

# THE STATA NEWS

Volume 17 Number 2

April/May/June 2002

www.stata.com



**STATA**<sup>®</sup>  
**Press**

## Have you visited [www.stata-press.com](http://www.stata-press.com)?

We have posted a new web site for Stata users at <http://www.stata-press.com>. Details about all Stata Press books and journals and the Stata Documentation are available.

The information includes downloadable Stata .dta files for the datasets used in the Stata Press books and in the Stata 7 Reference Manual Set. To access the datasets, simply go to <http://www.stata-press.com/data/>, and then follow the on-line instructions.

Information is also included for persons interested in writing books about statistics or Stata. Visit <http://www.stata-press.com/guidelines/> for information on submissions.

## An Introduction to Survival Analysis Using Stata text now available

*An Introduction to Survival Analysis Using Stata* is the ideal tutorial for the professional data analyst who either wishes to learn survival analysis for the first time, or who is well-versed in survival analysis but not as dexterous in using Stata to analyze survival data. This text also serves as a valuable reference to those who already have experience using Stata's survival analysis routines.

Survival analysis is a field of its own requiring specialized data management and analysis procedures. Toward this end, Stata has the **st** family of commands for organizing and summarizing survival data. The authors of this text are also the authors of Stata's **st** commands, and they are also the authors of Stata's NetCourse 631—An Introduction to Survival Analysis. This text is an outgrowth of the lecture notes for that course, and those who have taken the course will find in this text the companion text that many participants lamented not having.

This book is a combination of statistical theory, step-by-step procedures for analyzing survival data, an in-depth usage guide for Stata's most widely used **st** commands, and a collection of tips and pointers for using Stata to analyze survival data and to present the results. This book develops from first principles the statistical concepts unique to survival data, and assumes only a knowledge of basic probability and statistics and a working knowledge of Stata.

The first three chapters of the text cover basic theoretical concepts: hazard functions and cumulative hazard functions and their interpretations, survivor functions, hazard models, and a comparison of nonparametric, semiparametric and parametric methodologies. Chapter 4 deals with censoring and truncation. The next three chapters cover the formatting, manipulations, **stsetting**, and error-checking involved in getting survival data "ready" for analysis using Stata's **st** analysis commands. Chapter 8 covers nonparametric methods, including the Kaplan–Meier and Nelson–Aalen estimators, and the various nonparametric tests for the equality of survival experience.

Chapter 9, 10, and 11 are devoted to Cox regression and include various examples of fitting a Cox model, obtaining predictions, interpreting results, building models, and model diagnostics. The final four chapters cover parametric models, which are fit using Stata's **streg** command. Included in these chapters are detailed derivations of all six parametric models currently supported in Stata, methods for determining which model is appropriate, obtaining predictions, stratification, and advanced topics such as frailty models.

The datasets used in this book are available for download from <http://www.stata-press.com/data/saus.html>.

A complete table of contents, as well as on-line ordering information, can be found at <http://www.stata-press.com/books/saus.html>. You may also order using the enclosed bookstore order form.



Title: *An Introduction to Survival Analysis Using Stata*

Authors: Mario Cleves, William Gould, and Roberto Gutierrez

Publisher: Stata Press

Copyright: 2002

ISBN: 1-881228-63-0

Pages: 290; paperback

Price: \$52.00

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## Introduction to Stata multimedia CD now available



Title: *Introduction to Stata multimedia CD*

Publisher: Stata Press

Copyright: 2002

ISBN: 1-881228-80-0

Price: \$29.00

Available for **Windows** and **Macintosh**

*Introduction to Stata*, a multimedia CD teaching the basics of using Stata, is now available. The CD was originally developed at the Johns Hopkins Bloomberg School of Public Health by Bill Rising. It consists of four modules teaching those parts of Stata not related to statistics: importing and exporting data, basic data management, creating graphs and tables, Stata syntax, manipulating datasets, and more. The modules consist of between 35 and 45 videos each that demonstrate the basics of Stata.

