Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

Contents

Preface	page xv
New to the Second Edition	XV
Guiding Principles Underlying Our Approach	xvi
Overview of Content Coverage and Intended Audience	xvii
Acknowledgments	xix
1 INTRODUCTION	1
The Role of Statistical Software in Data Analysis	1
Statistics: Descriptive and Inferential	2
Variables and Constants	3
The Measurement of Variables	3
Nominal Level	4
Ordinal Level	4
Interval Level	5
Ratio Level	6
Choosing a Scale of Measurement	6
Discrete and Continuous Variables	8
Setting a Context with Real Data	11
Exercises	14
2 EXAMINING UNIVARIATE DISTRIBUTIONS	26
Counting the Occurrence of Data Values	26
When Variables are Measured at the Nominal Level	26
Frequency and Percent Distribution Tables	27
Bar Charts	28
Pie Charts	31
When Variables are Measured at the Ordinal, Interval, or Ratio	
Frequency and Percent Distribution Tables	32
Stem-and-Leaf Displays	35
Histograms	38
Line Graphs	40
Describing the Shape of a Distribution	42
Accumulating Data	44
Cumulative Percent Distributions	44
Ogive Curves	45
Percentile Ranks	46
Percentiles	47
Five-Number Summaries and Boxplots	51
Modifying the Appearance of Graphs	56

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

	••	
VI	11	

CONTENTS

3

4

	-
Summary of Graphical Selection	56
Summary of Stata Commands	56
Exercises	58
MEASURES OF LOCATION, SPREAD, AND SKEWNESS	74
Characterizing the Location of a Distribution	74
The Mode	74
The Median	78
The Arithmetic Mean	80
Interpreting the Mean of a Dichotomous Variable	82
The Weighted Mean	83
Comparing the Mode, Median, and Mean	84
Characterizing the Spread of a Distribution	86
The Range and Interquartile Range	89
The Variance	91
The Standard Deviation	93
Characterizing the Skewness of a Distribution	95
Selecting Measures of Location and Spread	99
Applying What We Have Learned	99
Summary of Stata Commands	104
Helpful Hints When Using Stata	105
Online Resources	106
The Stata Command	106
Stata Tips	108
Exercises	109
RE-EXPRESSING VARIABLES	118
Linear and Nonlinear Transformations	118
Linear Transformations: Addition, Subtraction, Multiplication, and	110
Division	119
The Effect on the Shape of a Distribution	121
The Effect on Summary Statistics of a Distribution	121
Common Linear Transformations	124
Standard Scores	126
z-Scores	127
Using z-Scores to Detect Outliers	130
Using z-Scores to Compare Scores in Different Distributions	133
Relating z-Scores to Percentile Ranks	134
Nonlinear Transformations: Square Roots and Logarithms	135
Nonlinear Transformations: Ranking Variables	142
Other Transformations: Recoding and Combining Variables	144
Recoding Variables	144
Combining Variables	147
Data Management Fundamentals: The Do-File	147
Summary of Stata Commands	150
Exercises	151
EXPLORING RELATIONSHIPS BETWEEN TWO VARIABLES	159
When Both Variables are at Least Interval-Leveled	159
Scatterplots	139
Jeanerpiolo	100

