Regression Models For Categorical Dependent Variables Using Stata Third Edition

Written in an informal and non-technical style, this book first explains the theory behind logistic regression and then shows how to implement it using the SAS System. Allison includes several detailed, real-world examples of the social sciences to provide readers with a better understanding of the material. He also explores the differences and similarities among the many generalizations of the logistic regression model.

Ordinal measures provide a simple and convenient way to distinguish among possible outcomes. The book provides practical guidance on using ordinal outcome models.

This book presents the econometric analysis of single-equation and simultaneous-equation models in which the jointly dependent variables can be continuous, categorical, or truncated. Despite the traditional emphasis on continuous variables in econometrics, many of the economic variables encountered in practice are categorical (those for which a suitable category can be found but where no actual measurement exists) or truncated (those that can be observed only in certain ranges). Such variables are involved, for example, in models of occupational choice, choice of tenure in housing, and choice of type of schooling. Models with regulated prices and rationing, and models for program evaluation, also represent areas of application for the techniques presented by the author.

Generalized Linear Models for Categorical and Continuous Limited Dependent Variables is designed for graduate students and researchers in the behavioral, social, health, and medical sciences. It incorporates examples of truncated counts, censored continuous variables, and doubly bounded continuous variables, such as percentages. The book provides broad, but unified, coverage, and the authors integrate the concepts and ideas shared across models and types of data, especially regarding conceptual links between discrete and continuous limited dependent variables. The authors argue that these dependent variables are, if anything, more common throughout the human sciences than the kind that suit linear regression. They cover special cases or extensions of models, estimation methods, model diagnostics, and, of course, software. They also discuss bounded continuous variables, boundary-inflated models, and methods for modeling heteroscedasticity. Wherever possible, the authors have illustrated concepts, models, and techniques with real or realistic datasets and demonstrations in R and Stata, and each chapter includes several exercises at the end. The illustrations and exercises help readers build conceptual understanding and fluency in using these techniques. At several points the authors bring together material that has been previously scattered across the literature in journal articles, software package documentation files, and blogs. These features help students learn to choose the appropriate models for their purpose.

Logistic Regression is designed for readers who have a background in statistics at least up to multiple linear regression, who want to analyze dichotomous, nominal, and ordinal dependent variables cross-sectionally and longitudinally.

After reviewing the linear regression model and introducing maximum likelihood estimation, Long extends the binary logit and probit models, presents multinomial and conditioned logit models and describes models for sample selection bias.

In conjunction with top survey researchers around the world and with Nielsen Media Research serving as the corporate sponsor, the Encyclopedia of Survey Research Methods presents state-of-the-art information and methodological examples from the field of survey research. Although there are other "how-to" guides and references texts on survey research, none is as comprehensive as this Encyclopedia, and none presents the material in such a focused and approachable manner. With more than 600 entries, this resource uses a Total Survey Error perspective that considers all aspects of possible survey error from a cost-benefit standpoint.

This book provides the most comprehensive treatment to date of microeconometrics, the analysis of individual-level data on the economic behavior of individuals or firms using regression methods for cross section and panel data. The book is oriented to the practitioner. A basic understanding of the linear regression model with matrix algebra is assumed. The text can be used for a microeconometrics course, typically a second-year economics PhD course; for data-oriented applied microeconometrics field courses; and as a reference work for graduate students and applied researchers who wish to fill in gaps in their toolkit. Distinguishing features of the book include emphasis on nonlinear models and robust inference, simulation-based estimation, and problems of complex survey data. The book makes frequent use of numerical examples based on generated data to illustrate the key models and methods. More substantially, it systematically integrates into the text empirical illustrations based on seven large and exceptionally rich data sets.

The Workflow of Data Analysis Using Stata, by J. Scott Long, is an essential productivity tool for data analysts. Long presents lessons gained from his experience and demonstrates how to design and implement efficient workflows for both one-person projects and team projects. After introducing workflows and explaining how a better workflow can make it easier to work with data, Long describes planning, organizing, and documenting your work. He then introduces how to write and debug Stata do-files and how to use local and global macros. After a discussion of conventions that greatly simplify data analysis the author covers cleaning, analyzing, and protecting data.

