THE STATA NEWS

Stata Journal: special issue

The second-quarter *Stata Journal* is a special issue devoted to maximum simulated likelihood (MSL). MSL is a technique used to evaluate likelihood functions that depend on high-dimensional integrals, such as multivariate distribution functions. MSL is used in a broad array of applications. This issue of the *Journal* features articles on the following topics:

- Calculating multivariate normal probabilities, which frequently appear in nonlinear panel-data models

- Multinomial logit with unobserved heterogeneity, an extension of the familiar multinomial choice model to work with panel data

- Count data models with endogenous multinomial treatment, to model how a treatment chosen from a set of alternatives affects a nonnegative integer-valued outcome

- Dynamic random-effects probit with autocorrelation, for use when an outcome in one period depends on the outcome in the previous period

Regular issues of the *Stata Journal* appeal to Stata users of all disciplines and include refereed articles about statistics, data analysis, teaching methods, and effective use of Stata's language. Each issue also includes editor Nick Cox's "Speaking Stata" column, which concentrates on Stata's programming language; Bill Gould's "Mata Matters" column on Stata's matrix programming language; and user-contributed "Stata Tips", concise notes about Stata commands, features, or tricks.

For more details or to order a copy of the special issue, visit **http://www.stata-journal.com/current.html**, or to subscribe to the *Stata Journal*, visit **http://www.stata.com/bookstore/sj.html**.

New platform supported

Stata/MP is now available for Solaris (x86-64).

To order, visit **http://www.stata.com/order/** or call 800-782-8272 or 979-696-4600.

Inside this issue:

THE STATA NEWS is published four times a year and is free to all registered users of Stata.

Latest developments

Recently added features to Stata include the following:

- Stata's `irf` command now lets you obtain dynamic multipliers after fitting dynamic simultaneous equation models. Dynamic multipliers let you see how shocks to exogenous variables affect your system's equilibrium.

How Investment Shocks Affect Consumption
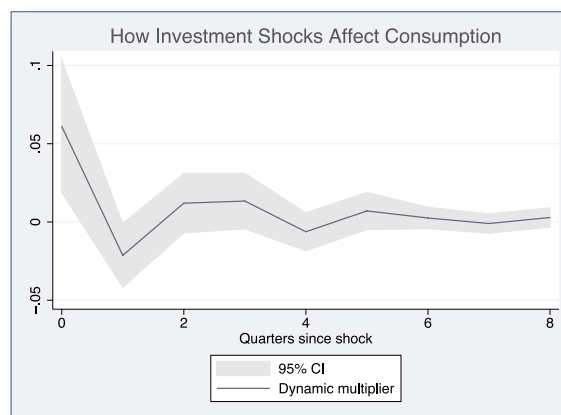
- Stata now lets you assign a data signature to a dataset, allowing you to detect whether the data have changed since you last signed them:

  ▶ Prepare your dataset for analysis and then type

    ```
    datasignature
    ```

  ▶ Record the data signature in a log file or attach it as a note in your dataset before your analysis.

  ▶ When you or a colleague returns to the dataset later, type

    ```
    datasignature
    ```

  again. If the data signatures match, your data are intact. If not, someone changed the data.

- New command `xtset` simplifies the declaration of panel data, just like `tsset` and `stset` for time-series and survival time datasets.

- Mata now supports structures, giving advanced programmers the ability to create sets of variables as a single unit and simplifying argument passing among functions and subroutines.

These new features are freely available to Stata 9 users. Just select "Official Updates" from the **Help** menu or type `update all`. To find out more about the new features, type `help whatsnew` after updating and click on whatever you find interesting.

Have you heard about Stata/MP?

Stata/MP runs on multiprocessor machines, including dual-core PCs and multiprocessor servers. Using Stata/MP, you can analyze data in as little as half the time of Stata/SE on inexpensive dual-core desktops—and faster still on multicore machines. For larger computers, Stata/MP supports as many as 32 processors and is available for Windows, Macintosh, Linux, and Solaris. To purchase or learn more, visit http://www.stata.com/statamp/.
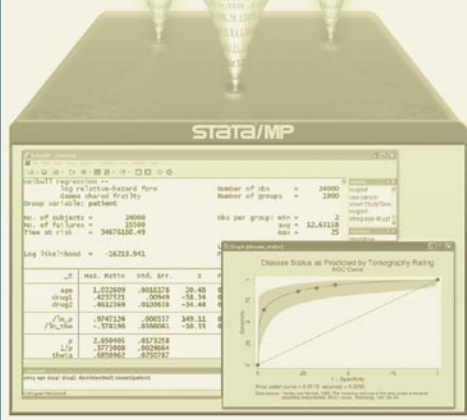
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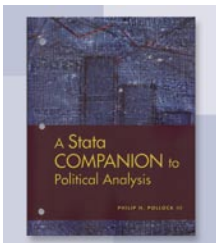
Title:	*A Stata Companion to Political Analysis*
Author:	Philip H. Pollock III
Publisher:	CQ Press
Copyright:	2006
Pages:	217; paperback
ISBN-10:	0-87289-305-7
ISBN-13:	978-0-87289-305-4
Price:	$34.75

