
Bryan L. Sykes
Sociological Methods & Research 2009 38: 351
DOI: 10.1177/0049124109346169

The online version of this article can be found at:
http://smr.sagepub.com/content/38/2/351.citation

Published by:
SAGE
http://www.sagepublications.com

Additional services and information for Sociological Methods & Research can be found at:

Email Alerts: http://smr.sagepub.com/cgi/alerts

Subscriptions: http://smr.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

>> Version of Record - Nov 6, 2009

What is This?
Although I am sympathetic to the general tenor of the book, I do have four complaints. These relate more to what is not in the book than what is and so should be taken with a grain of salt. The first is that the book would have benefited from more examples of good data analysis, under a variety of realistic conditions, or a single sustained example that runs throughout the book. Second, for a book that praises description so eloquently, more emphasis on the graphical display of information would have strengthened the book. Third, Bayesian methods are largely absent from the critique. Some of Berk’s criticisms hold here, too, but not all of them do. Fourth, algorithmic modeling is consistent with a good deal of the book’s thrust but is given only a couple of pages worth of attention. Fortunately, one can read Berk’s excellent article on ensemble methods, which was previously published in this journal (Berk 2006; cf. Breiman 2001) and his new book, Statistical Learning From a Regression Perspective (Berk 2008).

Berk has written a book worth having and reading carefully. Regression Analysis: A Constructive Critique forces us to think more precisely about our collective craft and about how the tools we use influence the stories we tell.

References

Bio
David Siroky is the Henry Hart Rice Foundation Fellow in the MacMillan Center at Yale University and can be reached at david.siroky@yale.edu or http://pantheon.yale.edu/~dss57/

Edited by Ross Stolzenberg

Reviewed by: Bryan L. Sykes, University of Washington, USA
DOI: 10.1177/0049124109346169

In his final year as editor of Sociological Methodology, Ross Stolzenberg leaves behind a legacy of compiling exceptional and groundbreaking
methodological papers of interest to quantitative and qualitative researchers. The 36th volume of the journal focuses on theoretical and empirical issues involving educational and income inequality, the estimation of age-period-cohort effects, effects displays for polytomous categorical response variables, exponential random graph models (p* models) for social networks, and fixed-effects methods for nonrepeated events. Also included are papers that present methods for minimizing sexual harassment, intimidation, and violence against interviewers engaged in fieldwork, as well as a new method for handling surveys with filter questions when the assumption of conditional independence fails in standard item response models. This edition contains 12 papers that have both a domestic and international focus, and the authors come from the United States, Australia, Canada, Finland, the United Kingdom, and the Netherlands.

The first section of the journal is dedicated to reviewing and renewing past findings. Hauser and Andrew revisit Mare’s (1979, 1980, 1981) seminal work on social background effects and educational transitions. Their contribution to the grade progressions literature not only validates Mare’s original findings but extends the methods that researchers can use in the analysis of transition models.

Hauser and Andrew use a modified logistic response model that constrains social background effects to vary proportionally across educational transitions. The striking feature of their method—the logistic response model with partial proportionality constraints (LRPPC)—allows for the estimation of all transitions within a single model, where a different multiplicative scalar for each transition proportionally alters the level and direction of the social background characteristic of interest. This new class of models is more parsimonious than its predecessors.

Mare responds to Hauser and Andrew’s paper by first reviewing identification issues in unrestricted and constrained binary response models and then shows that Hauser and Andrew’s class of models have very desirable properties that may not be shared by other restrictive transition models. However, Mare cautions researchers about using these models exclusively when other tools exist to explain the complexity of social background effects on educational transitions.

The next collection of papers presents new methods for cohort models, exponential graphs, event histories, cluster studies, and logit analyses. Yang and Land contribute two papers that focus on the identification and estimation of age-period-cohort components of change using hierarchical and mixed models. They apply their methods to an ongoing debate on whether the decline in verbal ability in the past three decades is largely due
to age, period, and/or cohort effects. These papers are important because the subject matter can easily be extrapolated to other demographic and sociological topics of interest without altering their proposed methodology.

In another paper, Snijders, Pattison, Robins, and Handcock make a significant addition to social networks methods by formulating new specifications of exponential random graph models (ERGMs), also known as p* models. Their three new specifications focus on using geometrically weighted degrees to illustrate degree heterogeneity; employing alternating \(k\)-triangles to represent transitivity; and making use of alternating independent two-paths to distill the necessary preconditions for transitive configurations. This is an exceptionally clear and detailed paper that will greatly benefit social network researchers.

Fixed-effects methods are used in the analysis of repeated events to control for all unobserved, stable covariates and characteristics. Yet, Allison and Christakis show how researchers can use fixed-effects methods for nonrepeated events with discrete-time data using the case-time-control method. By reversing the role of the independent and (dichotomous) dependent variables, this method allows for the control for time, unlike the case-crossover method that cannot handle covariates that are a monotonic function of time. Allison and Christakis’s major contribution is that the case-time-control method can be applied to data that contain only censored cases and that additional time-varying covariates (both categorical and continuous) can be included as controls in the model. Data on the mortality of elderly couples are used in the methodological examples.

For researchers interested in studying social, economic, and health inequality, Liao’s chapter on the limitations of the Gini index and his proposed solution—a model-based, latent class/clustering analysis—is a much-needed addition to the literature on measuring inequality. He shows that the Gini index measures individual inequality and may not adequately capture clustering aspects of individuals within a distribution. Liao’s latent class/clustering analysis identifies potential classes of individuals who share similar levels of income, thereby allowing the Gini index to be decomposed into the within and between class components of inequality. This is an excellent paper that should be read by inequality researchers.

Fox and Andersen extend Fox’s (1987, 2003) effects displays, a graphical summary of a statistical model based on higher order terms in the model. In this paper, their supplement to the literature focuses on polytomous categorical response variables (multinomial and proportional-odds models) that contain interactions and polynomials. Explaining interaction effects and the overall effect of polynomials on main effects is often difficult to grasp.
from tables, but their effects displays lessen the mental and statistical work that readers must undergo to come to conclusions. It is fortunate that Fox and Andersen provide detailed examples and $R$ software for constructing these effects displays.

Surveys that contain filter items—questions that require an affirmative response before encountering subsequent, nodal questions—violate the conditional independence assumption of standard item response models. In the third section of the journal, Reardon and Raudenbush address this issue and provide a generalized hybrid model (a combination of a discrete-time hazard model and a Rasch model) that imposes a weaker partial independence assumption. This is an extremely impressive model that takes the item response sequence and converts it into a person-item gate matrix in order to fit the partially conditional item-response model.

While space limitations do not permit a detailed discussion of all papers, several are worth mentioning. For analyses of clustered ordinal data, Jokinen, McDonald, and Smith combine a marginal regression model with a model for an association structure, showing that the association structure within a cluster may be of interest to the researcher; Hofferth assesses response bias in reading and achievement scores; and Sharp and Kramer discuss safety methods for fieldworkers when they encounter hostile and violent survey participants, especially when there is a gender difference between the interviewer and the respondent.

Each of these papers makes an exceptional contribution to methods for sociological research. This edition of Sociological Methodology extends topics that are of wide interest to sociologists, demographers, and other social science practitioners.