Applied Missing Data Analysis in the Health Sciences. Statistics in Practice

Description: A modern and practical guide to the essential concepts and ideas for analyzing data with missing observations in the field of biostatistics

With an emphasis on hands-on applications, Applied Missing Data Analysis in the Health Sciences outlines the various modern statistical methods for the analysis of missing data. The authors acknowledge the limitations of established techniques and provide newly-developed methods with concrete applications in areas such as causal inference methods and the field of diagnostic medicine.

Organized by types of data, chapter coverage begins with an overall introduction to the existence and limitations of missing data and continues into traditional techniques for missing data inference, including likelihood-based, weighted GEE, multiple imputation, and Bayesian methods. The book's subsequently covers cross-sectional, longitudinal, hierarchical, survival data. In addition, Applied Missing Data Analysis in the Health Sciences features:

- Multiple data sets that can be replicated using the SAS®, Stata®, R, and WinBUGS software packages
- Numerous examples of case studies in the field of biostatistics to illustrate real-world scenarios and demonstrate applications of discussed methodologies
- Detailed appendices to guide readers through the use of the presented data in various software environments

Applied Missing Data Analysis in the Health Sciences is an excellent textbook for upper-undergraduate and graduate-level biostatistics courses as well as an ideal resource for health science researchers and applied statisticians.

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