Philip Pollock's *A Stata Companion to Political Analysis* can guide you whether you are teaching or taking your first political science course. The book will teach you how to control Stata with either the command line or the graphical user interface—whichever mode fits the task. Pollock also surveys the statistical methods that professional political scientists use. His treatment of research methods deftly incorporates data management, graphical analysis, and statistics into the political science domain.

The book assumes no prior experience with Stata and begins with basics such as using `describe`, using the help system, working with log files, and using notes. The next several chapters discuss descriptive statistics like means, proportions, and one- and two-way tables; creating indicator and percentile variables; and bar charts and histograms. Many of the datasets encountered in political science contain categorical and interval variables, and the book emphasizes the tools needed to analyze them.

Chapters 6 and 7 introduce statistical tests, including t tests of sample means and χ^2 tests of association. Correlation and linear regression

are covered in chapter 8, and because of the prevalence of discrete variables in political science, chapter 9 is devoted to using dummy variables and interaction effects in linear regression. Chapter 10 explores logistic regression.

The final chapter is particularly relevant to students of political science. Titled "Doing Your Own Political Analysis", it presents several topics that can be explored using the techniques covered in the book, such as the relationship between economic performance and election outcomes and the determinants of electoral turnout. The chapter also explains how to find appropriate datasets and how to structure a research paper.

Pollock's *A Stata Companion to Political Analysis* will be useful to students who have never used Stata and are new to analyzing political science datasets, and it is a useful guide to more experienced political scientists looking for an introduction to Stata.

The table of contents and online ordering information can be found at http://www.stata.com/bookstore/scpa.html. You can also order using the enclosed bookstore order form.

Title:	*New Introduction to Multiple Time Series Analysis*
Author:	Helmut Lütkepohl
Publisher:	Springer
Copyright:	2006
Pages:	764; paperback
ISBN-10:	3-540-26239-3
ISBN-13:	978-3-540-26239-8
Price:	$68.75

Helmut Lütkepohl's *New Introduction to Multiple Time Series Analysis* expands on and updates his seminal *Introduction to Multiple Time Series Analysis* to create what is sure to become the standard reference on multivariate time series.

Like its predecessor, this book provides the most complete coverage of stationary vector autoregressive (VAR) and vector autoregressive moving average (VARMA) models of any book. For each model, Lütkepohl discusses the estimators and their properties, forecasting, impulse–response analysis, forecast error variance decompositions, specification testing and model selection, and inference.

Incorporating more than six chapters of new material, *New Introduction to Multiple Time Series Analysis* also provides extensive coverage of more recent developments in time series, including the vector error-correction model (VECM) for cointegrated processes, structural VARs, structural VECMs, cointegrated VARMA processes, and multivariate models for conditionally heteroskedastic processes.

Written in a rigorous yet lucid style, this book can serve as a graduate-level textbook on multivariate time series as well as an accessible reference for the seasoned practitioner. It is also an excellent companion to Stata's *Time-Series Reference Manual*.

The table of contents and online ordering information can be found at http://www.stata.com/bookstore/imtsa.html. You can also order using the enclosed bookstore order form.

Title: *Research Methods in Occupational Epidemiology, 2nd Edition*

Authors: Harvey Checkoway, Neil Pearce, and David Kriebel

Publisher: Oxford University Press

Copyright: 2004

Pages: 372; hardback

ISBN-10: 0-19-509242-2

ISBN-13: 978-0-19-509242-4

Price: $46.75

Occupational epidemiology concerns illnesses and injuries related to the workplace environment rather than those from nutritional, environmental, or pharmacological sources. Although all branches of epidemiology use the same basic statistical principles, occupational epidemiology focuses more on hazard identification, accurate exposure measurement, the effects of measurement error in exposure assessment, and public policy development. As such, *Research Methods in Occupational Epidemiology, Second Edition*, focuses on these areas while working through the standard statistical methods. Each chapter ends with an extensive bibliography, making the book an excellent desk reference for practicing epidemiologists, occupational or otherwise.

