contingent valuation method for estimating existence values.

TI: Valuing the Environment through Contingent Valuation  
AU: Hanemann,-W.-Michael  
SO: Journal-of-Economic-Perspectives; 8(4), Fall 1994, pages 19-43.

AB: Contingent valuation is now used around the world to value many types of public goods, including transportation, sanitation, health, and education, as well as the environment. The author describes how researchers go about making such surveys reliable, mentioning recent innovations in sampling, questionnaire design, and data analysis, including formulating the valuation as a closed-ended question about voting in a referendum to raise taxes for a particular purpose. He addresses various objections that contingent valuation results are incompatible with economic theory. Even without a market, there still exists a latent demand curve for nonmarket goods; contingent valuation represents a way to tease this out.

TI: Willingness to Pay for Gains and Losses in Visibility and Health  
AU: Loehman,-Edna-T.; Park,-Sehoon; Boldt,-David  
SO: Land-Economics; 70(4), November 1994, pages 478-98.

AB: Two different willingness-to-pay responses are compared--willingness to pay to avoid loss of air quality and willingness to pay to obtain gains in air quality. Contingent valuation data are used to estimate bid functions for these two types of responses for visibility and health. Comparison of the estimated models indicates that, in

addition to magnitude differences, gains and losses for visibility and health are affected differently by health status, risk perceptions, and other risk-related variables. Results for the loss measure are more reliable in terms of variability of response and econometric modeling.

TI: Valuing the Preservation of Australia's Kakadu Conservation Zone  
AU: Carson,-Richard-T.; Wilks,-Leanne; Imber,-David  
SO: Oxford-Economic-Papers; 46(0), Supplement Oct. 1994, pages 727-49.  
AB: The Australian Resource Assessment Commission conducted a large contingent valuation study to estimate the economic benefits of preserving the Kakadu Conservation Zone by incorporating it into Kakadu National Park rather than allowing mining in it. Different subsamples were presented, with scenarios representing the environmentalist (major) and mining industry (minor) views of the impacts. Willingness to pay to prevent the major impact scenario was twice as high as for the minor impact scenario. For both scenarios, benefit-cost analysis indicates that preservation should be chosen over mining. A valuation function to predict the willingness to pay responses is estimated.

TI: Estimating Revenue-Capture Potential Associated with Public Area Recreation  
AU: Teasley,-R.-Jeff; Bergstrom,-John-C.; Cordell,-H.-Ken  
SO: Journal-of-Agricultural-and-Resource-Economics; 19(1), July 1994, pages 89-101.  
AB: A traditional contingent valuation approach and the "trip response method" were examined as potential techniques for measuring public area recreation revenue-capture potential. Empirical results suggest that both methods are useful for assessing revenue-capture potential. Additional research on alternative methods for assessing recreation revenue-capture potential is encouraged.

TI: Valuing Damage to Historic Buildings Using a Contingent Market: A Case Study of Road Traffic Externalities  
AU: Grosclaude,-Pascal; Soguel,-Nils-C.  
SO: Journal-of-Environmental-Planning-and-Management; 37(3), 1994, pages 279-87.  
AB: Pricing of road transport at social marginal cost should make users aware of the cost of damaging the environment (external costs). such an approach, however, requires a monetary estimate of this damage which can be difficult to derive. On the basis of a study carried out at Neuchatel (Switzerland), the contingent valuation method was used to estimate the damage caused to buildings of historical and cultural value by traffic-caused air pollution. In a survey, individuals were asked to contribute to a fund set up to finance the maintenance of pre-selected historic buildings. A valuation function to predict willingness-to-pay responses is estimated.

TI: The Contingent Valuation of Forest Characteristics: Two Experiments  
AU: Hanley,-Nick-D.; Ruffell,-R.-J.  
SO: Journal-of-Agricultural-Economics; 44(2), May 1993, pages 218-29.  
AB: Most of the work on valuing the recreational benefits of public forests has concentrated on estimating consumers' surplus per visit. We use two contingent valuation approaches to try to place a value on the physical characteristics of British forests, and hence to explain the variation in consumers' surplus across different forest types. Our two approaches are, first, to obtain incremental willingness-to-pay to

access forests with different levels of a number of characteristics by showing visitors pairs of photographs; and second, to use characteristic levels as explanatory variables in a bid curve. We find that forest characteristics are in general poor predictors of willingness to pay.

TI: Some Empirical Evidence on Embedding Effects in Contingent Valuation of Forest Protection

AU: Loomis, -John-B.; Lockwood, -Michael; DeLacy, -Terry

SO: Journal-of-Environmental-Economics-and-Management; 25(1), Part 1 July 1993, pages 45-55.

AB: We test for an embedding effect on a geographically distributed public good and the extent to which improvements in the CVM design reduce the occurrence and magnitude of embedding effects in valuation. Using both open-ended and dichotomous choice CVM for protection of forests in all of southeastern Australia and two smaller portions of that area, we find the occurrence of embedding effects in only one of the two levels. When embedding effects were present, there was a reduction in value much smaller than that found by Kahneman and Knetsch. (c) 1993 Academic Press, Inc.