Interpreting and Visualizing Regression Models Using Stata, Second Edition provides clear and simple examples illustrating how to interpret and visualize a wide variety of regression models. Including over 200 figures, the book illustrates linear models with continuous predictors (modeled linearly, using polynomials, and piecewise), interactions of continuous predictors, categorical predictors, interactions of categorical predictors, and interactions of continuous and categorical predictors. The book also illustrates how to interpret and visualize results from multilevel models, models where time is a continuous predictor, models with time as a categorical predictor, nonlinear models (such as logistic or ordinal logistic regression), and models involving complex survey data. The examples illustrate the use of the margins, marginsplot, contrast, and pwcompare commands. This new edition reflects new and enhanced features added to Stata, most importantly the ability to label statistical output using value labels associated with factor variables. As a result, output regarding marital status is labeled using intuitive labels like Married and Unmarried instead of using numeric values such as 1 and 2. All the statistical output in this new edition capitalizes on this new feature, emphasizing the interpretation of results based on variables labeled using intuitive value labels. Additionally, this second edition illustrates other new features, such as using transparency in graphics to more clearly visualize overlapping

confidence intervals and using small sample-size estimation with mixed models. If you ever find yourself wishing for simple and straightforward advice about how to interpret and visualize regression models using Stata, this book is for you.

"This entry-level text offers clear and concise guidelines on how to select, construct, interpret, and evaluate count data. Written for researchers with little or no background in advanced statistics, the book presents treatments of all major models using numerous tables, insets, and detailed modeling suggestions. It begins by demonstrating the fundamentals of linear regression and works up to an analysis of the Poisson and negative binomial models, and to the problem of overdispersion. Examples in Stata, R, and SAS code enable readers to adapt models for their own purposes, making the text an ideal resource for researchers working in public health, ecology, econometrics, transportation, and other related fields"--

'The editors of the new SAGE Handbook of Regression Analysis and Causal Inference have assembled a wide-ranging, high-quality, and timely collection of articles on topics of central importance to quantitative social research, many written by leaders in the field. Everyone engaged in statistical analysis of social-science data will find something of interest in this book.' - John Fox, Professor, Department of Sociology, McMaster University 'The authors do a great job in explaining the various statistical methods in a clear and simple way - focussing on fundamental understanding, interpretation of results, and practical application - yet being precise in their exposition.' - Ben Jann, Executive Director, Institute of Sociology, University of Bern 'Best and Wolf have put together a powerful collection, especially valuable in its separate discussions of uses for both cross-sectional and panel data analysis.' -Tom Smith, Senior Fellow, NORC, University of Chicago Edited and written by a team of leading international social scientists, this Handbook provides a comprehensive introduction to multivariate methods. The Handbook focuses on regression analysis of cross-sectional and longitudinal data with an emphasis on causal analysis, thereby covering a large number of different techniques including selection models, complex samples, and regression discontinuities. Each Part starts with a non-mathematical introduction to the method covered in that section, giving readers a basic knowledge of the method’s logic, scope and unique features. Next, the mathematical and statistical basis of each method is presented along with advanced aspects. Using real-world data from the European Social Survey (ESS) and the Socio-Economic Panel (GSOEP), the book provides a comprehensive discussion of each method’s application, making this an ideal text for PhD students and researchers embarking on their own data analysis.

It is often necessary for social scientists to study differences in groups, such as gender or race differences in attitudes, buying behavior, or socioeconomic characteristics. When the researcher seeks to estimate group differences through the use of independent variables that are qualitative, dummy variables allow the researcher to represent information about group membership in quantitative terms without imposing unrealistic measurement assumptions on the categorical variables. Beginning with the simplest model, Hardy probes the use of dummy variable regression in increasingly complex specifications, exploring issues such as: interaction, heteroscedasticity, multiple comparisons and significance testing, the use of effects or contrast coding, testing for curvilinearity, and estimating a piecewise linear regression.

This book provides a comprehensive introduction to methods and models for categorical data analysis and their applications in social science research. Companion website also available, at https://webspace.utexas.edu/dpowers/www/

R is a language and environment for data analysis and graphics. It may be considered an implementation of S, an award-winning language initially - veloped at Bell Laboratories since the late 1970s. The R project was initiated by Robert Gentleman and Ross Ihaka at the University of Auckland, New Zealand, in the early 1990s, and has been developed by an international team since mid-1997. Historically, econometricians have favored other computing environments, some of which have fallen by the wayside, and also a variety of packages with canned routines. We believe that R has great potential in econometrics, both for research and for teaching. There are at least three reasons for this: (1) R is mostly platform independent and runs on Microsoft Windows, the Mac family of operating systems, and various ?avors of Unix/Linux, and also on some more exotic platforms. (2) R is free software that can be downloaded and installed at no cost from a family of mirror sites around the globe, the Comprehensive R Archive Network (CRAN); hence students can easily install it on their own machines. (3) R is open-source software, so that the full source code is available and can be inspected to understand what it really does, learn from it, and modify and extend it. We also like to think that platform independence and the open-source philosophy make R an ideal environment for reproducible econometric research.

