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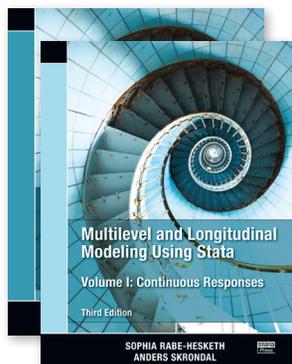
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What's new in the third edition

- Now in two volumes
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 - » Solutions to selected exercises can be downloaded from the book's website
 - » 49 new exercises and 40 new datasets

Multilevel and Longitudinal Modeling Using Stata, Third Edition



By Sophia Rabe-Hesketh and
Anders Skrondal

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Multilevel and Longitudinal Modeling Using Stata, Third Edition may be purchased as a two-volume set for \$109. Alternatively, either volume may be purchased individually for \$62.

- **Volume I: Continuous Responses**
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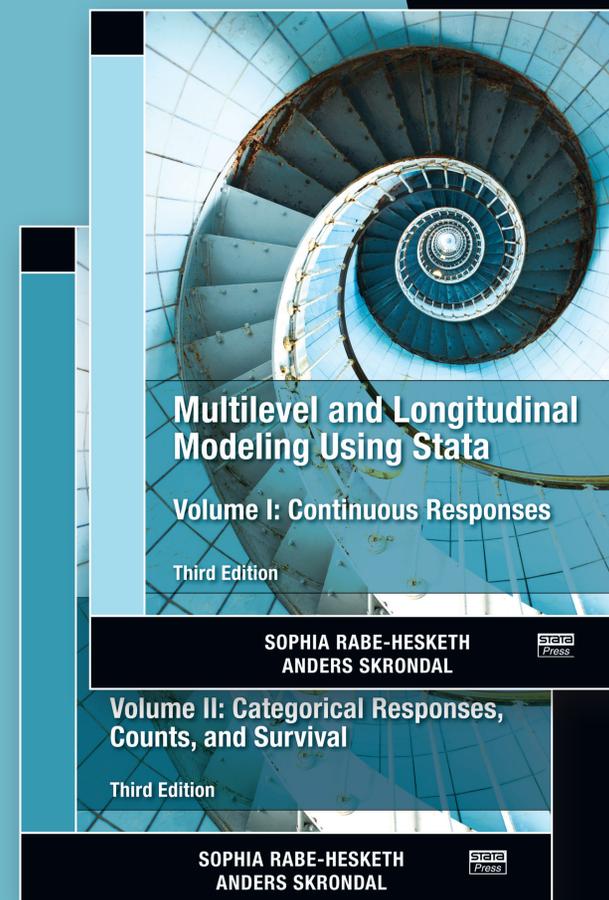
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About the authors

Sophia Rabe-Hesketh and Anders Skrondal are experts in multilevel and longitudinal modeling and have taught courses on these topics for many years. They have published in numerous journals, including *Biometrics*, *Psychometrika*, and *Journal of Econometrics*, and they are the authors of a popular text on generalized latent-variable modeling. They developed software for fitting multilevel models and other generalized linear and latent mixed models (GLLAMMs) in Stata.

Sophia Rabe-Hesketh is a professor at the Graduate School of Education and Graduate Group in Biostatistics, University of California, Berkeley, and at the Institute of Education, University of London.

Anders Skrondal is a senior biostatistician at the Division of Epidemiology, Norwegian Institute of Public Health.

The book's audience

- Researchers in the biomedical, behavioral, and social sciences wanting to analyze multilevel or longitudinal/panel data
- Students in the biomedical, behavioral, and social sciences who want to learn methods beyond multiple linear regression, and students in applied statistics and biostatistics
- Instructors who teach multilevel modeling
 - » Ideal textbook for introducing concepts, assumptions, and good practice in multilevel modeling and teaching analysis skills in Stata (complete solutions manuals and slides of figures from the book are available to instructors who adopt the book)
 - » A great resource, providing 144 exercises and 110 datasets across a wide range of disciplines
- Stata users wanting additional information on `xtreg`, `xtmixed`, `xtlogit`, `xtmelogit`, `xtpoisson`, `xtmepoisson`, `xtgee`, `xthtaylor`, `xtpcse`, etc., `clogit`, `mlogit`, `streg`, `stcox`, and `gllamm`.

Comment from the Stata technical group

Multilevel and Longitudinal Modeling Using Stata, Third Edition is an ideal, comprehensive introduction to generalized linear mixed models and related models for clustered and longitudinal data. Rabe-Hesketh and Skrondal explain the models and their assumptions, apply the methods to real data using Stata, and interpret the results.

Volume I is devoted to continuous Gaussian linear mixed models and has nine chapters organized into four parts. The first part reviews linear regression and is a useful refresher of or introduction to Stata. The second part provides in-depth coverage of two-level models. It starts by introducing the notion of random effects for models without covariates, then smoothly generalizes to random-intercept models with covariates, emphasizing the distinction between within- and between-cluster effects, and finally introduces random slopes or coefficients. The third part of volume I describes models for longitudinal and panel data, including fixed-effects models, dynamic models, marginal models (a new chapter), and growth-curve models (a new chapter). The fourth and final part covers models with nested and crossed random effects, including a new chapter describing in more detail higher-level nested models for continuous outcomes. Volume I is ideal for a course on multilevel or longitudinal modeling—for courses that also cover analysis of binary responses, the chapter on this topic from volume II is freely downloadable from the book's website.

Volume II is devoted to generalized linear mixed models for binary, categorical, count, and survival outcomes. The second volume has seven chapters also organized into four parts. The first three parts in volume II cover models for categorical responses, including binary, ordinal, and nominal or discrete-choice (a new chapter); models for count data; and models for survival or duration data, including discrete-time and continuous-time (a new chapter) survival. The fourth and final part in volume II describes models with nested and crossed-random effects with an emphasis on binary outcomes. Each chapter also discusses alternatives to mixed models, such as generalized estimating equations and fixed effects or conditional maximum likelihood approaches.

The authors discuss many compelling applications of generalized mixed models that span a wide range of disciplines, including the medical, social, and behavioral sciences.

Comments from reviewers on the second edition

The authors ... provide a comprehensive and lucid account of multilevel modelling. Even complex models are clearly and sufficiently explained with surprisingly little mathematical content... The book discusses many topics which are ignored in other standard textbooks, such as endogeneity, the difference between within and between subject effects in panel models or lagged response and autoregressive models. ... The book is, therefore, an excellent combination of a thorough introduction to multilevel modelling and a tutorial on Stata commands for analysing such models. ... Examples in the text and exercises at the end of each chapter are stimulating and cover a wide range of real life applications from medical, behavioural and social science research. ... In summary, the book is ... very well-written and provides [a] comprehensive guide to multilevel modelling, both from a practical and a theoretical point of view.

Statistical Methods in Medical Research
(2009, vol 18, 111–113)

...[Rabe-Hesketh and Skrondal] have produced a comprehensive, nontechnical introduction to multilevel/mixed effect models that would be an excellent choice of text for application-oriented courses on the analysis of longitudinal, panel, or clustered data...

...Sophia Rabe-Hesketh and Anders Skrondal move seamlessly between the methods and language of biostatistics and econometrics...

The American Statistician
(2010, vol 64, 275)