

# BRIEF CONTENTS

## **Preface xvi**

### **1 Introduction to Business Analytics 1**

## **PART 1 Data Analysis 37**

### **2 Describing the Distribution of a Variable 38**

### **3 Finding Relationships among Variables 84**

### **4 Business Intelligence (BI) Tools for Data Analysis 132**

## **PART 2 Probability and Decision Making under Uncertainty 183**

### **5 Probability and Probability Distributions 184**

### **6 Decision Making under Uncertainty 242**

## **PART 3 Statistical Inference 293**

### **7 Sampling and Sampling Distributions 294**

### **8 Confidence Interval Estimation 323**

### **9 Hypothesis Testing 368**

## **PART 4 Regression Analysis and Time Series Forecasting 411**

### **10 Regression Analysis: Estimating Relationships 412**

### **11 Regression Analysis: Statistical Inference 472**

### **12 Time Series Analysis and Forecasting 523**

## **PART 5 Optimization and Simulation Modeling 575**

### **13 Introduction to Optimization Modeling 576**

### **14 Optimization Models 630**

### **15 Introduction to Simulation Modeling 717**

### **16 Simulation Models 779**

## **PART 6 Advanced Data Analysis 837**

### **17 Data Mining 838**

### **18 Analysis of Variance and Experimental Design (MindTap Reader only)**

### **19 Statistical Process Control (MindTap Reader only)**

### **APPENDIX A: Quantitative Reporting (MindTap Reader only)**

## **References 873**

## **Index 875**