Dive deeper into SPSS Statistics for more efficient, accurate, and sophisticated data analysis and visualization SPSS Statistics for Data Analysis and Visualization goes beyond the basics of SPSS Statistics to show you advanced techniques that exploit the full capabilities of SPSS. The authors explain when and why to use each technique, and then walk you through the execution with a pragmatic, nuts and bolts example. Coverage includes extensive, in-depth discussion of advanced statistical techniques, data visualization, predictive analytics, and SPSS programming, including automation and integration with other languages like R and Python. You'll learn the best methods to power through an analysis, with more efficient, elegant, and accurate code. IBM SPSS Statistics is complex: true mastery requires a deep understanding of statistical theory, the user interface, and programming. Most users don't encounter all of the methods SPSS offers, leaving many little-known modules undiscovered. This book walks you through tools you may have never noticed, and shows you how they can be used to streamline your workflow and enable you to produce more accurate results. Conduct a more efficient and accurate analysis Display complex relationships and create better visualizations Model complex interactions and master predictive analytics Integrate R and Python with SPSS Statistics for more efficient, more powerful code These "hidden tools" can help you produce charts that simply wouldn't be possible any other way, and the support for other programming languages gives you better options for solving complex problems. If you're ready to take advantage of everything this powerful software package has to offer, SPSS Statistics for Data Analysis and Visualization is the expert-led training you need.

Regression Models for Categorical Dependent Variables Using Stata, Third Edition shows how to use Stata to fit and interpret regression models for categorical data. The third edition is a complete rewrite of the book. Factor variables and the margins command changed how the effects of variables can be estimated and interpreted. In addition, the authors' views on interpretation have evolved. The changes to Stata and to the authors' views inspired the authors to completely rewrite their popular SPost commands to take advantage of the power of the margins command and the flexibility of factor-variable notation. The new edition will interest readers of a previous edition as well as new readers. Even though about 150 pages of appendixes were removed, the third edition is about 60 pages longer than the second. Although regression models for categorical dependent variables are common, few texts explain how to interpret such models; this text fills the void. With the book, Long and Freese provide a suite of commands for model interpretation, hypothesis testing, and model diagnostics. The new commands that accompany the third edition make it easy to include powers or interactions of covariates in regression models and work seamlessly with models estimated with complex survey data. The authors' new commands greatly simplify the use of margins, in the same way that the marginsplot command harnesses the power of margins for plotting predictions. The authors discuss how to use margins and their new mchange, mtable, and mgen commands to compute tables and to plot predictions. They also discuss how to

use these commands to estimate marginal effects, averaged either over the sample or at fixed values of the regressors. The authors introduce and advocate a variety of new methods that use predictions to interpret the effect of variables in regression models. The third edition begins with an excellent introduction to Stata and follows with general treatments of the estimation, testing, fit, and interpretation of this class of models. New to the third edition is an entire chapter about how to interpret regression models using predictions—a chapter that is expanded upon in later chapters that focus on models for binary, ordinal, nominal, and count outcomes. Long and Freese use many concrete examples in their third edition. All the examples, datasets, and author-written commands are available on the authors' website, so readers can easily replicate the examples with Stata. This book is ideal for students or applied researchers who want to learn how to fit and interpret models for categorical data.

"Comprising more than 500 entries, the Encyclopedia of Research Design explains how to make decisions about research design, undertake research projects in an ethical manner, interpret and draw valid inferences from data, and evaluate experiment design strategies and results. Two additional features carry this encyclopedia far above other works in the field: bibliographic entries devoted to significant articles in the history of research design and reviews of contemporary tools, such as software and statistical procedures, used to analyze results. It covers the spectrum of research design strategies, from material presented in introductory classes to topics necessary in graduate research; it addresses cross- and multidisciplinary research needs, with many examples drawn from the social and behavioral sciences, neurosciences, and biomedical and life sciences; it provides summaries of advantages and disadvantages of often-used strategies; and it uses hundreds of sample tables, figures, and equations based on real-life cases."--Publisher's description.

