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
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Estimating Treatment Effects: Matching Quantification to the Question</td>
<td>Thomas A. Loughran and Edward P. Mulvey</td>
<td>163</td>
</tr>
<tr>
<td>10</td>
<td>Meta-analysis</td>
<td>David B. Wilson</td>
<td>181</td>
</tr>
<tr>
<td>11</td>
<td>Social Network Analysis</td>
<td>Jean Marie McGloin and David S. Kirk</td>
<td>209</td>
</tr>
<tr>
<td>12</td>
<td>Systematic Social Observation in Criminology</td>
<td>Stephen D. Mastrofski, Roger B. Parks, and John D. McCluskey</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td><strong>Part II</strong> New Directions in Assessing Design, Measurement and Data Quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Identifying and Addressing Response Errors in Self-Report Surveys</td>
<td>James P. Lynch and Lynn A. Addington</td>
<td>251</td>
</tr>
<tr>
<td>14</td>
<td>Missing Data Problems in Criminological Research</td>
<td>Robert Brame, Michael G. Turner, and Ray Paternoster</td>
<td>273</td>
</tr>
<tr>
<td>15</td>
<td>The Life Event Calendar Method in Criminological Research</td>
<td>Jennifer Roberts and Julie Horney</td>
<td>289</td>
</tr>
<tr>
<td>16</td>
<td>Statistical Power</td>
<td>Chester L. Britt and David Weisburd</td>
<td>313</td>
</tr>
<tr>
<td>17</td>
<td>Descriptive Validity and Transparent Reporting in Randomised Controlled Trials</td>
<td>Amanda E. Perry</td>
<td>333</td>
</tr>
<tr>
<td>18</td>
<td>Measurement Error in Criminal Justice Data</td>
<td>John Pepper, Carol Petrie, and Sean Sullivan</td>
<td>353</td>
</tr>
<tr>
<td>19</td>
<td>Statistical Models of Life Events and Criminal Behavior</td>
<td>D. Wayne Osgood</td>
<td>375</td>
</tr>
<tr>
<td></td>
<td><strong>Part III-A</strong> Estimation of Impacts and Outcomes of Crime and Justice:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Topics in Experimental Methods</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>An Introduction to Experimental Criminology</td>
<td>Lawrence W. Sherman</td>
<td>399</td>
</tr>
<tr>
<td>21</td>
<td>Randomized Block Designs</td>
<td>Barak Ariel and David P. Farrington</td>
<td>437</td>
</tr>
<tr>
<td>22</td>
<td>Construct Validity: The Importance of Understanding the Nature of the Intervention Under Study</td>
<td>John S. Goldkamp</td>
<td>455</td>
</tr>
</tbody>
</table>
Contents ix

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