TI: Valuation of Environmental Risk Reduction: An Empirical Study in Taiwan. (In Chinese. With English summary.)

AU: Liu, -Jin-Tan

SO: Academia-Economic-Papers; 20(2), Pt. 2 September 1992, pages 679-95.

AB: This paper uses the "closed-ended" contingent valuation method to analyze the benefits of reductions in environmental risks in Taiwan. The environmental risks are the nuclear power plant risk and the air pollution risk from automobiles and motorcycles. The data employed in this study were derived from a survey that included both the risk perception and the contingent valuation questions. The welfare estimates based on the logit model and linear utility function indicate that a 20 percent reduction in nuclear power risk results in a benefit of NT\$830 per month, and a 20 percent reduction in car emission risk has a welfare benefit of NT\$597 per month.

TI: Contingent Valuation for Household Water in Rural Ghana

AU: Boadu, -Fred-O.

SO: Journal-of-Agricultural-Economics; 43(3), September 1992, pages 458-65.

AB: This study uses an iterative bidding approach to examine the relationship between selected socioeconomic characteristics of households and their willingness to pay for water. The study uses survey data from selected villages in Ghana. The results show that household income is the principal factor influencing the willingness to pay for water. There was a statistically significant positive relationship between households' history of water-related illness and their willingness to pay for water. The effect of most of the other socioeconomic factors in the study did not follow any consistent pattern and broad generalizations are not possible.

TI: Giving Respondents Time to Think in Contingent Valuation Studies: A Developing Country Application

AU: Whittington, -Dale et-al.

SO: Journal-of-Environmental-Economics-and-Management; 22(3), May 1992, pages 205-25.

AB: This paper evaluates whether the time given people to think about their responses to contingent valuation method (CVM) valuation questions influences their answers. The authors' study was conducted in Nigeria as part of an evaluation of rural households' willingness to pay for public taps and private connections to improved drinking water systems. Respondents who were allowed time to evaluate the proposed water system bid significantly less than those who did not have that time. Moreover, this conclusion was upheld regardless of whether the water system was a public tap or a private connection. Coauthors are V. Kerry Smith, Apia Okorafor, Augustine Okore, Jin Long Liu, and Alexander McPhail. (c) 1992 Academic Press, Inc.

TI: Estimating the Benefits of Water Quality Improvements in the Upper Narragansett Bay

AU: Hayes, -Karen-M.; Tyrrell, -Timothy-J.; Anderson, -Glen

SO: Marine-Resource-Economics; 7(1), Spring 1992, pages 75-85.

AB: An EPA-sponsored study of the benefits to Rhode Island residents of the water quality improvement in the Upper Narragansett Bay showed that the estimated annual costs (\$2.9 million) exceeded the expected annual benefits (\$2.0 million). That analysis evaluated only user benefits which were measured via expenditures; nonuser (intrinsic) benefits were not included. This study estimated the benefits to Rhode Island residents using the "Contingent Valuation" approach and responses from 435 residents to a 1985 survey about swimming and shellfishing. Aggregate annual benefits were estimated to be in the range of \$30-60 million for "swimmable" and \$30-70 million for "shellfishable" water quality, depending on the type of measure (mean or median) and survey format. Secondary objectives of the study were to test different versions of "willingness to pay" questions and compare mean and median values for measurement. Aside from payment vehicle bias, the authors found no evidence of serious bias.

TI: L'evaluation contingente des actifs naturels. Un exemple d'application. (Contingent Valuation of Natural Assets: A Case Study. With English summary.)

AU: Desaignes, -Brigitte; Lesgards, -Valerie

SO: Revue-d'Economique-Politique; 102(1), Jan.-Feb. 1992, pages 99-122.

TI: Interval Estimates of Non-market Resource Values from Referendum Contingent Valuation Surveys

AU: Cameron, -Trudy-Ann

SO: Land-Economics; 67(4), November 1991, pages 413-21.

AB: Referendum (discrete choice) questions are now familiar in surveys designed to elicit the nonmarket value of access to environmental resources and public goods. Respondents are asked only to indicate whether they value their access by more or less than an offered "bid" amount. Most previous research using these data has been able to provide only point estimates of nonmarket values or, at best, confidence intervals based on simulations. This paper develops the analytical variance-covariance matrix for a censored regression model appropriate for these data that allows simple computation of confidence intervals for the estimated valuations.

TI: Valuation of Pollution Abatement Benefits: Direct and Indirect Measurement

AU: Shechter, -M.; Kim, -M.

SO: Journal-of-Urban-Economics; 30(2), September 1991, pages 133-51.  
AB: This paper deals with the valuation of benefits, especially morbidity reduction, associated with air pollution abatement. Two approaches are employed. These are direct, contingent valuation, as gauged by willingness to pay, and indirect valuation through the effect of changes in the provision of a public good (clean air) upon the demand for two market goods, housing and medical services. Both empirical analyses are based on the same set of individuals from a sample survey of households in the city of Haifa in Israel. This strategy enables the derivation of comparable individual valuations. The paper then proceeds to compare and evaluate the estimates of welfare changes obtained under these two distinct approaches.