5

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

	The Pearson Product-Moment Correlation Coefficient	166
	Interpreting the Pearson Correlation Coefficient	170
	Judging the Strength of the Linear Relationship	170
	The Correlation Scale Itself Is Ordinal	171
	Correlation Does Not Imply Causation	172
	The Effect of Linear Transformations	172
	Restriction of Range	173
	The Shape of the Underlying Distributions	174
	The Reliability of the Data	174
	When at Least One Variable Is Ordinal and the Other Is at Least Ordinal:	
	The Spearman Rank Correlation Coefficient	174
	When at Least One Variable Is Dichotomous: Other Special Cases of the	
	Pearson Correlation Coefficient	176
	The Point Biserial Correlation Coefficient: The Case of One at Least	
	Interval and One Dichotomous Variable	176
	The Phi Coefficient: The Case of Two Dichotomous Variables	181
	Other Visual Displays of Bivariate Relationships	185
	Selection of Appropriate Statistic or Graph to Summarize a Relationship	188
	Summary of Stata Commands	189
	Exercises	189
6	SIMPLE LINEAR REGRESSION	202
	The "Best-Fitting" Linear Equation	202
	The Accuracy of Prediction Using the Linear Regression Model	209
	The Standardized Regression Equation	210
	R As a Measure of the Overall Fit of the Linear Regression Model	210
	Simple Linear Regression When the Independent Variable Is	
	Dichotomous	214
	Using r and R As Measures of Effect Size	217
	Emphasizing the Importance of the Scatterplot	217
	Summary of Stata Commands	219
	Exercises	219
7	PROBABILITY FUNDAMENTALS	228
	The Discrete Case	228
	The Complement Rule of Probability	230
	The Additive Rules of Probability	231
	First Additive Rule of Probability	231
	Second Additive Rule of Probability	232
	The Multiplicative Rule of Probability	233
	The Relationship between Independence and Mutual Exclusivity	236
	Conditional Probability	236
	The Law of Total Probability	239
	Bayes' Theorem	239
	The Law of Large Numbers	240
	Exercises	240
8	THEORETICAL PROBABILITY MODELS	244
	The Binomial Probability Model and Distribution	244
	The Applicability of the Binomial Probability Model	249

х

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

	The Normal Probability Model and Distribution	254
	Using the Normal Distribution to Approximate the Binomial Distribution	260
	Summary of Stata Commands	260
	Exercises	261
9	THE ROLE OF SAMPLING IN INFERENTIAL STATISTICS	269
	Samples and Populations	269
	Random Samples	270
	Obtaining a Simple Random Sample	271
	Sampling with and without Replacement	273
	Sampling Distributions	275
	Describing the Sampling Distribution of Means Empirically	275
	Describing the Sampling Distribution of Means Theoretically	280
	The Central Limit Theorem	281
	Estimators and Bias	285
	Summary of Stata Commands	286
	Exercises	287
10	INFERENCES INVOLVING THE MEAN OF A SINGLE	
	POPULATION WHEN σ IS KNOWN	291
	Estimating the Population Mean, μ , When the Population Standard	
	Deviation, σ , Is Known	291
	Interval Estimation	293
	Relating the Length of a Confidence Interval, the Level of Confidence,	• • • •
	and the Sample Size	296
	Hypothesis Testing	296
	The Relationship between Hypothesis Testing and Interval Estimation	305
	Effect Size	306 307
	Type II Error and the Concept of Power	310
	Increasing the Level of Significance, α Increasing the Effect Size, δ	310
	Decreasing the Standard Error of the Mean, $\sigma_{\overline{x}}$	310
	Closing Remarks	312
	Summary of Stata Commands	312
	Exercises	313
11	INFERENCES INVOLVING THE MEAN WHEN σ IS NOT	
	KNOWN: ONE- AND TWO-SAMPLE DESIGNS	319
	Single Sample Designs When the Parameter of Interest Is the Mean	210
	and σ Is Not Known The <i>t</i> -Distribution	319
		320 321
	Degrees of Freedom for the One-Sample <i>t</i> -Test	521
	Violating the Assumption of a Normally Distributed Parent Population in the One-Sample <i>t</i> -Test	322
	Confidence Intervals for the One-Sample <i>t</i> -Test	323
	Hypothesis Tests: The One-Sample <i>t</i> -Test	323
	Effect Size for the One-Sample <i>t</i> -Test	333
	Two-Sample Designs When the Parameter of Interest Is μ , and σ Is Not	200
	Known	336
	Independent (or Unrelated) and Dependent (or Related) Samples	337

