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Nota di contenuto	Intro -- Preface -- Contents -- Chapter 1: Research Methods and the Planning Process -- The Planning Process -- Research Methods and the Planning Process -- Smart Cities, Machine Learning, and the Future of Urban Analytics -- Structure of the Book -- References -- Web Resources -- Chapter 2: Identifying the Research Problem -- Research Problems Identified from Sub-disciplines of Planning -- Literature Search for Research Questions -- Research Questions Identified from Data -- Research Questions Identified Through Other Sources -- References -- Web Resources -- Chapter 3: Research Design -- Project Statement -- Literature Review -- Sources of Literature -- Systematic Quantitative Literature Review -- Writing a Narrative Literature Review -- Theorizing the Key Concepts -- Citation Formats -- Research Methodology -- Research Ethics -- References -- Chapter 4: Data Collection -- Data and Variables -- Variables -- Observations -- Census Data Versus Sample Data -- Sampling Techniques -- Probability Sampling -- Non-probability Sampling -- Data Sources -- Secondary Data Sources -- Primary Data

Sources -- Surveys -- Field Observations -- Experimental Design -- Public Forums and Focus Groups -- Data Collection Through Social Media, Remote Sensing, Real-Time Tracking, and Other Technologies -- References -- Web Resources -- Chapter 5: Data Presentation -- Data, Information, and Geographic Information -- Information and Planning -- Data Presentation -- Audiences -- Table, Graph, and Map -- Ten Rules for an Effective Data Presentation -- Planning Ethics -- References -- Chapter 6: Communicating the Research Findings -- Effective Communication -- Plan the Communication -- Technical Writing Skills -- Types of Communication Conduit -- Emails -- Memorandum -- Staff Report -- Research Papers -- Research or Planning Reports -- Infographics -- Proofreading. PowerPoint Presentation -- Public Speaking Skills -- Engaging the Audience -- Facilitation Skills -- Storytelling Skills -- References -- Chapter 7: Statistical Analysis -- Summary Statistics -- Measures of Location -- Frequency Table -- Measures of Dispersion -- Probability -- Basic Concepts -- Relations Between Events and Facts of Probabilities -- Assigning Probabilities -- Using Probability for Planning Issues -- Probability Distributions -- Random Variable and Probability Distribution -- Expected Value -- Probability Mass Function -- Probability Density Function -- The Central Limit Theorem -- Confidence Interval -- Hypothesis Test -- General Steps of a Hypothesis Test -- One Sample z-Test of Population Mean -- One Sample t-Test for Population Mean -- Two Sample t-Test for Difference -- Two-Sample t-Test -- Type I Vs. Type II Error -- The Simple Linear Regression -- Dependent Vs. Independent Variable -- The Concept of Correlation -- Simple Linear Regression -- Regression Analysis in Excel -- Spatial Statistics -- Appendix 1: Standard Normal Distribution -- Appendix 2: T-Distribution -- References -- Chapter 8: Qualitative Data Analysis -- Discovering Patterns in Qualitative Data -- Frequencies -- Magnitude -- Structure -- Processes -- Causes and Consequences -- Types of Qualitative Data -- Observations and Ethnographic Data -- Interview Data -- Focus Groups or Design Charrette -- Documents and Artifacts -- Analyzing Qualitative Data -- Cross-Case Analysis -- Grounded Theory Method -- Constant Comparative Method -- Keywords-in-Context Analysis -- Conversation Analysis -- Word Count Analysis -- Classical Content Analysis -- Semiotics and Domain Analysis -- Taxonomic Analysis -- Componential Analysis -- Qualitative Data Processing -- Coding -- Memoing -- Concept Mapping -- Common Software for Qualitative Data Analysis -- References.

Chapter 9: Demographic Analysis -- Demographic Data -- Resident-based Versus Employment-based Data -- The Decennial Census -- The American Community Survey -- Describing the Population -- Size -- Composition and Characteristics -- Population Changes -- Distribution -- Choosing a Benchmark -- Extrapolation Analysis -- Estimates Versus Projections -- Extrapolation Versus Interpolation -- Popular Growth Trends -- The Cohort-component Method -- Age Cohort -- The Mortality Component -- The Fertility Component -- The Migration Component -- Set Up a Cohort-Component Model -- Population Projection Quality Assessment -- References -- Chapter 10: Analyzing the Local Economy -- The Concept of Economy -- Economic Activity Classification -- U.S. Economic Data and Limitations -- Assessing an Economy -- The Economic Base Theory -- Basic vs. Non-basic Employment -- Base Multiplier -- Calculating Basic and Non-basic Employment - Quick Approaches -- Location Quotients -- Calculating Base Multiplier: The Location Quotient Approach -- Shift-Share Analysis -- Set Up a Shift-Share Analysis -- National Share -- Industry

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