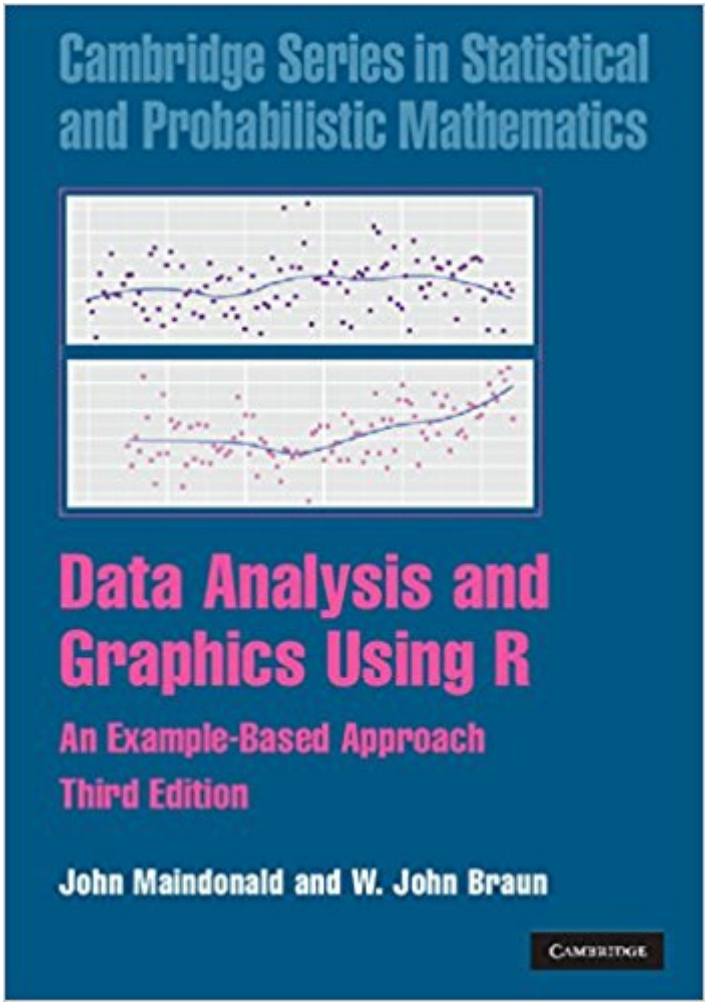
Data Analysis And Graphics Using R: An Example-Based Approach (Cambridge Series In Statistical And Probabilistic Mathematics)



Synopsis

Discover what you can do with R! Introducing the R system, covering standard regression methods, then tackling more advanced topics, this book guides users through the practical, powerful tools that the R system provides. The emphasis is on hands-on analysis, graphical display, and interpretation of data. The many worked examples, from real-world research, are accompanied by commentary on what is done and why. The companion website has code and datasets, allowing readers to reproduce all analyses, along with solutions to selected exercises and updates. Assuming basic statistical knowledge and some experience with data analysis (but not R), the book is ideal for research scientists, final-year undergraduate or graduate-level students of applied statistics, and practicing statisticians. It is both for learning and for reference. This third edition expands upon topics such as Bayesian inference for regression, errors in variables, generalized linear mixed models, and random forests.

Book Information

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Customer Reviews

"I would strongly recommend the book to scientists who have already had a regression or a linear models course and who wish to learn to use R. I give it a strong recommendation to the scientist or data analyst who wishes to an easy-to-read and an understandable reference on the use of R for practical data analysis." R News"The style of the book is a commendable "learn by example" - each of the many statistical techniques is centered on real-world examples. The collective of topics is

eclectic and the book also comes with extensive R code." Carl James Schwarz, Biometrics

This third edition of the popular guide to using R reflects recent improvements to the R system, including major advances in graphical user interfaces and graphics packages. It emphasizes hands-on analysis, graphical display and interpretation of data. Ideal for researchers, students of applied statistics, and practising statisticians.