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

	Independent Samples t-Test and Confidence Interval	338
	The Assumptions of the Independent Samples <i>t</i> -Test	340
	Effect Size for the Independent Samples <i>t</i> -Test	349
	Paired Samples <i>t</i> -Test and Confidence Interval	353
	The Assumptions of the Paired Samples t-Test	354
	Effect Size for the Paired Samples <i>t</i> -Test	359
	The Bootstrap	360
	Conducting Power Analyses for t-Tests on Means	364
	Summary	369
	Summary of Stata Commands	372
	Exercises	374
12	RESEARCH DESIGN: INTRODUCTION AND OVERVIEW	391
	Questions and their Link to Descriptive, Relational, and Causal Research	
	Studies	391
	The Need for a Good Measure of our Construct: Weight	391
	The Descriptive Study	392
	From Descriptive to Relational Studies	393
	From Relational to Causal Studies	393
	The Gold Standard of Causal Studies: The True Experiment and Random	
	Assignment	395
	Comparing Two Kidney Stone Treatments Using a Non-Randomized	
	Controlled Study	396
	Including Blocking in a Research Design	397
	Underscoring the Importance of Having a True Control Group Using	
	Randomization	398
	Analytic Methods for Bolstering Claims of Causality from Observational	
	Data	402
	Quasi-Experimental Designs	404
	Threats to the Internal Validity of a Quasi-Experimental Design	404
	Threats to the External Validity of a Quasi-Experimental Design	405
	Threats to the Validity of a Study: Some Clarifications and Caveats	406
	Threats to the Validity of a Study: Some Examples	407
	Exercises	408
13	ONE-WAY ANALYSIS OF VARIANCE	412
	The Disadvantage of Multiple <i>t</i> -Tests	412
	The One-Way Analysis of Variance	414
	A Graphical Illustration of the Role of Variance in Tests on Means	414
	ANOVA As an Extension of the Independent Samples <i>t</i> -Test	416
	Developing an Index of Separation for the Analysis of Variance	416
	Carrying Out the ANOVA Computation	417
	The Between Group Variance (MS_B)	418
	The Within Group Variance (MS_W)	418
	The Assumptions of the One-Way ANOVA	419
	Testing the Equality of Population Means: The F-Ratio	420
	How to Read the Tables and Use Stata Functions for the F-Distribution	422
	ANOVA Summary Table	425
	Measuring the Effect Size	426
	Post-Hoc Multiple Comparison Tests	431
	1 1	

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

xii

	The Bonferroni Adjustment: Testing Planned Comparisons	444
	The Bonferroni Tests on Multiple Measures	446
	Conducting Power Analyses for One-Way ANOVA	447
	Summary of Stata Commands	450
	Exercises	451
14	TWO-WAY ANALYSIS OF VARIANCE	457
	The Two-Factor Design	457
	The Concept of Interaction	460
	The Hypotheses That are Tested by a Two-Way Analysis of Variance	465
	Assumptions of the Two-Way Analysis of Variance	466
	Balanced versus Unbalanced Factorial Designs	467
	Partitioning the Total Sum of Squares	468
	Using the F-Ratio to Test the Effects in Two-Way ANOVA	469
	Carrying Out the Two-Way ANOVA Computation by Hand	469
	Decomposing Score Deviations about the Grand Mean	474
	Modeling Each Score As a Sum of Component Parts	475
	Explaining the Interaction As a Joint (or Multiplicative) Effect	475
	Measuring Effect Size	476
	Fixed versus Random Factors	479 479
	Post-Hoc Multiple Comparison Tests Simple Effects and Pairwise Comparisons	479
	Summary of Steps to Be Taken in a Two-Way ANOVA Procedure	487
	Conducting Power Analyses for Two-Way ANOVA	491
	Summary of Stata Commands	493
	Exercises	495
1.5		
15	CORRELATION AND SIMPLE REGRESSION AS INFERENTIAL TECHNIQUES	503
	The Bivariate Normal Distribution	503
	Testing whether the Population Pearson Product-Moment Correlation Equals	505
	Zero	506
	Using a Confidence Interval to Estimate the Size of the Population Correlation	000
	Coefficient, ρ	509
	Revisiting Simple Linear Regression for Prediction	512
	Estimating the Population Standard Error of Prediction, $\sigma_{Y X}$	513
	Testing the <i>b</i> -Weight for Statistical Significance	514
	Explaining Simple Regression Using an Analysis of Variance Framework	518
	Measuring the Fit of the Overall Regression Equation: Using R and R^2	520
	Relating R^2 to $\sigma^2_{Y X}$	521
	Testing R^2 for Statistical Significance	522
	Estimating the True Population R^2 : The Adjusted R^2	523
	Exploring the Goodness of Fit of the Regression Equation: Using Regression	
	Diagnostics	524
	Residual Plots: Evaluating the Assumptions Underlying Regression	526
	Detecting Influential Observations: Discrepancy and Leverage	529
	Using Stata to Obtain Leverage	530
	Using Stata to Obtain Discrepancy	531
	Using Stata to Obtain Influence	531
	Using Diagnostics to Evaluate the Ice Cream Sales Example	533