Electronic Inspection Copy available for instructors here 'This book provides an excellent reference guide to basic theoretical arguments, practical quantitative techniques and the methodologies that the majority of social science researchers are likely to require for postgraduate study and beyond' - Environment and Planning 'The book provides researchers with guidance in, and examples of, both quantitative and qualitative modes of analysis, written by leading practitioners in the field. The editors give a persuasive account of the commonalities of purpose that exist across both modes, as well as demonstrating a keen awareness of the different things that each offers the practising researcher' - Clive Seale, Brunel University 'With the appearance of this handbook, data analysts no longer have to consult dozens of disparate publications to carry out their work. The essential tools for an intelligent telling of the data story are offered here, in thirty chapters written by recognized experts. ' - Michael Lewis-Beck, F Wendell Miller Distinguished Professor of Political Science, University of Iowa 'This is an excellent guide to current issues in the analysis of social science data. I recommend it to anyone who is looking for authoritative introductions to the state of the art. Each chapter offers a comprehensive review and an extensive bibliography and will be invaluable to researchers wanting to update themselves about modern developments' - Professor Nigel Gilbert, Pro Vice-Chancellor and Professor of Sociology, University of Surrey This is a book that will rapidly be recognized as the bible for social researchers. It provides a first-class, reliable guide to the basic issues in data analysis, such as the construction of variables, the characterization of distributions and the notions of inference. Scholars and students can turn to it for teaching and applied needs with confidence. The book also seeks to enhance debate in the field by tackling more advanced topics such as models of change, causality, panel models and network analysis. Specialists will find much food for thought in these chapters. A distinctive feature of the book is the breadth of coverage. No other book provides a better one-stop survey of the field of data analysis. In 30 specially commissioned chapters the editors aim to encourage readers to develop an appreciation of the range of analytic options available, so they can choose a research problem and then develop a suitable approach to data analysis.

In a conversational tone, Regression & Linear Modeling provides conceptual, user-friendly coverage of the generalized linear model (GLM). Readers will become familiar with applications of ordinary least squares (OLS) regression, binary and multinomial logistic regression, ordinal regression, Poisson regression, and loglinear models. The author returns to certain themes throughout the text, such as testing assumptions, examining data quality, and, where appropriate, nonlinear and non-additive effects modeled within different types of linear models. Available with Perusall—an eBook that makes it easier to prepare for class Perusall is an award-winning eBook platform featuring social annotation tools that allow students and instructors to collaboratively mark up and discuss their SAGE textbook. Backed by research and supported by technological innovations developed at Harvard University, this process of learning through collaborative annotation keeps your students engaged and makes teaching easier and more effective. Learn more.

This accessible textbook and supporting web site use Excel (R) to teach introductory econometrics.

Providing easy-to-use R script programs that teach descriptive statistics, graphing, and other statistical methods, Learning Statistics Using R shows readers how to run and utilize R, a free integrated statistical suite that has an extensive library of functions. Lecturers - contact your local SAGE representative to discuss your course needs or to request an inspection copy. Randall E. Schumacker’s comprehensive book describes in detail the processing of variables in statistical procedures. Covering a wide range of topics, from probability and sampling distribution to statistical theorems and chi-square, this introductory book helps readers learn not only how to use formulae to calculate statistics, but also how specific statistics fit into the overall research process. Learning Statistics Using R covers data input from vectors, arrays, matrices and data frames, as well as the input of data sets from SPSS, SAS, STATA and other software packages. Schumacker’s text provides the freedom to effectively calculate, manipulate, and graphically display data, using R, on different computer operating systems without the expense of commercial software. Learning Statistics Using R places statistics within the framework of conducting research, where statistical research hypotheses can be directly addressed. Each chapter includes discussion and explanations, tables and graphs, and R functions and outputs to enrich readers? understanding of statistics through statistical computing and modeling.

