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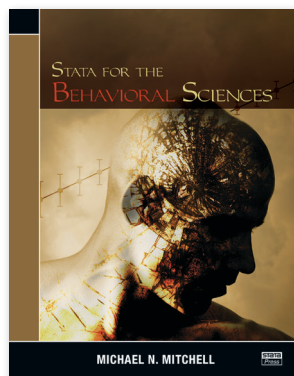
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Stata for the Behavioral Sciences



By Michael N. Mitchell

Publisher: Stata Press

Copyright: 2015

ISBN: 978-1-59718-173-0

Pages: 646; paperback

Price: \$62.00

For more details or to order, visit us online at
stata-press.com/books/stata-for-the-behavioral-sciences.



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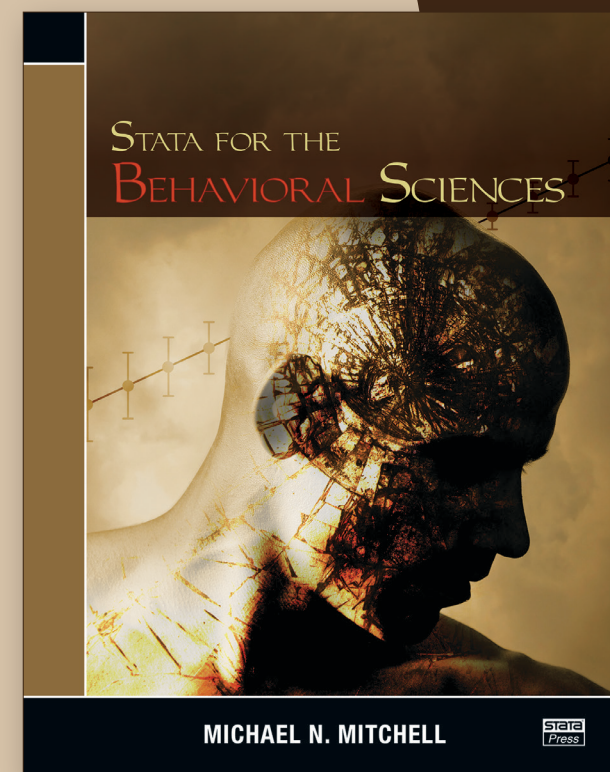
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About the author

Michael Mitchell is a senior statistician working in the area of sleep research as well as the prevention of child maltreatment. He is the author of *A Visual Guide to Stata Graphics*, *Data Management Using Stata*, and *Interpreting and Visualizing Regression Models Using Stata*. Previously, he worked for 12 years as a statistical consultant and manager of the UCLA ATS Statistical Consulting Group. There he envisioned the UCLA Statistical Consulting Resources website and wrote hundreds of webpages about Stata.

The book's audience

- Researchers in the behavioral sciences
- Anyone interested in ANOVA or in applying ANOVA-style interpretation to other models
- Analysts transitioning to Stata from SPSS

Highlights

- Demonstrates fitting models to data from a variety of designs—one-factor, two-factor, three-factor, repeated measures, longitudinal, complex survey, and more
- Shows how to use Stata to easily understand the effects of categorical factors, continuous covariates, and interactions
- Introduces power analysis for ANOVA, ANCOVA, and regression models
- Provides Stata code and datasets so that the reader can reproduce all examples
- Gives an overview of Stata for new users and converts commonly used SPSS commands into Stata syntax

Comment from the Stata technical group

Stata for the Behavioral Sciences, by Michael Mitchell, is the ideal reference for researchers using Stata to fit ANOVA models and other models commonly applied to behavioral science data. Drawing on his education in psychology and his experience in consulting, Mitchell uses terminology and examples familiar to the reader as he demonstrates how to fit a variety of models, how to interpret results, how to understand simple and interaction effects, and how to explore results graphically.

Although this book is not designed as an introduction to Stata, it is appealing even to Stata novices. Throughout the text, Mitchell thoughtfully addresses any features of Stata that are important to understand for the analysis at hand. He also is careful to point out additional resources such as related videos from Stata's YouTube channel.

The book is divided into five sections.

The first section contains a chapter that introduces Stata commands for descriptive statistics and another that covers basic inferential statistics such as one- and two-sample *t* tests.

The second section focuses on between-subjects ANOVA modeling. The discussion moves from one-way ANOVA models to ANCOVA models to two-way and three-way ANOVA models. In each case, special attention is given to the use of commands such as **contrast** and **margins** for testing specific hypotheses of interest. Mitchell also emphasizes the understanding of interactions through contrasts and graphs. Underscoring the importance of planning any experiment, he discusses power analysis for *t* tests, for one- and two-way ANOVA models, and for ANCOVA models.

Section three of the book extends the discussion in the previous section to models for repeated-measures data and for longitudinal data.

The fourth section of the book illustrates the use of the **regress** command for fitting multiple regression models. Mitchell then turns his attention to tools for formatting regression output, for testing assumptions, and for model

building. This section ends with a discussion of power analysis for simple, multiple, and nested regression models.

The final section has a tone that differs from the first four. Rather than focusing on a particular type of analysis, Mitchell describes elements of Stata. He first discusses estimation commands and similarities in syntax from command to command. Then, he details a set of postestimation commands that are available after most estimation commands. Another chapter provides an overview of data management commands. This section ends with a chapter that will be of particular interest to anyone who has used IBM® SPSS®; it lists commonly used SPSS® commands and provides equivalent Stata syntax.

This book is an easy-to-follow guide to analyzing data using Stata for researchers in the behavioral sciences and a valuable addition to the bookshelf of anyone interested in applying ANOVA methods to a variety of experimental designs.