TI: Valuing Non-market Goods Using Contingent Valuation

AU: Hanley, -N.-D.

SO: Journal-of-Economic-Surveys; 3(3), 1989, pages 235-52.

AB: Contingent valuation is a technique being developed by economists for the valuation of environmental commodities not traded in markets. This paper discusses the major problem areas associated with this method of value estimation. These comprise bias (strategic, hypothetical and design biases); the aggregations procedure; the choice of question format; and non-use values. Some evidence from comparative studies is reported, and comments made on the accuracy of contingent valuation answers. Finally, the conditions under which contingent valuation seems to operate best are set out.

TI: Valuing Rural Recreation Benefits: An Empirical Comparison of Two Approaches

AU: Hanley, -N.-D.

SO: Journal-of-Agricultural-Economics; 40(3), September 1989, pages 361-74.

AB: Two methodologies for valuing non-market benefits (contingent valuation and the travel cost method) are briefly described. Both are then applied to the problem of valuing non-market recreation benefits derived by visitors to a part of the Queen Elizabeth Forest Park in Central Scotland. Results, in terms of consumer surplus estimates, are presented for each method, and problem areas found in applying the two methodologies are pointed out.

TI: Valuing Non-market Recreation Goods: An Evaluative Survey of the Literature on the Travel Cost and Contingent Valuation Methods

AU: Durden, -Garey; Shogren, -Jason-F.

SO: Review-of-Regional-Studies; 18(3), Fall 1988, pages 1-15.

TI: Estimating Residential Price Elasticity of Demand for Water: A Contingent Valuation Approach

AU: Thomas, -John-F.; Syme, -Geoffrey-J.

SO: Water-Resources-Research; 24(11), November 1988, pages 1847-57.

TI: Using Contingent Valuation to Value Environmental Improvements

AU: Hanley, -Nicholas

SO: Applied-Economics; 20(4), April 1988, pages 541-49.

TI: Option Price Estimates for Water Quality Improvements: A Contingent Valuation Study for the Monongahela River

AU: Desvousges, -William-H.; Smith, -V.-Kerry; Fisher, -Ann  
SO: Journal-of-Environmental-Economics-and-Management; 14(3),  
September 1987, pages 248-67.

TI: Efficient Estimation Methods for "Closed-ended" Contingent  
Valuation Surveys

AU: Cameron, -Trudy-Ann; James, -Michelle-D.  
SO: Review-of-Economics-and-Statistics; 69(2), May 1987, pages 269-76.  
AB: "Closed-ended contingent valuation" surveys can be very useful in  
the evaluation of nonmarket resources. Respondents merely state  
whether they would accept or reject a hypothetical threshold amount,  
either as payment for giving up access to the resource or as a fee for  
its use. The authors develop a maximum likelihood procedure which  
exploits the variation in the threshold values to allow direct and  
separate point estimates of regression-like slope coefficients and  
error standard deviations (without truncation bias). Their illustration  
uses data from a survey of recreational fisherman to examine factors  
which influence individuals' willingness-to-pay.

TI: Valuing Changes in Health Risks: A Comparison of Alternative  
Measures

AU: Berger, -Mark-C. et-al.  
SO: Southern-Economic-Journal; 53(4), April 1987, pages 967-84.  
AB: Willingness-to-pay measures for human health risk reduction are  
compared with alternative measures using a model, which incorporates  
uncertainty, endogenous health, mortality, and morbidity. It is shown  
that expected private costs of illness and preventive expenditures are  
not special cases of willingness to pay. However, for pure morbidity,  
under plausible conditions these alternative measures are lower bounds  
on willingness to pay. Results from a contingent valuation survey for  
the avoidance of seven light symptoms show that deterministic consumer  
surplus exceeds actual private costs of illness and imply that  
willingness to pay is greater than expected private costs of illness.  
Coauthors are Glenn C. Blomquist, Don Kenkel, and George S. Tolley.

TI: Contingent Valuation of Environmental Assets: Comparisons with a  
Simulated Market

AU: Bishop, -Richard-C.; Heberlein, -Thomas-A.; Kealy, -Mary-Jo  
SO: Natural-Resources-Journal; 23(3), July 1983, pages 619-33.

TI: Contingent Valuation Surveys for Evaluating Environmental Assets

AU: Randall, -Alan; Hoehn, -John-P.; Brookshire, -David-S.  
SO: Natural-Resources-Journal; 23(3), July 1983, pages 635-48.

TI: Contingent Valuation Techniques for Assessing Environmental  
Impacts: Further Evidence

AU: Thayer, -Mark-A.  
SO: Journal-of-Environmental-Economics-and-Management; 8(1), March  
1981, pages 27-44.

TI: The Advantages of Contingent Valuation Methods for Benefit-Cost  
Analysis

AU: Brookshire, -David-S.; Crocker, -Thomas-D.  
SO: Public-Choice; 36(2), 1981, pages 235-52.