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

Using the Prediction Model to Predict Ice Cream Sales Simple Regression When the Predictor Is Dichotomous Conducting Power Analyses for Correlation and Simple Regression Summary of Stata Commands Exercises 16 AN INTRODUCTION TO MULTIPLE REGRESSION The Basic Equation with Two Predictors Equations for b , β and $R_{Y,12}$ When the Predictors Are Not Correlated Equations for b , β , and $R_{Y,12}$ When the Predictors Are Correlated Summarizing and Expanding on Some Important Principles of Multiple Regression Testing the <i>b</i> -Weights for Statistical Significance Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The <i>b</i> -Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Models Centering First-Order Effects if the Equation Has an Interaction Methods Useful for Model Selection Conducting Power Analyses from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric Versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric Distribution			
$\begin{array}{llllllllllllllllllllllllllllllllllll$		Using the Prediction Model to Predict Ice Cream Sales	536
Conducting Power Analyses for Correlation and Simple Regression Summary of Stata Commands Exercises 16 AN INTRODUCTION TO MULTIPLE REGRESSION The Basic Equation with Two Predictors Equations for b , β and $R_{Y,12}$ When the Predictors Are Not Correlated Equations for b , β , and $R_{Y,12}$ When the Predictors Are Correlated Summarizing and Expanding on Some Important Principles of Multiple Regression Testing the <i>b</i> -Weights for Statistical Significance Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The <i>b</i> -Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		•	536
Summary of Stata Commands Exercises 16 AN INTRODUCTION TO MULTIPLE REGRESSION The Basic Equation with Two Predictors Equations for b , β and $R_{Y,12}$ When the Predictors Are Not Correlated Equations for b , β , and $R_{Y,12}$ When the Predictors Are Correlated Summarizing and Expanding on Some Important Principles of Multiple Regression Testing the b -Weights for Statistical Significance Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The b -Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Coodness-of-Fit Test The Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		1 0	538
Exercises16 AN INTRODUCTION TO MULTIPLE REGRESSION The Basic Equation with Two Predictors Equations for b , β and $R_{Y,12}$ When the Predictors Are Not Correlated Equations for b , β , and $R_{Y,12}$ When the Predictors Are Correlated Summarizing and Expanding on Some Important Principles of Multiple Regression Testing the b-Weights for Statistical Significance Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18 NONPARAMETRIC METHODS Parametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Goodness-of-Fit Test The Chi-Square Goodness-of-Fit Test The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hyp		Summary of Stata Commands	540
The Basic Equation with Two PredictorsEquations for b, β and $R_{Y,12}$ When the Predictors Are Not CorrelatedEquations for b, β , and $R_{Y,12}$ When the Predictors Are CorrelatedSummarizing and Expanding on Some Important Principles of MultipleRegressionTesting the b-Weights for Statistical SignificanceAssessing the Relative Importance of the Predictors in the EquationMeasuring the Drop in R^2 Directly: An Alternative to the Squared SemiparCorrelationEvaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple RegressionMultiple Regression When One of the Two Independent Variables IsDichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises13 NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is		•	541
The Basic Equation with Two PredictorsEquations for b, β and $R_{Y,12}$ When the Predictors Are Not CorrelatedEquations for b, β , and $R_{Y,12}$ When the Predictors Are CorrelatedSummarizing and Expanding on Some Important Principles of MultipleRegressionTesting the b-Weights for Statistical SignificanceAssessing the Relative Importance of the Predictors in the EquationMeasuring the Drop in R^2 Directly: An Alternative to the Squared SemiparCorrelationEvaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple RegressionMultiple Regression When One of the Two Independent Variables IsDichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises13 NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is	16 A N	INTRODUCTION TO MULTIPLE REGRESSION	553
Equations for b, β and $R_{Y,12}$ When the Predictors Are Not Correlated Equations for b, β , and $R_{Y,12}$ When the Predictors Are Correlated Summarizing and Expanding on Some Important Principles of Multiple Regression Testing the b-Weights for Statistical Significance Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		The Basic Equation with Two Predictors	554
