NEW BOOKS

Components of Variance. By D. R. Cox and P. J. Solomon, Chapman & Hall/CRC, 2003, x+169 pp.

This is volume 97 in the series Monographs on Statistics and Applied Probability. The authors have aimed to set out the essential principles of the subject, concentrating on formulation of models which are the basis for detailed analysis as well as on the statistical techniques themselves. A number of examples of realistic complexity are described at least in outline. The book is intended for a wide range of readers, some with no initial knowledge of the subject and others interested in very specific issues. Each chapter is preceded by a short preamble to guide the reader toward key passages and particular topics. Chapter headings: 1. Key models and concepts; 2. One-way balanced case; 3. More general balanced arrangements; 4. Unbalanced situations; 5. Nonnormal problems; 6. Model extensions and criticism. There is a bibliography of about 160 items.

Regression with Social Data: Modeling Continuous and Limited Response Variables. By Alfred DeMaris, Wiley-Interscience, 2004, xvii+534 pp., $94.95

This is a volume in the Wiley Series in Probability and Statistics. It is intended both as a reference for data analysts working primarily with social data and as a graduate-level text for students in the social and behavioral sciences. It is not intended to be one's first exposure to regression. It is assumed that the reader has had a thorough introduction to probability theory, statistical inference, and applied bivariate statistics, along with an introduction to correlation and regression. The book's emphasis is on the estimation, interpretation, and evaluation of theoretically driven models in the social sciences, with the focus on the substantive and statistical plausibility of models, the correct interpretation of model parameters, the global evaluation of model adequacy, and a variety of inferential procedures of interest to those working with social data. The author has avoided discussion of exploratory model-building techniques, such as stepwise regression, along with the extensive examination of model residuals. Maximum likelihood estimation is central to the models considered and thus considerable emphasis is placed on the expression for the likelihood function. Chapter headings: 1. Introduction to regression modeling; 2. Simple linear regression; 3. Introduction to multiple regression; 4. Multiple regression with categorical predictors: ANOVA and ANCOVA models; 5. Modeling nonlinearity; 6. Advanced issues in multiple regression; 7. Regression with a binary response; 8. Advanced topics in logistic regression; 9. Truncated and censored regression models; 10. Regression models for an event count; 11. Introduction to survival analysis; 12. Multistate, multiepisode, and interval-censored models in survival analysis.