

BOOK REVIEW/COMPTE RENDU

Roger Tarling, *Statistical Modelling for Social Researchers: Principles and Practices*. Series: Social Research Today. New York: Routledge, 2008, 224 pp. \$US 57.95 (978-0-415-44840-6), \$US 150.00 hardcover (978-0-7890-3788-6)

Part of a series edited by Martin Bulmer entitled *Social Research Today, Statistical Modelling for Social Researchers: Principles and Practices* is a fairly comprehensive look at the wide range of statistical techniques that fall beneath the rubric of “regression.” Tarling draws upon his extensive applied research experience to provide students of regression with a gentle introduction to the topic.

Chapter 1 begins with an overview of statistical modeling, delving into basic questions such as what modelling is, why we would want to model, and how we can discern between competing models. Chapter 2 continues the introduction by reviewing basic concepts like units of analysis, survey design, levels of measurement, as well as some not-so-commonly discussed items like missing data and the difference between longitudinal and cross-sectional data structures. Chapter 3 covers basic statistics and mathematics, and provides a good reminder to even the most seasoned experts.

It is in chapter 4 that Tarling begins to discuss statistical modeling itself. He starts with ordinary least squares regression, an obvious and sensible place to begin any discussion of modeling. I particularly appreciated the level of detail that Tarling uses to discuss interactions, since this is one of the areas where new learners often get themselves into trouble.

In subsequent chapters, Tarling discusses increasingly complex modeling techniques, ranging from logistic regression in Chapter 5 to event history analysis in Chapter 13. In between, he devotes a chapter to multinomial logistic (Chapter 6), loglinear (Chapter 7), ordinal logistic (Chapter 8), multilevel (Chapter 9), latent variable/factor analysis (Chapter 10), and simultaneous equation models (Chapter 11). He also discusses some of the necessary considerations for longitudinal analysis (Chapter 12), before discussing event history analysis in the final chapter.

Each chapter provides a succinct and jargon-free overview of a technique, and provides tips and advice from someone who is clearly an ex-

perienced practitioner. To avoid confusion, Tarling does not spend much time with the underlying statistics associated with each technique.

The chapters are brief, but I think that Tarling did this intentionally, because he does not want to saturate his audience with endless details. He is instead providing the basics of each technique so that readers can decide for themselves if a modelling technique is appropriate for the analysis that they'd like to do. At the end of each chapter he provides the citations of additional readings for those who want to learn more.

One of the things that I liked most about the book was that Tarling shows readers, with screenshots, how to estimate each of the models in both SPSS and Stata, two of the more commonly-used statistical software packages. A reader would need to only buy this book and be able to estimate basic versions of each of the modeling techniques that Tarling discusses. The modular format makes it possible to read only the sections that are necessary for employing a particular type of model, rather than having to wade through the entire text.

One oddity is that Tarling switches to MLWin in his discussion of multilevel modeling in Chapter 9. He justifies this by stating that it is his preference to do so. He also notes that Stata requires a user-written add-on to estimate multilevel models, and that there are limitations in SPSS's routine. I found this to be unfortunate, as Stata has since version 9 contained built-in (and user-written) modules for estimating multilevel models (such as the "xtmixed" command), and SPSS's newer versions are vast improvements over their earlier attempts. For consistency, I would have preferred to see him show users how to estimate multilevel models in Stata and SPSS, even though these programs may not be as sophisticated or comprehensive as MLWin.

That aside, Tarling provides a masterful overview of several of the key statistical techniques currently used by Sociologists and other social scientists. He provides practical advice on how to build statistical models without employing too much jargon. This makes the book a relatively easy and enjoyable read (at least as much as can be expected for a statistics book). The book also mentions that there is an accompanying website, although I was unable to find one on the Routledge website.

The absence of statistical theory throughout leads me to believe that the text would probably be more useful as an accompanying, rather than primary, text for a statistics course. It does not contain the necessary detail to stand alone, but that does not appear to be Tarling's intent. He instead wishes to help readers "gain a feel" for the subject of statistical modelling and to encourage them to seek additional resources on the techniques that interest them. I believe that, given the accessible manner

in which Tarling has written *Statistical Modelling for Social Researchers*, he should be able to achieve his objective.

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