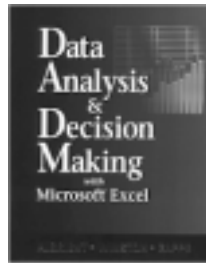


■ ANDREW RUPPEL, Feature Editor, McIntire School of Commerce, University of Virginia

Spreadsheet software development and curriculum reform continue to be principal drivers of 'quant methods' textbook revisions. Examples of the former are the optimization and simulation add-ins to Microsoft's Excel. In the latter case of curriculum reform, it is the combining of topics previously addressed at length in separate statistics, management science, and decision theory courses into consolidated data and decision analysis courses. The generic importance of sound data analysis to managerial decision making, while always recognized as important, is getting more attention. Now, in an odd way, more of more has to be covered in single courses. Here are three textbooks, each taking advantage of Excel's prevalence, that are responding to this intensified focus.

Excel-ing in Data Analysis

Andrew Ruppel, Feature Editor



Data Analysis & Decision Making with Microsoft Excel
by Albright, Winston, and Zappe
Duxbury, 1999, 996 pages.
www.duxbury.com

This is an expanded version of the first two authors' 1997 text, *Practical Management Science*, for the same publisher. The updated version is essentially a coupling of business statistics chapters with chapters on decision trees, optimization, and simulation. Use of various Excel add-ins is made in almost all chapters. There are three categories of add-ins: one to enhance statistical analysis, another set for optimization, and the largest set (the @Risk family of add-ins) for augmenting simulation efforts. All are bundled on one compact disk. More cases are added, now totally 38, with a least one per chapter, courtesy of colleagues at Columbia. There is a great deal of material here—the book, including the front-end, Roman- numerated pages, exceeds 1,000 pages. I'd be hard-pressed to see how all the material could be covered in a conventional three-credit-hour, semester-length course. Fortunately, the authors offer guidance on alternative chapter combinations to meet differing instructor goals. For example, the last three chapters, covering optimization and simulation, can be combined with the chapter on decision

making under uncertainty to form a separate course.

The inside front covers provide a roster of over 130 functional area applications that are provided in the text as examples. Operations management has the most, with finance and marketing essentially tied for second. An alphabetized list of the applications appears in the book's index as well. The opening chapter nicely previews subsequent ones by giving eight examples that appear later. The lead authors have obviously put their experience with their earlier management science text to good use in developing this one.



Data, Statistics, and Decision Models with Excel
by Harnett and Horrell
Wiley, 1998, 605 pages.
www.wiley.com

This text is similar in topic coverage to the Albright et al. text, but is more compact in its treatment, as evidenced by the difference in length (605 vs. 996 pages, and 12 vs. 16 chapters). It, too, has a multi-functional scope and places emphasis on modeling business problems and the application (as opposed to the theory) of



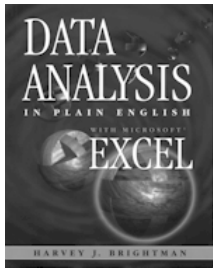
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American Society for Engineering Education and the American Assembly of Collegiate Schools of Business, and has served with NASA and the International Atomic Energy Agency (with diplomatic rank). He teaches in the areas of statistics and global business.

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solution methods. Risk and financial topics are presented from the outset. The particular Excel add-in provided on disk with this book is *KaddStat*, developed by Brian Kilmer. It performs various routines, such as computing seasonal indices, but is not, to my knowledge, available in the commercial software market. The better known @Risk add-in is also referred to in several chapters, but is not included as part of the text package. The authors have provided two very helpful appendices—one providing a much better-than-usual algebra review and the other an effective summary of the Excel commands appropriate to the book's topics. The book's screen-display illustrations are very effective in conveying their purpose. A second disk accompanying the book contains all of the data sets in one large Excel workbook, with the bottom-of-the-screen tabs identifying each set. This is a bit inconvenient when one wants to develop a particular data set into a multi-page solution, e.g., with graphs placed on separate pages. The compactness, yet broad coverage, of this book make it an appealing choice for upper-level and graduate-level courses.



Data Analysis in Plain English with Microsoft Excel
by Harvey J. Brightman
Duxbury, 1999, 594 pages.
www.duxbury.com

Prof. Brightman brings his special brand of pedagogical insight to the task of get-

ting students to think clearly and straightforwardly about dealing with data. While using a customary chapter sequence for a general statistics text, he adjusts the delivery to tune the student at the very outset into the very crucial distinction between cross-sectional and time-ordered data as well as that between qualitative and quantitative data. Thus, almost every chapter has a section on data types and their associated management contexts. An inside-back-cover summary of methods by data type and page location is provided. Discussions of practical measurement error and the appropriateness of rounding off are needed, however, in order to tune results to the mindset of practicing managers. The chapter on correlation that traditionally precedes regression is broadened to address describing multivariate data in general. He also capitalizes on an opportunity here to give the student a sneak preview of autoregression well before the forecasting chapter. This is a clever touch for an introductory text. Excel functions used are covered in chapter appendices.

The book has 12 chapters in all, including one on statistical quality control. No separate add-ins are used, however. Overall, one might be tempted to say that there is not enough material, but the exposition is well thought out. For example, in the regression chapter, the author nicely leads the reader through the thought processes associated with regression model building in terms of sources of variance. The text seems especially appropriate for evening classes and for use with a separate collection of cases or data sets. There is an unusual inclusion of the chi-square test for independence at the end of the regression



chapter. But this stems from Brightman's focus in this chapter on identifying relationships—in the chi-square case, identifying the relationship between categorical vari-

ables. I'd be inclined to include this technique in the hypothesis testing chapter, but I appreciate his reminding me to think *first* about the problem and its data and not about the method.

Microsoft Excel Function Reference, 2nd ed.

Microsoft Press, 1995, 313 pages.
www.amazon.com

Instructors using Excel-based texts for QM and other courses might find this paperback useful. This volume contains all the functions in strict alphabetical order. Each entry gives syntax, examples, and cross-references to related functions. True, its content is readily available within Excel itself, but having the full details in book form helps in an overview fashion. Handy to have, the Excel 95 and Excel 97 versions are no longer available from Microsoft Press. Copies usually can be found, however, at local bookstores or can be ordered via the Internet. ■

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