Statistical Inference via Data Science: A ModernDive into R and the Tidyverse provides a pathway for learning about statistical inference using data science tools widely used in industry, academia, and government. It introduces the tidyverse suite of R packages, including the ggplot2 package for data visualization, and the dplyr package for data wrangling. After equipping readers with just enough of these data science tools to perform effective exploratory data analyses, the book covers traditional introductory statistics topics like confidence intervals, hypothesis testing, and multiple regression modeling, while focusing on visualization throughout. Features: ? Assumes minimal prerequisites, notably, no prior calculus nor coding experience ? Motivates theory using real-world data, including all domestic flights leaving New York City in 2013, the Gapminder project, and the data journalism website, FiveThirtyEight.com ? Centers on simulation-based approaches to statistical inference rather than mathematical formulas ? Uses the infer package for "tidy" and transparent statistical inference to construct confidence intervals and conduct hypothesis tests via the bootstrap and permutation methods ? Provides all code and

output embedded directly in the text; also available in the online version at moderndive.com This book is intended for individuals who would like to simultaneously start developing their data science toolbox and start learning about the inferential and modeling tools used in much of modern-day research. The book can be used in methods and data science courses and first courses in statistics, at both the undergraduate and graduate levels.

ALERT: Before you purchase, check with your instructor or review your course syllabus to ensure that you select the correct ISBN. Several versions of Pearson's MyLab & Mastering products exist for each title, including customized versions for individual schools, and registrations are not transferable. In addition, you may need a CourseID, provided by your instructor, to register for and use Pearson's MyLab & Mastering products. Packages Access codes for Pearson's MyLab & Mastering products may not be included when purchasing or renting from companies other than Pearson; check with the seller before completing your purchase. Used or rental books If you rent or purchase a used book with an access code, the access code may have been redeemed previously and you may have to purchase a new access code. Access codes Access codes that are purchased from sellers other than Pearson carry a higher risk of being either the wrong ISBN or a previously redeemed code. Check with the seller prior to purchase. -- Data Analysis with SPSS is designed to teach students how to explore data in a systematic manner using the most popular professional social statistics program on the market today. Written in ten manageable chapters, this book first introduces students to the approach researchers use to frame research questions and the logic of establishing causal relations. Students are then oriented to the SPSS program and how to examine data sets. Subsequent chapters guide them through univariate analysis, bivariate analysis, graphic analysis, and multivariate analysis. Students conclude their course by learning how to write a research report and by engaging in their own research project. Each book is packaged with a disk containing the GSS (General Social Survey) file and the States data files. The GSS file contains 100 variables generated from interviews with 2,900 people, concerning their behaviors and attitudes on a wide variety of issues such as abortion, religion, prejudice, sexuality, and politics. The States data allows comparison of all 50 states with 400 variables indicating issues such as unemployment, environment, criminality, population, and education. Students will ultimately use these data to conduct their own independent research project with SPSS. Note: MySearchLab does not come automatically packaged with this text. To purchase MySearchLab, please visit: www.mysearchlab.com or you can purchase a ValuePack of the text + MySearchLab with Pearson eText (at no additional cost). ValuePack ISBN-10: 0205863728 / ValuePack ISBN-13: 9780205863723

Regression Models for Categorical Dependent Variables Using Stata, Third EditionStata Press

An accessible guide to the growing field of financial econometrics As finance and financial products have become more complex, financial econometrics has emerged as a fast-growing field and necessary foundation for anyone involved in quantitative finance. The techniques of financial econometrics facilitate the development and management of new financial instruments by providing models for pricing and risk assessment. In short, financial econometrics is an indispensable component to modern finance. The Basics of Financial Econometrics covers the commonly used techniques in the field without using unnecessary mathematical/statistical analysis. It focuses on foundational ideas and how they are applied. Topics covered include: regression models, factor analysis, volatility estimations, and time series techniques. Covers the basics of financial econometrics—an important topic in quantitative finance Contains several chapters on topics typically not covered even in basic books on econometrics such as model selection, model risk, and mitigating model risk Geared towards both practitioners and finance students who need to understand this dynamic discipline, but may not have advanced mathematical training, this book is a valuable resource on a topic of growing importance.

Ephasizing conceptual understanding over mathematics, this user-friendly text introduces linear regression analysis to students and researchers across the social, behavioral, consumer, and health sciences. Coverage includes model construction and estimation, quantification and measurement of multivariate and partial associations, statistical control, group comparisons, moderation analysis, mediation and path analysis, and regression diagnostics, among other important topics. Engaging worked-through examples demonstrate each technique, accompanied by helpful advice and cautions. The use of SPSS, SAS, and STATA is emphasized, with an appendix on regression analysis using R. The companion website (www.afhayes.com) provides datasets for the book's examples as well as the RLM macro for SPSS and SAS. Pedagogical Features: *Chapters include SPSS, SAS, or STATA code pertinent to the analyses described, with each distinctively formatted for easy identification. *An appendix documents the RLM macro, which facilitates computations for estimating and probing interactions, dominance analysis, heteroscedasticity-consistent standard errors, and linear spline regression, among other analyses. *Students are guided to practice what they learn in each chapter using datasets provided online. *Addresses topics not usually covered, such as ways to measure a variable?s importance, coding systems for representing categorical variables, causation, and myths about testing interaction.

