

NOTAS ECONÓMICAS 40

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BEHAVIOUR: THE BEST OF BOTH WORLDS?

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PARTICIPAÇÃO EM SAÚDE: CONCEITOS E CONTEÚDOS

DOUTORAMENTO HONORIS CAUSA DO DR. ANTÓNIO ARNAUT

REVISTA DA FACULDADE DE ECONOMIA DA UNIVERSIDADE DE COIMBRA

http://dx.doi.org/10.14195/2183-203X_40_1

Combining Observed and Contingent Travel Behaviour: The Best of Both Worlds?

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resumo

abstract / résumé

Os recursos naturais oferecem uma ampla gama de benefícios para a sociedade. Mas muitos destes recursos podem ser irremediavelmente perdidos. Considerando que os esforços de proteção ambiental envolvem custos de oportunidade, a avaliação económica é essencial para permitir aos decisores conhecer os benefícios líquidos das suas decisões, principalmente no caso de benefícios não incorporados nos preços de mercado.

A literatura sobre a avaliação ambiental tem permitido desenvolvimentos significativos. Incidindo sobre os métodos utilizados para avaliar os benefícios relacionados com o uso recreativo de áreas naturais, este trabalho explora o potencial de combinar abordagens com base em preferências reveladas e declaradas. Conclui-se que esta opção impõe esforços adicionais que no entanto serão compensados pela possibilidade de tirar proveito do melhor destes dois mundos.

JEL Classification: Q26; Q51.

Natural resources offer a wide range of benefits to society. But many of these resources can be irrevocably lost if active measures are not adopted. Considering that environmental protection endeavours involve opportunity costs, economic valuation is essential to inform policymakers about the full net benefits of alternative measures, mainly if they are not properly reflected in market prices.

The literature on environmental valuation has been proliferating and significant developments have been achieved. Focusing on the methods used to evaluate the benefits related to the recreational use of natural areas, this paper explores the potential complementarity of approaches based on combined revealed and stated preferences techniques. We conclude that putting together the best of these both worlds imposes additional efforts that are worthwhile.

Les ressources naturelles offrent une vaste gamme d'avantages pour la société. Mais beaucoup de ces ressources peuvent être perdus si des mesures actives ne sont pas adoptées. Considérant que la protection de l'environnement entraîne des coûts d'opportunité, l'évaluation économique est essentielle pour informer les décideurs sur les avantages nets de stratégies alternatives, surtout s'ils ne sont pas correctement reflétés dans les prix du marché.

La littérature sur l'évaluation environnementale a été prolifère et développements significatifs ont été atteints. Mettre l'accent sur les méthodes utilisées pour évaluer les avantages liés à l'utilisation récréative des espaces naturels, cet article explore la complémentarité des approches fondées sur techniques de préférences révélées et énoncées. Nous concluons que rassembler le meilleur de ces deux mondes impose des efforts supplémentaires qui valent la peine.





1. Introduction

Natural areas and environmental resources in general provide a wide diversity of goods and services that are valuable for society. As such, efficient management is strictly necessary and requires benefits to be weighed against costs. However, the public or semi-public condition of these spaces precludes the existence of established markets ensuring an efficient allocation. Public authorities managing these areas are likely to be acquainted with current maintenance costs, but benefits must be estimated indirectly. This estimation is complex because a wide range of benefits is always involved. Present and future outdoor recreation opportunities are among these benefits and are related to multiple activities. They range from the more passive ones such as sitting and relaxing, enjoying the landscape or watching the fauna (e.g., whales or birds), to more active options such as walking, skiing, mountain biking or climbing.

Demand for outdoor recreation in developed countries has been rising and projections point towards this increase continuing. Consequently, growing demand pressure is expected for natural areas. However, knowledge on outdoor recreation remains scant. Very often there is incomplete data about the level of demand. There is also lack of information about visitors' socio-demographic characteristics, their preferences with respect to features of the natural resource and the motivation and characteristics of their visits. Reactions of visitors to changes in current conditions and/or in access prices are also unknown.

In recent decades, researchers have been working hard in order to fill this gap. Researchers aim to produce reliable and structured information on demand, and consequently on the value attached by society. Their ultimate purpose is to support natural areas management. A number of empirical studies have been devoted to the estimation of values associated with the use and non-use of natural resources. Analysis has relied on non-market valuation techniques in a permanent attempt to improve knowledge on demand and welfare.

Non-market valuation techniques are usually structured in two main groups: revealed preferences and stated preferences. In recent years, researchers have been recognizing the advantages of combining the use of techniques from both groups. This article summarises the state of this debate and highlights some critical issues, focusing on the methods used to evaluate the benefits related to the recreational use of natural areas.

The analysis is organised as follows. The conceptual and methodological framework underlying non-market valuation is presented in Section 2. Sections 3 and 4 outline the state of the art and the critical issues concerning the most widely used stated preferences (contingent methods and choice modelling) and revealed preferences (travel cost) techniques. Section 5 explores an oriented literature review of the joint application of contingent methods and travel cost methods, in the context of outdoor nature-based recreation. Section 6 concludes.

2. Economic values and non-market valuation techniques

The values of environmental services are not usually directly revealed in market transactions mainly because many of them are non-tradable. Accordingly, non-market valuation techniques must be considered to better assess their true economic value and to promote efficiency. A major difficulty in non-market valuation concerns the concept of value itself, which is neither unique nor trouble-free. The study of environmental goods/services involves a wide diversity of aspects adding even more complexity to the concept. So we start this analysis by discussing the concept of total economic value (TEV) of natural resources and suggesting a specific structuring of their multiple dimensions (Section 2.1). The relation between the different dimensions of TEV and non-market valuation techniques is also examined. In Section 2.2, we discuss the possibility and accuracy of using monetary units to evaluate environmental resources. The relation between the components of TEV and the non-market valuation techniques is considered in Section 2.3.