## Contents

1  **Introduction** ................................................................. 1  
   *Alex R. Piquero and David Weisburd*

**Part I-A  Descriptive Approaches for Research and Policy: Innovative Descriptive Methods for Crime and Justice Problems**

2  **Crime Mapping: Spatial and Temporal Challenges** .............. 5  
   *Jerry Ratcliffe*

3  **Look Before You Analyze: Visualizing Data in Criminal Justice** .............. 25  
   *Michael D. Maltz*

4  **Group-Based Trajectory Modeling: An Overview** ................. 53  
   *Daniel S. Nagin*

5  **General Growth Mixture Analysis with Antecedents and Consequences of Change** ........................................ 69  
   *Hanno Petras and Katherine Masyn*

6  **Spatial Regression Models in Criminology: Modeling Social Processes in the Spatial Weights Matrix** ........................................ 101  
   *George E. Tita and Steven M. Radil*

7  **Mixed Method Research in Criminology: Why Not Go Both Ways?** .......... 123  
   *Shadd Maruna*


8  **Estimating Costs of Crime** .................................................. 143  
   *Mark A. Cohen and Roger Bowles*
9 Estimating Treatment Effects: Matching Quantification to the Question ................................................................. 163
  Thomas A. Loughran and Edward P. Mulvey

10 Meta-analysis ................................................................................................................................. 181
  David B. Wilson

11 Social Network Analysis ........................................................................................................... 209
  Jean Marie McGloin and David S. Kirk

12 Systematic Social Observation in Criminology ........................................................................... 225
  Stephen D. Mastrofski, Roger B. Parks, and John D. McCluskey

Part II New Directions in Assessing Design, Measurement and Data Quality

13 Identifying and Addressing Response Errors in Self-Report Surveys .................................. 251
  James P. Lynch and Lynn A. Addington

14 Missing Data Problems in Criminological Research ............................................................... 273
  Robert Brame, Michael G. Turner, and Ray Paternoster

15 The Life Event Calendar Method in Criminological Research ............................................. 289
  Jennifer Roberts and Julie Horney

16 Statistical Power ......................................................................................................................... 313
  Chester L. Britt and David Weisburd

17 Descriptive Validity and Transparent Reporting in Randomised Controlled Trials ................. 333
  Amanda E. Perry

18 Measurement Error in Criminal Justice Data ............................................................................... 353
  John Pepper, Carol Petrie, and Sean Sullivan

19 Statistical Models of Life Events and Criminal Behavior ....................................................... 375
  D. Wayne Osgood

Part III-A Estimation of Impacts and Outcomes of Crime and Justice: Topics in Experimental Methods

20 An Introduction to Experimental Criminology ................................................................. 399
  Lawrence W. Sherman

21 Randomized Block Designs ...................................................................................................... 437
  Barak Ariel and David P. Farrington

22 Construct Validity: The Importance of Understanding the Nature of the Intervention Under Study ................................................................. 455
  John S. Goldkamp
23 Place Randomized Trials .............................................................. 481  
Robert Boruch, David Weisburd, and Richard Berk

24 Longitudinal-Experimental Studies .................................................. 503  
David P. Farrington, Rolf Loeber, and Brandon C. Welsh

25 Multisite Trials in Criminal Justice Settings: Trials and Tribulations of Field Experiments ............................................... 519  
Faye S. Taxman and Anne Giuranna Rhodes

Part III-B Estimation of Impacts and Outcomes of Crime and Justice: Innovation in Quasi-Experimental Design

26 Propensity Score Matching in Criminology and Criminal Justice ................ 543  
Robert J. Apel and Gary Sweeten

27 Recent Perspectives on the Regression Discontinuity Design .................... 563  
Richard Berk

28 Testing Theories of Criminal Decision Making: Some Empirical Questions about Hypothetical Scenarios ............................................. 581  
M. Lyn Exum and Jeffrey A. Bouffard

29 Instrumental Variables in Criminology and Criminal Justice .................... 595  
Shawn D. Bushway and Robert J. Apel

Part III-C Estimation of Impacts and Outcomes of Crime and Justice: Non-Experimental Approaches to Explaining Crime and Justice Outcomes

30 Multilevel Analysis in the Study of Crime and Justice ..................................... 615  
Brian D. Johnson

31 Logistic Regression Models for Categorical Outcome Variables .................. 649  
Chester L. Britt and David Weisburd

32 Count Models in Criminology ............................................................. 683  
John M. MacDonald and Pamela K. Lattimore

33 Statistical Analysis of Spatial Crime Data ........................................ 699  
Wim Bernasco and Henk Elffers

34 An Introduction to Statistical Learning from a Regression Perspective .................................................. 725  
Richard Berk

35 Estimating Effects over Time for Single and Multiple Units ...................... 741  
Laura Dugan

Index ........................................................................................... 765
Handbook of Quantitative Criminology
Piquero, A.R.; Weisburd, D. (Eds.)
2010, XIII, 787 p. 94 illus., Hardcover
ISBN: 978-0-387-77649-1