



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Book review

Applied Choice Analysis, 2nd edn, by David A Hensher, John M Rose and William H Greene. Published by Cambridge University Press, Cambridge, UK, 2015, pp. 1188, ISBN: 9781107092648 (Hardback), 9781107465923 (Paperback), AUD\$155 (Paperback)

As a newcomer to the world of choice modelling, I sometimes get lost in the complicated world between economic choice theory, econometrics and statistics. *Applied Choice Analysis Second Edition* is a light to help you find your way. Though the reading itself is certainly not ‘light’, it is a substantially sized reference book that accidentally ended up as an epic stand for my computer screen. However, it was quickly upgraded to prime position as a key reference because it provides a clear and comprehensive coverage of the theory and econometrics of choice modelling. This book is of interest both to the novice choice modeller and to the more experienced practitioner. The authors are prominent choice analysts and have developed this reference book while teaching graduate courses – and it shows. They explain all things choice modelling, without unnecessary technical language or jargon.

This second edition was written in response to feedback on their first edition *Applied Choice Analysis A primer* and includes advances made since writing the first edition in 2004. The authors added numerous new sections, including generalised mixed logit, latent class analysis and a whole new chapter on more advanced topics. I notice that this *Second Edition* has a more relaxed conversational writing style (which is impressive given the technical nature of the content) and uses more examples to demonstrate theory and techniques. I also prefer the new formatting to increase readability and I particularly appreciate the overhanging chapter titles that makes finding sections easier.

The book is generally structured by first introducing the relevant theory and concepts followed by using Nlogit as the software to demonstrate applications of the theory.

The book is presented in three parts. Part I ‘Getting started’ covers topics in choice and utility, types and estimation of discrete choice models, experimental design and statistical inference. This first part provides 384 pages of choice modelling theory for your enjoyment, providing extensive background reading for any beginner or essential reference material for experienced practitioners. Towards the end of this section, there is an historical overview of the evolution of experimental design theory which more experienced users may find interesting.

The next shorter section, Part II ‘Software and data’, moves into the more technical side of data analysis using the software Nlogit. This section

introduces Nlogit and the software language and details the data set-up requirements for analysing discrete choice data sets in Nlogit.

Part III 'The suite of choice models' is described by the authors as a 'journey', beginning with the multinomial logit model (the 'workhorse' of the choice modeller) through to more complex model specifications, such as nested, mixed and latent class logit models. This third part may be challenging for the novice reader, but essential material if you want to learn about the variety in choice models that is (or has been) used in the literature.

The final Part IV 'Advanced Topics' is a new section that highlights some of the recent advancements to choice modelling, covering nonlinearity in parameter estimates, process heuristics and group decision-making. If you were lost in Part III, then you may need rescuing now. However, this is an interesting and important additional chapter as it begins to detail the frontiers of choice modelling and will be particularly useful for more advanced researchers and practitioners.

The authors claim that this book is usable for the beginner, as I consider myself to be. Evidently, the authors assume you might be a beginner to choice modelling and not to econometrics or statistics, as for this second edition they have removed the introductory chapter on the *Basic notions of statistics*. This may not be a problem for most users who will have some background. Furthermore, the authors make every effort to bring you along regardless of your level by explaining concepts from the beginning, using examples and clear accessible language.

While extremely useful for most choice modellers, the close integration with Nlogit software language and examples may provide some frustrations for practitioners who prefer different software. For example, preparing raw choice data for analysis can be a serious source of confusion. This book provides specific guidance for setting up data for use in Nlogit, which may be incomplete for researchers who are using other software. Despite the fact that I use different software, I find myself referring to this key reference book regularly on all topics from utility theory to complex model specifications, and I should probably refer to it more often.

Finally, on the days when I cannot face any equations, I still find this text surprisingly readable and useful. I recommend this book to anyone, either beginning their choice modelling journey or looking to deepen their knowledge.

ALAYA SPENCER-COTTON

School of Agricultural and Resource Economics, University of Western
Australia, Crawley, Western Australia
Email: alaya.spencer-cotton@uwa.edu.au