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Titolo	Applied Bayesian modeling and causal inference from incomplete-data perspectives [[electronic resource]] : an essential journey with Donald Rubin's statistical family // edited by Andrew Gelman, Xiao-Li Meng
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Descrizione fisica	1 online resource (437 p.)
Collana	Wiley series in probability and statistics
Altri autori (Persone)	RubinDonald B GelmanAndrew MengXiao-Li
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Soggetti	Bayesian statistical decision theory Missing observations (Statistics)
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 361-400) and index.
Nota di contenuto	Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives; Contents; Preface; I Casual inference and observational studies; 1 An overview of methods for causal inference from observational studies; 1.1 Introduction; 1.2 Approaches based on causal models; 1.3 Canonical inference; 1.4 Methodologic modeling; 1.5 Conclusion; 2 Matching in observational studies; 2.1 The role of matching in observational studies; 2.2 Why match?; 2.3 Two key issues: balance and structure; 2.4 Additional issues; 3 Estimating causal effects in nonexperimental studies; 3.1 Introduction 3.2 Identifying and estimating the average treatment effect3.3 The NSW data; 3.4 Propensity score estimates; 3.5 Conclusions; 4 Medication cost sharing and drug spending in Medicare; 4.1 Methods; 4.2 Results; 4.3 Study limitations; 4.4 Conclusions and policy implications; 5 A comparison of experimental and observational data analyses; 5.1 Experimental sample; 5.2 Constructed observational study; 5.3

Concluding remarks; 6 Fixing broken experiments using the propensity score; 6.1 Introduction; 6.2 The lottery data; 6.3 Estimating the propensity scores; 6.4 Results; 6.5 Concluding remarks
7 The propensity score with continuous treatments 7.1 Introduction; 7.2 The basic framework; 7.3 Bias removal using the GPS; 7.4 Estimation and inference; 7.5 Application: the Imbens-Rubin-Sacerdote lottery sample; 7.6 Conclusion; 8 Causal inference with instrumental variables; 8.1 Introduction; 8.2 Key assumptions for the LATE interpretation of the IV estimand; 8.3 Estimating causal effects with IV; 8.4 Some recent applications; 8.5 Discussion; 9 Principal stratification; 9.1 Introduction: partially controlled studies; 9.2 Examples of partially controlled studies; 9.3 Principal stratification
9.4 Estimands 9.5 Assumptions; 9.6 Designs and polydesigns; II Missing data modeling; 10 Nonresponse adjustment in government statistical agencies: constraints, inferential goals, and robustness issues; 10.1 Introduction: a wide spectrum of nonresponse adjustment efforts in government statistical agencies; 10.2 Constraints; 10.3 Complex estimand structures, inferential goals, and utility functions; 10.4 Robustness; 10.5 Closing remarks; 11 Bridging across changes in classification systems; 11.1 Introduction; 11.2 Multiple imputation to achieve comparability of industry and occupation codes
11.3 Bridging the transition from single-race reporting to multiple-race reporting 11.4 Conclusion; 12 Representing the Census undercount by multiple imputation of households; 12.1 Introduction; 12.2 Models; 12.3 Inference; 12.4 Simulation evaluations; 12.5 Conclusion; 13 Statistical disclosure techniques based on multiple imputation; 13.1 Introduction; 13.2 Full synthesis; 13.3 SMiKe and MiKe; 13.4 Analysis of synthetic samples; 13.5 An application; 13.6 Conclusions; 14 Designs producing balanced missing data: examples from the National Assessment of Educational Progress; 14.1 Introduction
14.2 Statistical methods in NAEP

Sommario/riassunto

This book brings together a collection of articles on statistical methods relating to missing data analysis, including multiple imputation, propensity scores, instrumental variables, and Bayesian inference. Covering new research topics and real-world examples which do not feature in many standard texts. The book is dedicated to Professor Don Rubin (Harvard). Don Rubin has made fundamental contributions to the study of missing data. Key features of the book include: Comprehensive coverage of an important area for both research and applications. Adopts a pragmatic approach to describ
