THE STATA NEWS

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www.stata.com

Windows Vista supported

Stata 9 is available for Vista, the latest version of Microsoft Windows. Stata 9 has been fully tested under Windows Vista, and support for Vista in Stata was available simultaneously with the Microsoft release of Vista.

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





Title: Generalized Linear Models and Extensions, 2nd Edition Authors: James W. Hardin and Joseph M. Hilbe Publisher: Stata Press Copyright: 2007 Pages: 387; paperback ISBN-10: 1-59718-014-9 ISBN-13: 978-1-597-014-6 Price: \$54.00

Generalized linear models (GLMs) extend standard linear (Gaussian) regression techniques to models with a non-Gaussian, or even discrete, response. GLM theory is predicated on the exponential family of distributions—a class so rich that it includes the commonly used logit, probit, and Poisson distributions. Although one can fit these models in Stata by using specialized commands (e.g., logit for logit models), fitting them under the GLM paradigm with Stata's glm command offers the advantage of having many models under the same roof. For example, model diagnostics may be calculated and interpreted similarly regardless of the assumed distribution.

This text thoroughly covers GLMs, both theoretically and computationally. The theory consists of showing how the various GLMs are special cases of the exponential family, general properties of this family of distributions, and the derivation of maximum likelihood (ML) estimators and standard errors. The book shows how iteratively reweighted least squares, another method of parameter estimation, is a consequence of ML estimation via Fisher scoring. The authors also discuss different methods of estimating standard errors, including robust methods, robust methods with clustering, Newey–West, outer product of the gradient, bootstrap, and jackknife. The thorough coverage of model diagnostics includes measures of influence such as Cook's distance, nine forms of residuals, the Akaike and Bayesian information criteria, and various R^2 -type measures of explained variability.

After presenting general theory, the text then breaks down each distribution. Each distribution has its own chapter that discusses the computational details of applying the general theory to that particular distribution. Pseudocode plays a valuable role here, since it lets the authors describe computational algorithms relatively simply. Devoting an entire chapter to each distribution (or family in GLM terms) also allows including real-data examples showing how Stata fits such models, as well as presenting certain diagnostics and analytical strategies that are unique to that family. The chapters on binary data and on count (Poisson) data are excellent in this regard. Hardin and Hilbe give ample attention to the problems of overdispersion and zero inflation in count-data models.

The final part of the text concerns extensions of GLMs, which come in three forms. First, some chapters cover multinomial responses, both ordered and unordered. Although strictly not part of GLM, the theory is similar in that one can think of a multinominal response as an extension of a binary response. The examples presented in these chapters often use the authors' own Stata programs, augmenting official Stata's capabilities. Second, GLMs may be extended to clustered data through generalized estimating equations (GEEs), and one chapter covers GEE theory and examples. Finally, GLMs may be extended by programming one's own family and link functions for use with Stata's official glm command, and the book covers this process.

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

New distributor for The Netherlands

StataCorp is pleased to introduce its new certified distributor for The Netherlands, DPC Nederland.

We especially invite Dutch users to the German Stata Users Group meeting, where they will be able to meet Natascha van Sprundel, DPC

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

Nederland's Stata sales leader, and Axel Holzmüller, cofounder and CEO of DPC.

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Fifth German Stata Users Group meeting

Date:	Monday, April 2, 2007
Venue:	Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI Essen) Hohenzollernstr. 1-3. 45128 Essen, Germany
Conference fee:	€25, regular €10, students
Optional meal:	€20
Web:	http://www.stata.com/meeting/5german/

The fifth German Stata Users Group meeting will be held at the RWI Essen on Monday, April 2. Users of all experience levels will benefit from lectures provided by experienced Stata users from around the world. The conference language will be English because of the international nature of the meeting.

The meeting will feature presentations on a broad range of topics, such as

- user-written Stata programs,
- case studies of research or teaching using Stata,
- · discussions of data management problems,
- reviews of analytical issues, and
- surveys or critiques of Stata facilities in specific fields.

Among the papers already scheduled for presentation are

"Why should you become a Stata programmer?" Christopher Baum *Boston College*

"Making regression tables simplified" Ben Jann *ETH Zurich* "Assessing the reasonableness of an imputation model" Maarten Buis *Vrije Universiteit Amsterdam*

If you are interested in presenting a paper, please submit an abstract (maximum 200 words) by email to one of the organizers. Presentations should be 20 minutes or shorter. The deadline for submissions is February 28, 2007.

The presentations are being organized by

- Johannes Giesecke, University of Mannbeim giesecke@rumms.uni-mannheim.de
- John P. Haisken-DeNew, RWI Essen jhaiskendenew@rwi-essen.de
- Ulrich Kohler, WZB kohler@wzb.eu

Logistics are being handled by Dittrich and Partner, the distributor of Stata in several countries including Germany, The Netherlands, Austria, and Poland.