Equations for b, β , and $R_{Y,12}^{V}$ When the Predictors Are Correlated Summarizing and Expanding on Some Important Principles of Multiple Regression Testing the b-Weights for Statistical Significance Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		•	555
Summarizing and Expanding on Some Important Principles of Multiple RegressionTesting the b-Weights for Statistical SignificanceAssessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar CorrelationEvaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is DichotomousControlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises17TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		. ,	556
RegressionTesting the b-Weights for Statistical SignificanceAssessing the Relative Importance of the Predictors in the EquationMeasuring the Drop in R^2 Directly: An Alternative to the Squared SemiparCorrelationEvaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple RegressionMultiple Regression When One of the Two Independent Variables IsDichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Distribution (χ^2)The Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalculating the Fisher's Exact Test by Hand Using the Hypergeometri			
Assessing the Relative Importance of the Predictors in the Equation Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar Correlation Evaluating the Statistical Significance of the Change in R^2 The <i>b</i> -Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the <i>Y</i> -Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence <i>Assumptions of the Chi-Square Test of Independence</i> Fisher's Exact Test <i>Calculating the Fisher's Exact Test by Hand Using the Hypergeometric</i>			558
Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipar CorrelationEvaluating the Statistical Significance of the Change in R^2 The b-Weight As a Partial Slope in Multiple Regression Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric Wethods When the Dependent Variable Is at the Nominal Level18NONPARAMETRIC METHODS Parametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		•	563
CorrelationEvaluating the Statistical Significance of the Change in \mathbb{R}^2 The b-Weight As a Partial Slope in Multiple RegressionMultiple Regression When One of the Two Independent Variables IsDichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Distribution (χ^2)The Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalculating the Fisher's Exact Test by Hand Using the Hypergeometric		Assessing the Relative Importance of the Predictors in the Equation	565
Evaluating the Statistical Significance of the Change in \mathbb{R}^2 The b-Weight As a Partial Slope in Multiple RegressionMultiple Regression When One of the Two Independent Variables IsDichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17TWO-WAY INTERACTIONS IN MULTIPLE REGRESSIONTesting the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises18NONPARAMETRIC METHODSParametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Goodness-of-Fit TestThe Chi-Square Goodness-of-Fit TestThe Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalcul		Measuring the Drop in R^2 Directly: An Alternative to the Squared Semipartial	
The b-Weight As a Partial Slope in Multiple RegressionMultiple Regression When One of the Two Independent Variables IsDichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Distribution (χ^2)The Chi-Square Goodness-of-Fit TestThe Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalculating the Fisher's Exact Test by Hand Using the Hypergeometric			566
Multiple Regression When One of the Two Independent Variables Is Dichotomous Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Goodness-of-Fit Test The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Evaluating the Statistical Significance of the Change in R^2	566
DichotomousControlling Variables Statistically: A Closer LookA Hypothetical ExampleConducting Power Analyses for Multiple RegressionSummary of Stata CommandsExercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using StataComparing the Y-Hat Values from the Additive and Interaction ModelsCentering First-Order Effects if the Equation Has an InteractionProbing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises 18NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Goodness-of-Fit TestThe Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalculating the Fisher's Exact Test by Hand Using the Hypergeometric		The b-Weight As a Partial Slope in Multiple Regression	568
Controlling Variables Statistically: A Closer Look A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level18 NONPARAMETRIC METHODS Parametric Sequare Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Multiple Regression When One of the Two Independent Variables Is	
A Hypothetical Example Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			571
