

## REFERENCES

- Rao, C. R., Miller, J. P., and Rao, D. C. (eds.) (2008). *Handbook of Statistics 27: Epidemiology and Medical Statistics*, New York: Elsevier.
- Stasinopoulos, D. M., and Rigby, R. A. (2007). "Generalized Additive Models for Location Scale and Shape (GAMLSS) in R," *Journal of Statistical Software*, 23 (7), 1-46.
- Fisher, L. D., and Van Belle, G. (1993), *Biostatistics: A Methodology for the Health Sciences*, New York: Wiley.

### IBM SPSS Statistics 19 Made Simple.

Colin D. GRAY and Paul R. KINNEAR. New York: Psychology Press, 2012, xiv + 671 pp., \$34.95 (P), ISBN: 978-1-848-72069-5.

*IBM SPSS Statistics 19 Made Simple* is a book that presents step-by-step implementations of a number of statistical techniques. No prior knowledge of SPSS is needed. The book begins with an introduction to SPSS, shares data-handling features of the software, and provides some guidance on the choice of statistical models. Throughout the book, annotated screen shots of SPSS dialog boxes and output of each model help the reader to easily follow the process.

In this new edition, more emphasis is placed on file merging and aggregation, and chart editing. Exercises from previous editions of the book are available at the book's website <http://www.psypress.com/spss-made-simple>. The exercises contain chapter-specific problems and more challenging problems that "can often be approached with techniques described in more than one chapter" and require the reader to identify the appropriate analysis. Datasets used in the book can also be downloaded from the website. Instructors have access to PowerPoint, multiple-choice questions, and some notes on some of the terms in SPSS.

In addition to interfacing with SPSS through Windows menus and submenus, the book also demonstrates the use of command language (syntax) to implement statistical models. Although the latter approach is a bit more challenging and requires a deeper knowledge of SPSS syntax, it is more general in the sense that some functions provided in SPSS can only be implemented in command language. The copy-paste utility helps the user to copy and paste a command and save it in a file for later use. Furthermore, in case the user needs to repeatedly perform a task, four looping structures are presented in an appendix to the book.

A new chapter on the analysis of covariance (ANCOVA) is added to the book (Chapter 13). The rationale behind ANCOVA is demonstrated visually. The presentation of ANCOVA is limited to one covariate, and for two or more covariates, the reader is referred to more advanced sources on the topic.

Although this book is not a typical standard statistical textbook, it covers a great deal about SPSS and could be used as a complementary resource to a standard textbook in statistics. It is a thorough reference for researchers using SPSS. The book gives the reader a good working knowledge of SPSS, some guidance on the use of statistical techniques, and helpful interpretation of SPSS outputs. The reader needs to have some familiarity with introductory probability and statistical topics. In all, this is a great book for researchers who need to perform statistical techniques using SPSS.

Morteza MARZIARANI  
Saginaw Valley State University

### Interpreting Economic and Social Data: A Foundation of Descriptive Statistics.

Othmar W. WINKLER. Berlin: Springer-Verlag, 2009, xvi + 265 pp., \$119.00 (H), ISBN: 978-3-540-68720-7.

"Statisticians accept as a self evident principle that there is one general theory of statistics that applies equally to all fields . . . yet important applications in economics and the social sciences in general are not covered by what today is considered 'the theory of statistics'." So begins the first chapter of Othmar W. Winkler's book. This statement sums up his reason for writing the book, which is to explain the special nature of socioeconomic data and to present methods of analysis for socioeconomic data that are typically not seen in introductory

courses on statistical analysis. The text itself, however, is more geared toward a practicing statistician than toward a student statistician.

An overview of each chapter is provided online at <http://statlit.org/Winkler.htm>, along with several other reviews. Suffice it to say here that the text includes many topics that are not generally covered in "theory of statistics," such as the aggregated nature of socioeconomic data and the importance of ratios. Other topics covered include longitudinal analysis, price-index-numbers, asymmetrical distributions, and spatial distributions. These topics consume the bulk of Chapters 1-8. In Chapter 9, Dr. Winkler lays out an "irreverent" view of linear regression. In his view, the slope is not to be interpreted as a rate of change, but as a "static, cross-sectional element" confined to the space and time in which the data underlying the regression were collected. Chapter 10 is about the misunderstanding of probability and the misuse of statistical significance in the context of socioeconomic data. The book concludes with a discussion of the relationship between statistics and accounting (Chapter 11) and between statistics and geography (Chapter 12). Clearly, there is a wealth of information in this text that is not considered in a typical introductory statistics course in the social sciences. Furthermore, the author makes several valid arguments for the inclusion of such elements.

In terms of methods and background, the book is a worthwhile read. However, I have to say that I found reading the book exceptionally difficult. It was not a problem of esoteric concepts or confusing syntax. The problem was such statements as "... statisticians have turned to probability to look for answers and by doing so, have further put off the real task of interpreting the situations in society as they are reflected in the data" (p. 9) and "Obviously knowledge of the subject area is more valuable to interpret statistical aggregates than proficiency in probability calculus" (p. 44), as if probability calculus is all statisticians care about. These are two examples of the kinds of blanket statements that are not true of most statisticians. And then there is the following statement, found on page 186, "[publishers and authors of statistical textbooks for business, economics, and social sciences] all have contributed to reinforce the trend, over the last decades, of moving probability into an ever-more prominent position." Unless I am mistaken, one of the main recommendations of the GAISE report (American Statistical Association 2010) was that probability be removed from the syllabi of introductory statistics courses in favor of more real-life examples and hands-on analyses. Although the transition from probability-based to analysis-based statistical education is not complete, one cannot argue that traditionally trained statisticians care nothing about data context, and that we do not teach such important matters as the importance of understanding the data in its context, to the choice and interpretation of any resulting statistical analyses.

In short, I would say that *Interpreting Economic and Social Data* offers a provocative look at statistical methods that are often neglected in the analysis of socioeconomic data. And, if you are the type of person who can look past statements that categorize all traditionally trained statisticians as overly enamored with probability and unconcerned with data context, you will certainly find a thorough treatment of all aspects of socioeconomic statistics, from the definition of a "statistical counting unit" to the analysis of such units, in this text. If I were to choose it, it would be as a supplement to a statistical textbook for an upper-level course. Furthermore, I would choose it as a way to elicit discussion of fundamental topics that are often mentioned only briefly. Perhaps, for reasons given previously, the book would elicit more "argument" than "discussion."

Monnie MCGEE  
Southern Methodist University

## REFERENCE

American Statistical Association, (2010), "Guidelines for Assessment and Instruction in Statistics Education (GAISE)," available at <http://www.amstat.org/education/gaise>

Introduction to Statistical Data Analysis for the Life Sciences.

Claus Thorn EKSTROM and Helle SORENSEN. Boca Raton, FL: CRC Press, 2011, xi + 415 pp., \$69.95 (P), ISBN: 978-1-4398-2555-6.

The book *Introduction to Statistical Data Analysis for the Life Sciences* was written by the authors to provide a textbook that "emphasizes applications and