The first two chapters frame the discussion by defining the scope of occupational epidemiology and describing the concept of exposure in workplace environments. The next several chapters cover various study designs, including case–control, cohort, and repeated-measure studies, along with an examination of assessing the precision and validity of those studies. The final chapters present alternative methods of analyzing the collected data, such as summary measures of exposure, the dosimetric model, induction time analysis, and the multistage cancer model.

Research Methods in Occupational Epidemiology will appeal to a spectrum of users, including students, academics, and practitioners.

The table of contents and online ordering information can be found at **http://www.stata.com/bookstore/rmoe.html**. You can also order using the enclosed bookstore order form.
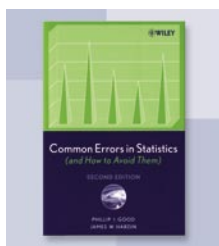
Title: *Common Errors in Statistics, 2nd Edition*

Authors: Phillip I. Good and James W. Hardin

Publisher: Wiley

Copyright: 2006

Pages: 254; paperback

ISBN-10: 0-471-79431-7

ISBN-13: 978-0-471-79431-8

Price: $44.75

This book contains common-sense, minimally technical advice about how to improve experimental design, analyze data, and present results. It provides a guide for experienced scientists, as well as for students learning to design and complete experiments and statistical analysis.

The text begins with a discussion of foundations that covers sources of error, hypotheses, and data collection. The second section, on hypothesis testing and parameter estimation, takes a harder look at statistical evaluation of the data, including the strengths and limitations of various statistical procedures, and guidelines for reporting results, from what information to include to how to create an informative and easy-to-understand graph. The final section covers building a model, with topics on univariate and multivariable regression, as well as validation of the model chosen.

Two articles are reprinted in the two appendices. The first demonstrates that one can find highly significant R^2 among totally independent normally distributed random variables; the second provides a partial solution to this conundrum.

The second edition also offers new material devoted to unbalanced designs, report interpretation, and alternative modeling methods.

The table of contents and online ordering information can be found at **http://www.stata.com/bookstore/ceis.html**. You can also order using the enclosed bookstore order form.
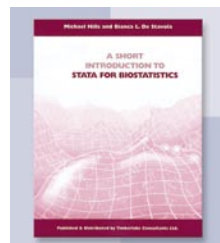
Title: *A Short Introduction to Stata for Biostatistics*

Author: Michael Hills and Bianca L. De Stavola

Publisher: Timberlake Consultants

Copyright: 2006

Pages: 170; paperback

ISBN-10: 0-9552127-1-5

ISBN-13: 978-0-9552127-1-0

Price: $49.75

A Short Introduction to Stata for Biostatistics bridges the information in the *Getting Started* manual and the *Reference* manuals by providing a more detailed introduction to the most often used analytic methods in biomedical research. Although it is written specifically for biostatisticians, epidemiologists, and health professionals new to Stata, the book is useful for more experienced users wanting more in-depth knowledge of Stata commands and biostatistical issues. The book is hands on, intended to be used while working with Stata, and includes a CD-ROM containing the datasets and several author-written programs.

This edition incorporates updates for Stata 9.1. New content includes enhanced material on dialog boxes, Nelson–Aalen plots of cumulative rate, metric exposure on a log scale, and time-updated exposures.

The first four chapters provide an overview of data entry and management commands, including those used to create, label, and drop variables and to sort observations. After two chapters on graphics, the bulk of the book details methods used in data description and analysis. Beginning with commands used to create frequency tables and summary statistics, the book proceeds to describe commands used for univariate and multivariate analyses, including linear regression, Poisson regression, logistic regression, and survival data analysis. Included among the final chapters is a useful tutorial for writing your own Stata programs.

The table of contents and online ordering information can be found at **http://www.stata.com/bookstore/sisb.html**. You can also order using the enclosed bookstore order form.

12th United Kingdom Stata Users Group meeting
Registration and information

Date:	**September 11–12, 2006**
Venue:	**London, United Kingdom**
	City University, Cass Business School, 106 Bunhill Row
Cost:	£75.00 for both days, £50.00 for one day
	£30.00 for dinner (optional)

The 12th London meeting, organized by Nicholas J. Cox (Durham University) and Patrick Royston (MRC Clinical Trials Unit, London), features a strong cast of speakers from across the spectrum of the Stata community, including visitors from Australia, Hungary, Italy, The Netherlands, and the United States. Representing StataCorp, David Drukker and Vince Wiggins will give three extended tutorials. The meeting will close with the usual "Report to Users" and "Wishes and Grumbles" sessions.