Explanatory Model Analysis Explore, Explain and Examine Predictive Models is a set of methods and tools designed to build better predictive models and to monitor their behaviour in a changing environment. Today, the true bottleneck in predictive modelling is neither the lack of data, nor the lack of computational power, nor inadequate algorithms, nor the lack of flexible models. It is the lack of tools for model exploration (extraction of relationships learned by the model), model explanation (understanding the key factors influencing model decisions) and model examination (identification of model weaknesses and evaluation of model's performance). This book presents a collection of model agnostic methods that may be used for any black-box model together with real-world applications to classification and regression problems.

This book demonstrates how to estimate and interpret fixed-effects models in a variety of different modeling contexts: linear models, logistic models, Poisson models, Cox

regression models, and structural equation models. Both advantages and disadvantages of fixed-effects models will be considered, along with detailed comparisons with random-effects models. Written at a level appropriate for anyone who has taken a year of statistics, the book is appropriate as a supplement for graduate courses in regression or linear regression as well as an aid to researchers who have repeated measures or cross-sectional data. Learn more about "The Little Green Book" - QASS Series! Click Here
Provides an introduction to Stata with an emphasis on data management, linear regression, logistic modeling, and using programs to automate repetitive tasks. This book gives an introduction to the Stata interface and then proceeds with a discussion of Stata syntax and simple programming tools like for each loops.
Social science and behavioral science students and researchers are often confronted with data that are categorical, count a phenomenon, or have been collected over time. Sociologists examining the likelihood of interracial marriage, political scientists studying voting behavior, criminologists counting the number of offenses people commit, health scientists studying the number of suicides across neighborhoods, and psychologists modeling mental health treatment success are all interested in outcomes that are not continuous. Instead, they must measure and analyze these events and phenomena in a discrete manner. This book provides an introduction and overview of several statistical models designed for these types of outcomes—all presented with the assumption that the reader has only a good working knowledge of elementary algebra and has taken introductory statistics and linear regression analysis. Numerous examples from the social sciences demonstrate the practical applications of these models. The chapters address logistic and probit models, including those designed for ordinal and nominal variables, regular and zero-inflated Poisson and negative binomial models, event history models, models for longitudinal data, multilevel models, and data reduction techniques such as principal components and factor analysis. Each chapter discusses how to utilize the models and test their assumptions with the statistical software Stata, and also includes exercise sets so readers can practice using these techniques. Appendices show how to estimate the models in SAS, SPSS, and R; provide a review of regression assumptions using simulations; and discuss missing data. A companion website includes downloadable versions of all the data sets used in the book.
The linear regression model is the most commonly used statistical method in the social sciences. This book considers regression models that are appropriate when the dependent variable is censored, truncated, binary, ordinal, nominal, or count. I refer to these variables as categorical and limited dependent variables (hereafter CLDVs). Until recently, the greatest obstacle in using models for CLDVs was the lack of software that was flexible, stable, and easy to use. This limitation no longer applies since these models can be estimated routinely with standard software. Now, the greatest impediment is the complexity of the models and the difficulty in interpreting the results. The difficulties arise because most models for CLDVs are nonlinear.
Categorical data arise often in many fields, including biometrics, economics, management, manufacturing, marketing, psychology, and sociology. This book provides an introduction to the analysis of such data. The coverage is broad, using the loglinear Poisson regression model and logistic binomial regression models as the primary engines for methodology. Topics covered include count regression models, such as Poisson, negative binomial, zero-inflated, and zero-truncated models; loglinear models for two-dimensional and multidimensional contingency tables, including for square tables and tables with ordered categories; and regression models for two-category (binary) and multiple-category target variables, such as logistic and proportional odds models. All methods are illustrated with analyses of real data examples, many from recent subject area journal articles. These analyses are highlighted in the text, and are more detailed than is typical, providing discussion of the context and background of the problem, model checking, and scientific implications. More than 200 exercises are provided, many also based on recent subject area literature. Data sets and computer code are available at a web site devoted to the text. Adopters of this book may request a solutions manual from: textbook@springer-ny.com. From the reviews: "Jeff Simonoff's book is at the top of the heap of categorical data analysis textbooks...The examples are superb. Student reactions in a class I taught from this text were uniformly positive, particularly because of the examples and exercises. Additional materials related to the book, particularly code for S-Plus, SAS, and R, useful for analysis of examples, can be found at the author's Web site at New York University. I liked this book for this reason, and recommend it to you for pedagogical purposes." (Stanley Wasserman, The American Statistician, August 2006, Vol. 60, No. 3) "The book has various noteworthy features. The examples used are from a variety of topics, including medicine, economics, sports, mining, weather, as well as social aspects like needle-exchange programs. The examples motivate the theory and also illustrate nuances of data analytical procedures. The book also incorporates several newer methods for analyzing categorical data, including zero-inflated Poisson models, robust analysis of binomial and poisson models, sandwich estimators, multinomial smoothing, ordinal agreement tables...this is definitely a good reference book for any researcher working with categorical data." Technometrics, May 2004 "This guide provides a practical approach to the appropriate analysis of categorical data and would be a suitable purchase for individuals with varying levels of statistical understanding." Paediatric and Perinatal Epidemiology, 2004, 18 "This book gives a fresh approach to the topic of categorical data analysis. The presentation of the statistical methods exploits the connection to regression modeling with a focus on practical features rather than formal theory...There is much to learn from this book. Aside from the ordinary materials such as association diagrams, Mantel-Haenszel estimators, or overdispersion, the reader will also find some less-often presented but interesting and stimulating topics...[T]his is an excellent book, giving an up-to-date introduction to the wide field of analyzing categorical data." Biometrics, September 2004 "...It is of great help to data analysts, practitioners and researchers who deal with categorical data and need to get a necessary insight into the methods of analysis as well as practical guidelines for solving problems." International Journal of General Systems, August 2004 "The author has succeeded in writing a useful and readable textbook combining most of general theory and practice of count data." Kwantitatieve

