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Autore	Waal Ton de
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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.