Registration and information

Web:	http://www.stata.com/meeting/12uk/
Email:	info@timberlake.co.uk
Tel:	+44 0208 6973377
Fax:	+44 0208 6973388

Timberlake Consultants can also help you find accommodations in London.

Preliminary program

Another extension of the Blinder–Oaxaca decomposition technique to nonlinear models
Tamás Bartus, Institute of Sociology and Social Policy, Corvinus University, Budapest

Time-series filtering techniques in Stata
Kit Baum, Department of Economics, Boston College

Consistency checking with assertk
Krishnan Bhaskaran, Hannah Green, MRC Clinical Trials Unit, London

A comparison analysis of dynamic panel data estimators in the presence of endogenous regressors
Giovanni S. F. Bruno, Istituto di Economia Politica, Università Bocconi, Milan

Modeling for response variables that are proportions
Maarten L. Buis, Department of Social Research Methodology, Vrije Universiteit Amsterdam

Statistics for the paranormal
Nicholas J. Cox, Durham University

Econometric analysis of panel data using Stata
David M. Drukker, StataCorp, College Station, TX

A brief introduction to Mata
David M. Drukker, StataCorp, College Station, TX

Automatic generation of documents
Rosa Gini and Jacopo Pasquini, Regional Agency for Public Health of Tuscany

Automating the production of large reports from Stata
Ross Harris, Department of Social Medicine, University of Bristol

Estimating and modeling the proportion cured of disease in population-based cancer studies
Paul C. Lambert, Centre for Biostatistics and Genetic Epidemiology, University of Leicester

On the central role of Somers' D
Roger Newson, National Heart and Lung Institute, Imperial College London

Two postestimation commands for assessing confounding effects in medical and epidemiological studies
Zhiqiang Wang, Centre for Chronic Diseases, School of Medicine, University of Queensland

Problems with infinite solutions in logistic regression
Ian White, MRC Biostatistics Unit, Cambridge

Scheming your way to consistent graphs
Vincent L. Wiggins, StataCorp, College Station, TX

Photo by Rupert Jefferies
www.morgueFile.com

Program committee
Nicholas J. Cox, *Durham University*
Patrick Royston, *MRC Clinical Trials Unit*

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Unit B3, Broomsleigh Business Park
Worsley Bridge Road
London SE26 5BN, United Kingdom

2nd Australian and New Zealand Stata Users Group meeting
Registration and information

Date:	**September 20–21, 2006**
Venue:	**Melbourne, Australia**
Day 1:	Marriott Hotel, Exhibition Street
Day 2:	Monash University Conference Centre, Collins Street
Cost:	**Early-bird registration (before August 25)** $250 for both days; $150 for one day
	Regular registration (August 25–September 20) $450 for both days; $225 for one day

The meeting's goal is to bring together a wide range of users to discuss statistical analysis, data management, and graphics using Stata. We encourage speakers to present their experiences with the package, whether using standard commands, writing new programs, or exploiting the graphics facilities.

Notes on the program
The first day of the meeting will showcase user presentations. Possible topics include, but are not limited to, the following:

- Using Stata for statistical analysis
- Importing and managing data in Stata
- Teaching Stata
- Using Stata in specific fields
- User-written Stata programs
- Using Stata for graphics
- Teaching statistics with Stata

The second day features a workshop on mixed models in Stata, led by Roberto Gutierrez of StataCorp. This workshop will be a hands-on opportunity to learn about mixed models (often called random-effects models) and their implementation in Stata. The application of these models includes variance-components analysis, longitudinal (panel) data analysis, and hierarchical (multilevel) regression. The workshop will focus on continuous-scale dependent variables but will also cover categorical dependent variables.

Bring your own laptop if possible, although a few laptops will be available for early birds.

Registration and information

Web:	http://www.stata.com/meeting/2australia/
Email:	irene.thavarajah@adm.monash.edu.au
Tel:	+61 3 9905 1344
Fax:	+61 3 9905 1343

Program committee

Rory Wolfe, *Monash University*

Robert Breunig, *Australian National University*

John Carlin, *University of Melbourne and the Royal Children's Hospital*

Peter Herbison, *University of Otago*

Karl Keesman, *Survey Design and Analysis Services Pty. Ltd.*

Philip Ryan, *University of Adelaide*

Lyn Watson, *LaTrobe University*

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Survey Design and Analysis Services Pty Ltd	8 Wilton Street
www.survey-design.com.au	Blackburn North, Victoria 3130
sales@survey-design.com.au	Australia

3rd Italian Stata Users Group meeting
Registration and information

Date:	**October 9–10, 2006**
Venue:	**Rome, Italy** Hotel Artemide, via Nazionale, 23
Cost:	**Day 1 only** €80
	Day 1 + course "Analysis of Survey Data in Stata" €150
	Day 1 + course "Analysis of Panel Data in Stata" €245

The third Italian Stata Users Group meeting will give Stata users working in different research areas the opportunity to exchange ideas, experiences, and information on new applications of the software.

