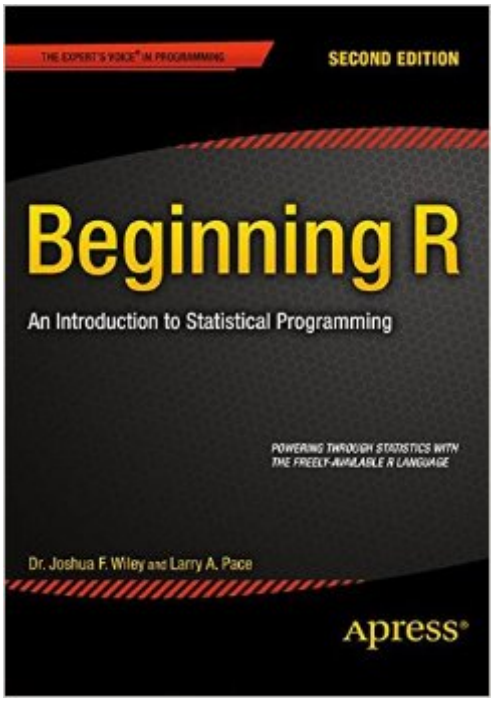
# Beginning R: An Introduction To Statistical Programming



## Synopsis

Beginning R, Second Edition is a hands-on book showing how to use the R language, write and save R scripts, read in data files, and write custom statistical functions as well as use built in functions. This book shows the use of R in specific cases such as one-way ANOVA analysis, linear and logistic regression, data visualization, parallel processing, bootstrapping, and more. It takes a hands-on, example-based approach incorporating best practices with clear explanations of the statistics being done. It has been completely re-written since the first edition to make use of the latest packages and features in R version 3. R is a powerful open-source language and programming environment for statistics and has become the de facto standard for doing, teaching, and learning computational statistics.Â  R is both an object-oriented language and a functional language that is easy to learn, easy to use, and completely free. A large community of dedicated R users and programmers provides an excellent source of R code, functions, and data sets, with a constantly evolving ecosystem of packages providing new functionality for data analysis. R has also become popular in commercial use at companies such as Microsoft, Google, and Oracle. Your investment in learning R is sure to pay off in the long term as R continues to grow into the go to language for data analysis and research.What You Will Learn:How to acquire and install RHot to import and export data and scriptsHow to analyze data and generate graphicsHow to program in R to write custom functionsHot to use R for interactive statistical explorationsHow to conduct bootstrapping and other advanced techniques

## Book Information

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## Customer Reviews

I am not a beginner with R, but I am interested to see how people approach teaching R to beginners. It’s not an easy system to approach, though it should be.Some beginners seem to like this book, which depresses me a bit. The code tends to be clumsy, and all too often just plain wrong. (Clearly no reproducibility mechanism has been used as some examples are even syntactically incorrect.) A certain amount of clumsiness is probably a good idea if it leads the beginner to an understanding by a more accessible route, but most of the clumsiness here does not. An example is where the author uses an awkward loop to produce a copy of the vector x omitting the ith component, when all that is needed is x[-i], and I cannot believe this is difficult, even for beginners.What disappoints me about this book is that all to often it makes life difficult for the user and heads off in, to put it mildly, unhelpful and confusing directions.The book has a technical reviewer as part of the authorship team, but the role seem more of an adviser than of a reviewer. In places the ’reviewer’s’ advice is acknowledged, but not actually adopted. This I find very puzzling.

I like this book because it takes a practical hands-on approach to learning R by walking one through practical examples. I think the book is appropriately titled. It’s not an exhaustive reference manual or cookbook nor does it teach one statistics. I have a lot of experience with SAS and it was easy for me to learn R from this book using SAS as my frame of reference. Neither R nor SAS are Excel. The former are statistical languages and they assume that you are already comfortable with statistical methods.That said, it does have detailed examples on how to set up and run many of the popular statistical methods which I won’t enumerate here because you can read them all in the table of contents. Each section of the book that discusses a particular statistical method begins with an overview the relevant equations supporting it. I like the examples of plotting results. I’ll be using this book as a quick reference when I need it for statistical methods that I frequently use.

I acquired an MA-level education that involved lots of study of econometrics (basically regression analysis using economic variables) 20-plus years ago. Unfortunately I hadn’t used a lick of that knowledge until I was recently hired by a research org and felt the need to brush up on my stats and regression skills. This book, combined with a download of the R console, was my ticket to get back up and running with my new statistician peers. The author includes a lot of useful datasets, the most interesting to me being the student retention study which he indicates resulted in a very valuable real-life implementation at his institution. Yes, there are occasional disconnects between the R commands displayed and the output (some missing attach statements and load / read commands).

That can be annoying but at least it makes you think when you enter those command and create output. If you're paying full freight for a hardcopy I can appreciate your concern over that (I read an online version), but if you would like to learn R and need to revisit the fundamentals like I did, this book is extremely useful.

There are two things I can say about this book with confidence: great content and well organized. The content inside this book is well researched and tested, which makes code snippets very useful. What I like the most is the structure of this book. It makes total sense how each chapter is put into the sequence as they appears in the book. Each chapter builds upon the previous knowledge and the entire book flows really nicely together. As a bonus, there is even a chapter on how to contribute your own package to the R project. I am impressed by the author's and editorial team's ability to complete the entire book in less than nine months!

Great book for a beginner and advanced

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