### Table of Contents

#### The Stata Statistical Package

- Stata's Windows
- The Utility of Log Files
- Opening and Exploring Datasets
- Data as Tables
- Brief Statistical Summaries
- Creating Tables
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#### Syntax Diagrams and Graphing

- The Joy of Syntax
- Using Help
- Creating Computed Variables
- Creating Basic Graphs
- Moving Graphs to Other Applications

#### Getting Data into Stata & Making Datasets

- Stata's Data Editor
- Importing Data
- From Data to Dataset
- Working with Categorical Variables & Dates

#### Putting Datasets Together & Automation

- Adding New Data to Old: Adding Observations
- Combining Data from Many Sources: Adding Variables
- A Brief Hint of Automation
- Analysis Without Data

You can order on-line from the Stata Press web site at <http://www.stata-press.com/multimedia/introcd.html> or by using the enclosed bookstore order form.

## From the Stata Bookstore

### Epidemiology: An Introduction



Title: *Epidemiology: An Introduction*

Author: Kenneth J. Rothman

Publisher: Oxford University Press

Copyright: 2002

ISBN: 0-19-513554-7

Pages: 223; paperback

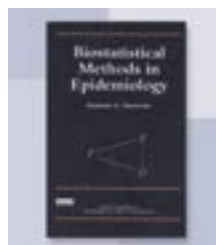
Price: \$29.75

The study of epidemiology, by necessity, requires a deep conceptual understanding of the statistics that underly the science. So often, however, more attention is paid to the formulas, calculations, and software, than to the actual concepts that help to understand why a certain statistical method can be used to solve a particular problem, where other statistical methods may fall short. Those who are well-versed in the mathematics but are new to using statistics in epidemiological problems will quickly find themselves immersed in a sea of jargon: case-control studies, crossover designs, incidence rates, rate-ratios, etc. In these cases, the key to understanding epidemiological statistics is in understanding all the terminology.

This text is ideal for the first-time user of epidemiological statistics who wishes to grasp all this terminology and who wishes to understand just why epidemiologists use the statistical tools that they do. The text is non-mathematical in its presentation and discusses statistical techniques in the context of the (real) problems that they can solve. As such, this text is a good addition to an emerging bibliography of texts that bridge the gap between what is learned in an introductory statistics text and what it takes to be an effective researcher and data analyst.

A complete table of contents, as well as on-line ordering information, can be found at <http://www.stata.com/bookstore/epid.html>. You may also order using the enclosed bookstore order form.

### Biostatistical Methods in Epidemiology



Title: *Biostatistical Methods in Epidemiology*

Author: Stephen C. Newman

Publisher: John Wiley & Sons, Inc.

Copyright: 2001

ISBN: 0-471-36914-4

Pages: 382; hardcover

Price: \$84.75

*Biostatistical Methods in Epidemiology* offers an overview of methodology used for analyzing epidemiologic data and is ideally suited for graduate students in the medical sciences and for practicing medical researchers in general. The book emphasizes nonregression methods such as life tables and the Mantel-Haenszel estimate of the

odds ratio, rather than the sometimes overused and conceptually less accessible regression methods such as logistic regression and the Cox model. The text is slightly more mathematical than what is usually considered an applied treatment of the topic, yet the mathematics are presented well and the appendices are well-utilized to cover the more intensive derivations.

The text begins with a brief overview of probability distributions, means and variances, random sampling, and measurement issues such as confounding and misclassification. Odds ratios are then introduced early on in the context of stratified and unstratified closed cohort studies. Risk ratio and risk difference methods for closed cohort studies are covered next, followed by a brief introduction to survival analysis including some terminology, the Kaplan–Meier curve, and Poisson methods for survival data. The text then proceeds with the analysis of case–control data and age-period cohort analysis. The book closes with some considerations of sample size and power and brief summaries of logistic regression and the Cox model.

A complete table of contents, as well as on-line ordering information, can be found at <http://www.stata.com/bookstore/bmie.html>. You may also order using the enclosed bookstore order form.

## Latest NetCourse™ schedule

The Stata NetCourses™ have been well-received by participants as is reflected in the following remarks:

- “I thought the material was excellent. I was also impressed by the opportunity the students had to ask questions and the efforts made by the Course Leaders to answer them regardless of how complicated the question.”
- “I thought the NetCourse was superior because of the quality of the notes and the emphasis on intuition.”
- “The NetCourses are simply great.”