Methoden "The book especially stresses how to analyze and interpret data...In fact, the highly detailed multi-page descriptions of analysis and interpretation make the book stand out." Mathematical Geology, February 2005 "Overall, this is a competent and detailed text that I would recommend to anyone dealing with the analysis of categorical data." Journal of the Royal Statistical Society "This important work allows for clear analogies between the well-known linear models for Gaussian data and categorical data problems. ... Jeffrey Simonoff's Analyzing Categorical Data provides an introduction to many of the important ideas and methods for understanding counted data and tables of counts. ... Some readers will find Simonoff's style very much to their liking due to reliance on extended real data examples to illuminate ideas. ... I think the extensive examples will appeal to most students." (Sanford Weisberg, SIAM Review, Vol. 47 (4), 2005) "It is clear that the focus of Simonoff's book is different from other books on categorical data analysis. ... As an introductory textbook, the book is comprehensive enough since all basic topics in categorical data analysis are discussed. ... I think Simonoff's book is a valuable addition to the literature because it discusses important models for counts ... ." (Jeroen K. Vermunt, Statistics in Medicine, Vol. 24, 2005) "The author based this book on his notes for a class with a very diverse pool of students. The material is presented in such a way that a very heterogeneous group of students could grasp it. All methods are illustrated with analyses of real data examples. The author provides a detailed discussion of the context and background of the problem. ... The book is very interesting and can be warmly recommended to people working with categorical data." (EMS - European Mathematical Society Newsletter, December, 2004) "Categorical data arise often in many fields ... . This book provides an introduction to the analysis of such data. ... All methods are illustrated with analyses of real data examples, many from recent subject-area journal articles. These analyses are highlighted in the text and are more detailed than is typical ... . More than 200 exercises are provided, including many based on recent subject-area literature. Data sets and computer code are available at a Web site devoted to this text." (T. Postelnicu, Zentralblatt MATH, Vol. 1028, 2003) "This book grew out of notes prepared by the author for classes in categorical data analysis. The presentation is fresh and compelling to read. Regression ideas are used to motivate the modelling presented. The book focuses on applying methods to real problems; many of these will be novel to readers of statistics texts ... . All chapters end with a section providing references to books or articles for the inquiring reader." (C.M. O'Brien, Short Book Reviews, Vol. 23 (3), 2003)