

Contents

Introduction	ix
Part I Data Quality Defined	1
Chapter 1 Introductory Case Studies	3
Chapter 2 Definition and Scope of Data Quality for Analytics.....	21
Chapter 3 Data Availability	31
Chapter 4 Data Quantity	47
Chapter 5 Data Completeness	59
Chapter 6 Data Correctness	71
Chapter 7 Predictive Modeling	83
Chapter 8 Analytics for Data Quality.....	95
Chapter 9 Process Considerations for Data Quality	107
Part II Data Quality—Profiling and Improvement.....	121
Chapter 10 Profiling and Imputation of Missing Values	123
Chapter 11 Profiling and Replacement of Missing Data in a Time Series.....	141
Chapter 12 Data Quality Control across Related Tables.....	159
Chapter 13 Data Quality with Analytics	167
Chapter 14 Data Quality Profiling and Improvement with SAS Analytic Tools	181
Part III Consequences of Poor Data Quality—Simulation Studies .	199
Chapter 15 Introduction to Simulation Studies	201
Chapter 16 Simulating the Consequences of Poor Data Quality for Predictive Modeling.....	207
Chapter 17 Influence of Data Quality and Data Availability on Model Quality in Predictive Modeling.....	219
Chapter 18 Influence of Data Completeness on Model Quality in Predictive Modeling.....	231
Chapter 19 Influence of Data Correctness on Model Quality in Predictive Modeling.....	243

Chapter 20 Simulating the Consequences of Poor Data Quality in Time Series Forecasting	255
Chapter 21 Consequences of Data Quantity and Data Completeness in Time Series Forecasting	265
Chapter 22 Consequences of Random Disturbances in Time Series Data	273
Chapter 23 Consequences of Systematic Disturbances in Time Series Data	281
Appendix A: Macro Code	289
Appendix B: General SAS Content and Programs	301
Appendix C: Using SAS Enterprise Miner for Simulation Studies	305
Appendix D: Macro to Determine the Optimal Length of the Available Data History	311
Appendix E: A Short Overview on Data Structures and Analytic Data Preparation	319
References.....	327
Index.....	329