

BRIEF CONTENTS

<i>Why Use This Book</i>	<i>page</i> xxi
<i>Simplified Notation</i>	xxiv
<i>Acknowledgments</i>	xxv
I DATA EXPLORATION	1
1 Origins of Data	3
2 Preparing Data for Analysis	30
3 Exploratory Data Analysis	58
4 Comparison and Correlation	96
5 Generalizing from Data	118
6 Testing Hypotheses	143
II REGRESSION ANALYSIS	169
7 Simple Regression	171
8 Complicated Patterns and Messy Data	200
9 Generalizing Results of a Regression	236
10 Multiple Linear Regression	266
11 Modeling Probabilities	297
12 Regression with Time Series Data	329
III PREDICTION	363
13 A Framework for Prediction	365
14 Model Building for Prediction	391
15 Regression Trees	417
16 Random Forest and Boosting	438

vi Brief Contents

17	Probability Prediction and Classification	457
18	Forecasting from Time Series Data	487
IV	CAUSAL ANALYSIS	517
19	A Framework for Causal Analysis	519
20	Designing and Analyzing Experiments	555
21	Regression and Matching with Observational Data	588
22	Difference-in-Differences	620
23	Methods for Panel Data	649
24	Appropriate Control Groups for Panel Data	681
	<i>References</i>	704
	<i>Index</i>	709