

Preface to the Fourth Edition

When I was writing the first edition of this book, we all pictured a book printed in black and white. All the other books in the Stata Press catalog were in black and white. As the book was nearing completion, Stata Press found a printer who could print the book in full color. The book was nearly done—nearly done in black and white. I took a hard swallow, and we agreed that even though it would take extra time and rethinking parts of the book from scratch, the book should be in color. Seeing all the features that Stata has added for supporting colors, I find it hard to imagine this book any other way. This new edition goes *all in* on the features that Stata offers for displaying colors. In the third edition, the section on color styles had five examples—that section in this new edition includes over 50 examples [see `Styles:Colors` (401)]. Instead of trying to explain the look of colors at different intensities and opacities, I show you commands and graphs that illustrate different colors shown at differing intensities and using differing opacities. Further, I illustrate how these options interact when regions with different colors are overlaid atop each other. You can play with these examples to explore other combinations of colors/intensities/opacities, either alone or when overlapping one another.

In addition to the new coverage of colors, this new edition details the methods you can use for sizing objects, showing the three ways of sizing objects using *absolute units* (like points, inches, and centimeters) and the three ways you can size objects using *relative units* (such as using keywords like `large`, multipliers of the original size like `*2`, or sizes relative to the size of the graph, like `5rs`). Each of these units is illustrated in the context of sizing different elements, such as text [like titles, axis labels, marker labels, legends, and so on; see `Styles:Textsize` (447)]; markers [see `Styles:Markersize` (439)]; line widths [see `Styles:Linewidth` (434)]; and more. Each of those sections illustrates sizing of elements in isolation—additionally, `Standard options:Sizing graphs` (386) illustrates resizing the entire graph and the different results you obtain when individual elements are sized using relative units versus absolute units.

If you have used prior editions of the book, you may notice that this edition no longer includes a chapter on the Graph Editor and that the examples focus exclusively on the use of commands for creating graphs. This is not a commentary about the utility of the Graph Editor, but instead a reflection that this book was getting too large and that Stata has a growing library of video tutorials that *interactively show* how to create and modify graphs via the Stata interface. In section 1.7, I describe the utility of the interactive point-and-click interface for creating and modifying graphs and suggest videos I think illustrate key features.

The overall look of this book is dramatically different from the prior edition. The prior editions periodically changed the schemes to introduce novelty and pizzazz and to underscore how powerful schemes are for controlling the entire look of your graph. This new edition uses one common scheme and changes the scheme only when there is a rationale for choosing one scheme over another. With schemes in mind, the heart of section `Standard`

options: Schemes (366) shows three different kinds of graphs, one at a time, illustrating the look of that graph using selected schemes that ship with Stata, schemes included with this book, and several schemes from the worldwide Stata community.

Writing this fourth edition book was a great pleasure, especially for the respite it gave during such difficult and turbulent times. I deeply hope that this book finds you happy, healthy, and—most of all—safe.

Ventura, California
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