

Preface

A Nested Logit Model of Recreational Fishing Demand in Alaska

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The lead article in this issue of *Marine Resource Economics* by Richard Carson, Michael Hanemann, and Thomas Wegge is well known to many environmental and natural resource economists. It was originally presented at the Western Economic Association Meetings in Lake Tahoe, Nevada in 1989 and is a shortened version of their 1987 report to the Alaska Department of Fish and Game. It was one of the first applications of the random utility maximization (RUM) model to recreation demand and one of the earliest examples of integrated bio-economic modeling used for actual policy purposes. The research was never published, but it was pivotal in launching the application of RUM models to recreation demand along with Bockstael, Hanemann, and Strand's (1984) University of Maryland report to the US Environmental Protection Agency. Given its importance, we thought it would be useful to make it more easily accessible and to recognize its contribution. When we invited the authors to submit the article, they expressed enthusiasm, so we proceeded.

We decided to publish the article in its original form with the exception of minor editorial changes. We asked Richard, Michael, and Thomas to write a foreword to the paper that would give readers historical context and include some discussion of the issues they confronted in designing and estimating the model. We also asked Kerry Smith and Ted McConnell to review the foreword, adding the perspective of two practitioners who were actively working on similar research at the time. Their comments have been incorporated in the foreword, and we thank them for their input. We also asked Richard to make the more comprehensive report, survey, and data available. These can now be found at <http://www.econ.ucsd.edu/~rcarson/> under "Alaska Fishing Data/Report." The survey is included in the report.

Random utility maximization models changed the landscape of nonmarket valuation in the 1980s for both revealed and stated preference analyses. The impact was striking on recreation demand modeling. The profession moved from largely single-site continuous demand models set in a seasonal timeframe and estimated using least squares, to random utility models of many sites (hundreds or more) set in a single choice occasion and estimated using discrete choice econometrics. At the time, analysts were grappling with ways to account for substitute sites and conduct welfare analysis for quality changes at one or more sites in plausible and theoretically acceptable models. Inroads were made

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with varying parameter models, systems of demand equations, pooled single-site models, and hedonic travel cost models. While each of these had some appeal and still see use in some modern applications, for all practical purposes when the RUM model was introduced and successfully applied, it pushed most other modeling approaches aside. It told a realistic story, allowed for many sites, and easily accommodated welfare analysis for quality changes and site closures for a single or many sites. As the econometrics of discrete choice analysis advanced in other areas of applied microeconomics and computing power grew (including software packages to accommodate estimation), the transition to RUM-based modeling was in full swing.

Carson, Hanemann, and Wegge's research was an instrumental part of this transition, leading the way in many respects, and foreshadowing many of the problems that we still wrestle with today. Although more than two decades have passed since the research was completed, it is still an enlightening read—not only for its historical importance to recreation demand modeling but also for insights it may have for contemporary analysis.