A NetCourse is a “lecture” posted to the NetCourse web site on Friday. After reading the lecture over the weekend or on Monday, participants can post questions and comments to the course discussion area. Course Leaders respond to the questions and comments on Tuesday and Thursday. The other participants are encouraged to amplify or otherwise respond to the questions or comments as well. The next lecture is then posted on Friday, and the process repeats. After the last lecture, discussion continues for a few additional weeks until the course concludes.

A brief summary of the upcoming NetCourses is listed below. For more details on how NetCourses work and for course syllabi, visit <http://www.stata.com/info/products/netcourse>.

An enrollment form for the upcoming NetCourses has been enclosed with the Stata News. You can also enroll on-line at <http://www.stata.com/info/products/netcourse/enrollment.html>.

## NC-101. Introduction to Stata

NC-101 is designed to take smart, knowledgeable people and turn them into proficient interactive users of Stata. The course covers not just the obvious such as getting data into Stata, but also covers detailed techniques and tricks to make you a powerful Stata user. From web update features and match-merging to using `by` groups and explicit subscribing, many of Stata’s key concepts are explored.

Introduction to Stata	
Prerequisites	
Stata 7	
Dates offered	
June 21 – August 2	July 19 – August 30
Course Leaders	
Kevin Crow and Derek Wagner	
Enrollment Deadlines	
June 17	July 15
Price	
\$95	

## NC-151. Introduction to Stata programming

NC-151 is intended for all Stata users. Through a combination of lectures, example applications, and carefully chosen problems, the course addresses the full range of methods and techniques necessary to be most productive in the Stata environment. Beginning with effective ways to organize both simple and complicated analyses in Stata, NetCourse 151 then moves into programming elements that can be used to work more efficiently. Key programming topics include macro processing, program flow of control, using do-files, programming ado-files, Monte-Carlo simulations, and bootstrapped standard errors.

Introduction to Stata programming	
Prerequisites	
Stata 7; basic knowledge of using Stata interactively	
Dates offered	
June 21 – August 2	September 13 – October 25
Course Leaders	
Shannon Driver and Weihua Guan	
Enrollment Deadlines	
June 17	September 9
Price	
\$125	

## Have you heard about Stata/SE?

SE stands for Special Edition. Stata/SE is a larger version of Stata. It allows more variables, longer string variables, and larger matrices (meaning models with more RHS variables and panels with longer time-series):

	Intercooled Stata	Stata/SE
max. variables	2,047	32,766
max. string length	80	244
max. matrix size	800 x 800	11,000 x 11,000

And even better, Stata/SE is just as fast as Intercooled Stata.

For single-user licenses, upgrade prices from Intercooled Stata 7 are \$150 (academic) / \$250 (nonacademic). To order, use the enclosed upgrade order form or order on-line at <http://www.stata.com/info/order/index3.html>.

## Have you subscribed to the Stata Journal?



The Stata Journal is a quarterly, refereed publication that focuses on articles of interest to all Stata users, from beginner to advanced.

The Stata Journal, Volume 2, Number 2 is being printed at the time of this writing. Here is the table of contents for this issue:

### Articles and Columns

Power by simulation .....	A. Feiveson
Testing for normality .....	D. M. Drukker
strbee.....	I. White, S. Walker, & A. Babiker
Concordance correlation coefficient ...	T. J. Steichen & N. J. Cox
Sample size calculation .....	P. Royston & A. Babiker
G-estimation of causal effects .....	J. Sterne & K. Tilling
From the help desk.....	A. McDowell & J. Pitblado
Speaking Stata.....	N. J. Cox
Review of Hamilton.....	J. Freese

The tables of contents for previous issues are posted at <http://www.stata-journal.com/archives.html>.

To order a new subscription or to order a renewal to the Stata Journal, use the enclosed bookstore order form or subscribe on-line at <http://www.stata-press.com/journals/sj.html>.

**THE STATA NEWS** is published 4 times a year. It is free to all registered users of Stata.



## HOW TO REACH US

**Stata Corporation**  
4905 Lakeway Drive  
College Station TX 77845  
USA

**PHONE** 979-696-4600  
**FAX** 979-696-4601  
**EMAIL** [stata@stata.com](mailto:stata@stata.com)  
**WEB** [www.stata.com](http://www.stata.com)

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