

New from Robert B. Smith

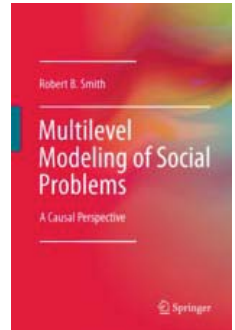
MULTILEVEL MODELING OF SOCIAL PROBLEMS: A CAUSAL PERSPECTIVE

Societal problems are complex, intractable, and costly. This book confronts these constraints by defining this five-step process: Analyze the roots of the social problem both theoretically and empirically; formulate a study design that captures the nuances of the problem; gather empirical data providing valid and repeatable measures; model the multilevel data using appropriate multilevel statistical methods to uncover potential causes and any biases to their implied effects; and finally, use the results to refine theory and to formulate evidence-based policy recommendations for implementation and testing.

The core chapters apply this process to ameliorate societal problems bearing on social and economic development: political extremism; global human development; violence against religious minorities; computerizations of work; reform of urban schools; health care utilization and costs; and parental reluctance to vaccinate children. These chapters address the multilevel data structures of the social problems by grouping observations on micro units (level-1) by more macro units (level-2) (e.g., professors are grouped by their university), and by presenting multilevel (i.e., hierarchical) statistical modeling in contextual, longitudinal, and meta-analyses. These chapters apply qualitative typologies that may explain the differences between the macro units, thereby crafting a “mixed-methods” approach that combines qualitative attributes with quantitative measures. The parts of the book focus on: (1) notions of causality; (2) in contextual studies, the multiple causes of an effect; (3) in evaluative research, the multiple effects of a cause; and (4) in research summaries and empirical studies, assessments of putative causal relationships.

What is New?

This book uniquely focuses on the intersection of social problems, multilevel modeling, and causality. By applying multilevel modeling to hierarchical data structures, this book illustrates how the use of these methods can improve the study of social problems. It gives the reader access to data sets, computer code, and analytic techniques (that can be downloaded from extras.springer.com), while at the same time carefully discussing issues of causality in such models.



This book innovatively:

- Develops procedures for studying social, economic, and human development.
- Uses typologies to group (i.e., classify or nest) the level of random macro-level factors.
- Estimates models with Poisson, binomial, and Gaussian response distributions using SAS's generalized linear mixed models (GLIMMIX) procedure.
- Selects appropriate covariance structures for generalized linear mixed models.
- Applies difference-in-differences study designs in the multilevel modeling of intervention studies.
- Calculates propensity scores by applying Firth logistic regression to Goldberger-corrected data.
- Uses the Kenward-Roger correction in mixed models of repeated measures.
- Explicates differences between associational and causal analysis of multilevel models.
- Consolidates research findings via meta-analysis and methodological critique.
- Develops criteria for assessing a study's validity and zone of causality.

Mathematical sociologists, policy researchers, methodologists, and applied statisticians in the social sciences (specifically, sociology, social psychology, political science, educational research, and health services research) will find this book of great interest because of its social problems focus, clarity of exposition, and use of state-of-the-art procedures. It can be used as a primary text in courses on multilevel modeling or as a primer for more advanced texts.

<http://www.springer.com/978-90-481-9854-2>

Multilevel Modeling of Social Problems

A Causal Perspective

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