Registration and information

To register for the meeting, contact

Anke Mrosek Dittrich & Partner Consulting GmbH Kieler Str. 17 42697 Solingen

Tel: +49 (0) 212 260 66-24 Fax: +49 (0) 212 260 66-66 Email: anke.mrosek@dpc.de

To find hotel and other information, visit http://www.stata.com/meeting/5german/



2006 German Stata Users Group meeting

From the Stata Bookstore



Title: A Handbook of Statistical Analyses Using Stata, 4tb Edition Authors: Sophia Rabe-Hesketh and Brian Everitt Publisher: Chapman & Hall/CRC Copyright: 2007 Pages: 352; paperback ISBN-10: 1-58488-756-0 ISBN-13: 978-1-58488-756-0 Price: \$52.75

The fourth edition of *A Handbook of Statistical Analyses Using Stata*, by Sophia Rabe-Hesketh and Brian Everitt, is now available and incorporates many of the features introduced in Stata 9. The book provides practical examples of using Stata for real-world analysis. It begins with a concise 41-page introduction to Stata and progresses to intermediate topics such as multiple regression, analysis of variance, and logistic regression. Chapter-length discussions cover more advanced topics, such as the generalized linear model (GLM), survival analysis, maximum likelihood estimation, cluster analysis, and principal components analysis.

The most distinguishing feature of this text is its use of case studies to help users learn Stata's capabilities in the various subfields of statistics, including GLMs, survival analysis, panel (longitudinal) data, and cluster analysis. For example, the discussion of survival analysis revolves around a study of methadone maintenance treatment to aid heroin addicts in overcoming their addiction.

A Handbook of Statistical Analyses Using Stata would make an excellent supplemental textbook in a course in statistics, allowing students to learn Stata on their own while reviewing concepts taught during lectures. The book will also help practitioners, particularly those in biostatistics and the health sciences, to become proficient with Stata quickly.

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



Title: Linear Mixed Models and Extensions Authors: Brady T. West, Kathleen B. Welch, and Andrzej T. Galecki Publisher: Chapman & Hall/CRC Copyright: 2007 Pages: 353; hardcover ISBN-10: 1-58488-480-0 ISBN-13: 978-1-58488-480-4 Price: \$78.75

This book provides an excellent first course in the theory and methods of linear mixed models. Topics covered include discussions of fixed versus random effects, properties of estimators, nested versus crossed factors, tests of hypotheses for fixed effects (including degrees-offreedom calculations), tests of hypotheses for variance components including likelihood-ratio tests for nested random-effects structures, and various model diagnostics.

The text also provides a thorough and up-to-date guide through the major software applications for linear mixed models, namely, Stata, SAS, R, SPSS, and HLM. Each of five middle chapters highlights a different software package and teaches you the basics of fitting mixed models therein. Tables comparing each package show the results obtained from fitting identical models, as well as explaining any differences encountered.

If you wish to fit linear mixed models, whether in Stata or elsewhere, we recommend this text.

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



Title: Managing Your Patients' Data in tbe Neonatal and Pediatric ICU Author: Joseph Sullivan Publisher: Blackwell Copyright: 2006 Pages: 365; hardcover ISBN-10: 0-727918-70-2 ISBN-13: 978-0-727918-70-2 Price: \$79.75

This new text offers a nice marriage of database management and statistical analysis in Stata. Although the database management software and related discussion are specific to the author's institution, readers in similar clinical environments should easily be able to adapt the content to their local situations. Indeed, readers looking for a practical application of Stata's odbc command for interacting with databases will find this text useful.

The standard methods of the biostatistician's toolbox are all covered, from epidemiological tables to survival analysis to logistic regression, the analyses therein performed entirely using Stata.

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



Upcoming NetCourse[™] schedule

Stata NetCourses are a convenient, inexpensive, web-based way to learn how to exploit the full power of Stata. Courses are divided into a series of lectures that are posted to the web site each Friday, and participants can post questions and comments to a discussion board. We also offer NetCourseNow, a way for you to choose the time and pace of a NetCourse.

Enroll by visiting http://www.stata.com/netcourse/ or use the enclosed order form.

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:	March 9–April 20, 2007
Enrollment deadline:	March 8, 2007
Cost:	\$95
Course syllabus:	http://www.stata.com/netcourse/nc101.html

NC151. Introduction to Stata Programming

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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:	March 9–April 20, 2007
Enrollment deadline:	March 8, 2007
Cost:	\$125
Course syllabus:	http://www.stata.com/netcourse/nc151.html

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