Notes on the program
The meeting will be organized in four sessions. Each session will include three presentations of approximately 20 minutes, followed by 10–15 minutes of discussion. The first session will be reserved for an invited speaker. Topics include the following:

- Developing new commands or procedures
- Using Stata in previously unpublished empirical research
- Other applications of Stata for solving problems of general interest, for example, data management

Two training sessions on analyzing survey data and panel data in Stata will be offered on the second day of the meeting. **Analysis of Survey Data in Stata**, led by Jeff Pitblado of StataCorp, discusses Stata's features for analyzing survey and correlated data and will explain how and when to use the three major variance estimators for survey and correlated data: the linearization estimator, balanced repeated replications, and the clustered jackknife (the last two having been added in Stata 9). The talk will also discuss sampling designs and stratification, including Stata's new features for estimation with data from multistage designs and for applying poststratification. A theme of the seminar will be how you can make inferences with correct coverage from data collected by single-stage or multistage surveys or from data with inherent correlation, such as data from longitudinal studies.

Details on the **Analysis of Panel Data in Stata** session are forthcoming.

Registration and information

Web:	http://www.stata.com/meeting/3italian/
Email:	paola@tstat.it
Tel:	+39 0864 210101
Fax:	+39 0864 206014

Program committee

Una-Louise Bell, *TStat, S.r.l.*

Rino Bellocco, *Karolinska Institutet*

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NC101. Introduction to Stata

Content:	An introduction to using Stata interactively
Prerequisites:	Stata 9
Course leaders:	Kevin Crow, Kerry Kammire, and Derek Wagner
Course length:	6 weeks (4 lectures)
Dates:	September 8–October 20, 2006
Enrollment deadline:	September 7, 2006
Cost:	$95
Course syllabus:	http://www.stata.com/netcourse/nc101.html

NC151. Introduction to Stata Programming

Content:	An introduction to using Stata programming dealing with what most statistical software users mean by programming, namely, the careful performance of reproducible analyses
Prerequisites:	Stata 9; basic knowledge of using Stata interactively
Course leaders:	Kevin Crow, Kerry Kammire, and Derek Wagner
Course length:	6 weeks (4 lectures)
Dates:	September 8–October 20, 2006
Enrollment deadline:	September 7, 2006
Cost:	$125
Course syllabus:	http://www.stata.com/netcourse/nc151.html

NC152. Advanced Stata Programming

Content:	Advanced issues of programming in the Stata language, focusing on writing commands for general use
Prerequisites:	Stata 9; NC151 or equivalent knowledge
Course leaders:	Kevin Crow, Kerry Kammire, and Derek Wagner
Course length:	7 weeks (5 lectures)
Dates:	October 6–November 24, 2006
Enrollment deadline:	October 5, 2006
Cost:	$150
Course syllabus:	http://www.stata.com/netcourse/nc152.html

HOW TO REACH US

StataCorp	**PHONE**	979-696-4600
4905 Lakeway Drive	**FAX**	979-696-4601
College Station, TX 77845	**EMAIL**	stata@stata.com
USA	**WEB**	www.stata.com

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email: software@quantec.co.za

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email: info@ritme.com

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Timberlake Consultants
Serving Eire, Ireland, UK
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email: info@timberlake.co.uk

Timberlake Consulting S.L.
Serving Spain
tel: +34 955601430
email: timberlake@timberlakeconsulting.com

Timberlake Consultores, Lda.
Serving Portugal
tel: +351 245 308 549
email: info@timberlake.pt

TStat S.r.l.
Serving Italy
tel: +39 0864 210101
email: tstat@tstat.it

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email: softinfo@univcoop.or.jp

Tashtit Scientific Consultants, Ltd.
Serving Israel
tel: +972-3-523-0825
email: info@tashtitsoft.co.il

Timberlake Consultores Brasil
Serving Brazil
tel: +55-11-3040-3042
email: info@timberlake.com.br

Timberlake Consultants Polska
Serving Poland
tel: +48 (0)600 370 435
email: info@timberlake.pl

Token Communication, Ltd.
Serving Romania
tel: +40 264 450201
email: token@pcnet.ro

UYTES
Serving Turkey
tel: +90 312 446 1866
email: info@uytes.com.tr