

1. Record Nr.	UNINA9910817472203321
Autore	Waal Ton de
Titolo	Handbook of statistical data editing and imputation / / Ton de Waal, Jeroen Pannekoek, Sander Scholtus
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2011
ISBN	1-283-05228-8 9786613052285 0-470-90484-4 0-470-90483-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xi, 439 pages) : illustrations
Collana	Wiley handbooks in survey methodology
Altri autori (Persone)	PannekoekJeroen <1951-> ScholtusSander <1983->
Disciplina	001.4/22
Soggetti	Statistics - Standards Data editing Data integrity Quality control Statistical services - Evaluation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Handbook of Statistical Data Editing and Imputation; Contents; PREFACE; 1 INTRODUCTION TO STATISTICAL DATA EDITING AND IMPUTATION; 1.1 Introduction; 1.2 Statistical Data Editing and Imputation in the Statistical Process; 1.3 Data, Errors, Missing Data, and Edits; 1.4 Basic Methods for Statistical Data Editing and Imputation; 1.5 An Edit and Imputation Strategy; References; 2 METHODS FOR DEDUCTIVE CORRECTION; 2.1 Introduction; 2.2 Theory and Applications; 2.3 Examples; 2.4 Summary; References; 3 AUTOMATIC EDITING OF CONTINUOUS DATA; 3.1 Introduction 3.2 Automatic Error Localization of Random Errors 3.3 Aspects of the Fellegi-Holt Paradigm; 3.4 Algorithms Based on the Fellegi-Holt Paradigm; 3.5 Summary; 3.A Appendix: Chernikova's Algorithm; References; 4 AUTOMATIC EDITING: EXTENSIONS TO CATEGORICAL DATA; 4.1 Introduction; 4.2 The Error Localization Problem for Mixed Data; 4.3 The Fellegi-Holt Approach; 4.4 A Branch-and-Bound

Algorithm for Automatic Editing of Mixed Data; 4.5 The Nearest-Neighbor Imputation Methodology; References; 5 AUTOMATIC EDITING: EXTENSIONS TO INTEGER DATA; 5.1 Introduction
5.2 An Illustration of the Error Localization Problem for Integer Data 5.3 Fourier-Motzkin Elimination in Integer Data; 5.4 Error Localization in Categorical, Continuous, and Integer Data; 5.5 A Heuristic Procedure; 5.6 Computational Results; 5.7 Discussion; References; 6 SELECTIVE EDITING; 6.1 Introduction; 6.2 Historical Notes; 6.3 Micro-selection: The Score Function Approach; 6.4 Selection at the Macro-level; 6.5 Interactive Editing; 6.6 Summary and Conclusions; References; 7 IMPUTATION; 7.1 Introduction; 7.2 General Issues in Applying Imputation Methods; 7.3 Regression Imputation
7.4 Ratio Imputation 7.5 (Group) Mean Imputation; 7.6 Hot Deck Donor Imputation; 7.7 A General Imputation Model; 7.8 Imputation of Longitudinal Data; 7.9 Approaches to Variance Estimation with Imputed Data; 7.10 Fractional Imputation; References; 8 MULTIVARIATE IMPUTATION; 8.1 Introduction; 8.2 Multivariate Imputation Models; 8.3 Maximum Likelihood Estimation in the Presence of Missing Data; 8.4 Example: The Public Libraries; References; 9 IMPUTATION UNDER EDIT CONSTRAINTS; 9.1 Introduction; 9.2 Deductive Imputation; 9.3 The Ratio Hot Deck Method; 9.4 Imputing from a Dirichlet Distribution
9.5 Imputing from a Singular Normal Distribution 9.6 An Imputation Approach Based on Fourier-Motzkin Elimination; 9.7 A Sequential Regression Approach; 9.8 Calibrated Imputation of Numerical Data Under Linear Edit Restrictions; 9.9 Calibrated Hot Deck Imputation Subject to Edit Restrictions; References; 10 ADJUSTMENT OF IMPUTED DATA; 10.1 Introduction; 10.2 Adjustment of Numerical Variables; 10.3 Adjustment of Mixed Continuous and Categorical Data; References; 11 PRACTICAL APPLICATIONS; 11.1 Introduction; 11.2 Automatic Editing of Environmental Costs
11.3 The EUREDIT Project: An Evaluation Study

Sommario/riassunto

A practical, one-stop reference on the theory and applications of statistical data editing and imputation techniques. Collected survey data are vulnerable to error. In particular, the data collection stage is a potential source of errors and missing values. As a result, the important role of statistical data editing, and the amount of resources involved, has motivated considerable research efforts to enhance the efficiency and effectiveness of this process.