I go back to this book again and again. I never had formal training in R or statistics. This one gives you an introduction to both. Enough depth so that you feel confident to use R and somewhat more advanced statistical analyses in everyday science work.

I got this book over Crawley's (The R Book) since the reviews said that this one was more organized than Crawley's.. however, even if that is true (maybe.. but Crawley's organization does not bother me), this book does not have half of what "The R Book" has, and their GLM chapter is a poor explanation of the function.I highly recommend purchasing Crawley's book over this one. This one is not horrible, but was not sufficient for me. Lucky for me I have online access to Crawley's book for free, which has saved me in some spots, along w/ the online R-help websites and list serves.This book definitely doesn't hurt to have though, but if you are looking to only buy one book, I would not rely solely on this one.

It seems that most introductory R books spend too much time with correlations and other modeling. I am still hoping to find an R book that deals primarily with data manipulation and descriptive graphics at an intro to intermediate level. Simply put, knowing something well and conveying it properly to your audience are often mutually exclusive.

This book is very useful for wrtiting R code. I suggest it to anyone who wants to learn R or anyone going into statistics.

The authors have written a very good and somewhat unique book on statistical data analysis. The emphasis is on linear models. graphics and diagnostics for identifying violations of modeling assumprions. They build up from the basics starting with simple one variable linear regression and correlation and then moving to multiple regression. Special cases of linear models suchas polynomial regression are presened. They then move on to various generalizations. When the

residuals are correlated they consider time series models for the correlation structure of the residuals. Other specialized and important problems such as repeated measures for longitudinal data are covered.Logistic regression is also introduced and shown to be a member of a larger class of models called generalized linear models which differ from linear models in that the dependent variable is a transformation of the basic dependent variable. The transformation is called the link function. For logistic regression the transformation is called the logit function. Hierarchical (or multi-level)models are also considered.There is also a chapter on classification and regression trees. The final methods chapter covers multvariate analysis including classifcation, principal components,and propensity scores. These are topics not commonly seen in a first course on regression or data analysis.What makes the book unique is a thorough introduction to the R programming language and the presntation of every technique with examples in R that both motivate the need for the technique and the details of the implementation in R. There is a lot of R code given and references to a variety of sources for R that can be found on the internet. The book can serve both as an introduction to data analysis and a tutorial on the R programming language. This can be useful as a text for undergraduate and graduate students. It is also an excellent reference for researchers who want to use R and its application to practical problems. The book also has an appendix that shows the relationship between R and S and SPlus, highlighting the differences. The first chapter is a careful introduction to R and the last chapter covers advanced applications in R.The graphics used throughout the book are excellently presented and there are even a few color graphs. This text has just had a second edition published but my review is based on the 2003 version which is the one I purchased.

I found this book to be quite useful for learning R, and for pointing out the pitfalls for new users. It’s especially good to know that there is a website associated with the book that will allow you to download the code used in the book.There are several good free R resources out there, but in the end I think you get what you pay for. In this case it was nice to have a hard-bound reference with an index and appendix that I could highlight and dog-ear.I mostly used it as a book for learning R, and not as a stats book. I did notice that there were many good examples of common statistical applications, such as t-stat tests, residual plotting, and the like. In other words, I feel like I got my money’s worth by just using a few chapters and the appendix.

I am using this book as my main resource to learn R from scratch. I had no prior experience with the program. The text is easy to read, and gives you just enough statistical theory to understand the

operations without weighing you down with overly-difficult concepts. Many useful 'references for further reading' are scattered throughout if you want to know more about any particular method or operation. The book has an accompanying website with examples of code used for all the figures in the book, solutions to selected exercises, and other helpful things. Advanced topics/sections are marked with an asterisk, indicating that a first-time reader may skip over them until a later date. Overall, the book is very explicit about the code used for all the examples, allowing for easy adaptation to the users' purposes. The exercises at the end of every chapter can be quite challenging, as they often build on concepts presented in the chapter rather than simply reviewing the material. The index is very good (there is one for terms and one for R symbols and functions). Overall, the book is pretty user-friendly for a novice like me, and it covers a broad range of methods of data analysis.

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