Conducting Power Analyses for Multiple Regression Summary of Stata Commands Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18 NONPARAMETRIC METHODS Parametric Versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level18 Cohi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			576
Summary of Stata Commands Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			577
Exercises17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			580
 17 TWO-WAY INTERACTIONS IN MULTIPLE REGRESSION Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ²) The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test by Hand Using the Hypergeometric 		•	582
Testing the Statistical Significance of an Interaction Using Stata Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Exercises	583
Comparing the Y-Hat Values from the Additive and Interaction Models Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric	17 TV	VO-WAY INTERACTIONS IN MULTIPLE REGRESSION	590
Centering First-Order Effects if the Equation Has an Interaction Probing the Nature of a Two-Way Interaction Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level18Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Testing the Statistical Significance of an Interaction Using Stata	593
Probing the Nature of a Two-Way InteractionInteraction When One of the Independent Variables Is Dichotomousand the Other Is ContinuousMethods Useful for Model SelectionConducting a Power Analysis to Detect an InteractionSummary of Stata CommandsExercises18 NONPARAMETRIC METHODS Parametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Distribution (χ^2)The Chi-Square Goodness-of-Fit TestThe Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalculating the Fisher's Exact Test by Hand Using the Hypergeometric		Comparing the Y-Hat Values from the Additive and Interaction Models	598
 Interaction When One of the Independent Variables Is Dichotomous and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ²) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric 		Centering First-Order Effects if the Equation Has an Interaction	599
and the Other Is Continuous Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Probing the Nature of a Two-Way Interaction	600
Methods Useful for Model Selection Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises18NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal LevelThe Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Interaction When One of the Independent Variables Is Dichotomous	
 Conducting a Power Analysis to Detect an Interaction Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ²) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric 			603
 Summary of Stata Commands Exercises 18 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ²) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric 			610
Exercises18NONPARAMETRIC METHODSParametric versus Nonparametric MethodsNonparametric Methods When the Dependent Variable Is at the NominalLevelThe Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit TestThe Chi-Square Test of IndependenceAssumptions of the Chi-Square Test of IndependenceFisher's Exact TestCalculating the Fisher's Exact Test by Hand Using the Hypergeometric		÷ ,	613
 NONPARAMETRIC METHODS Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ²) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric 		•	614
Parametric versus Nonparametric Methods Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Exercises	617
Nonparametric Methods When the Dependent Variable Is at the Nominal Level The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric	18 N	DNPARAMETRIC METHODS	622
Level The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Parametric versus Nonparametric Methods	622
The Chi-Square Distribution (χ^2) The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric		Nonparametric Methods When the Dependent Variable Is at the Nominal	
The Chi-Square Goodness-of-Fit Test The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			623
The Chi-Square Test of Independence Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			623
Assumptions of the Chi-Square Test of Independence Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			625
Fisher's Exact Test Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			630
Calculating the Fisher's Exact Test by Hand Using the Hypergeometric			633
			635
Distribution			
		Distribution	637

Cambridge University Press & Assessment 978-1-108-72583-5 — Statistics Using Stata Sharon Lawner Weinberg , Sarah Knapp Abramowitz Table of Contents <u>More Information</u>

xiv

Nonp	arametric Methods When the Dependent Variable Is	
Ordin	al-Leveled	639
Wil	coxon Sign Test	640
The	Mann–Whitney U-Test or Wilcoxon's Rank-Sum Test	642
The	Kruskal–Wallis Analysis of Variance	647
Sumn	nary of Stata Commands	649
Exerci	ises	650
19 COMMU	NICATING YOUR STATA RESULTS VIA EXCEL	655
Settin	g the Working Directory	655
Repro	ducing a Table of Univariate Summary Statistics in Excel	656
Ūsi	ng estpost and esttab	656
Usi	ng putexcel	657
Repro	ducing a Correlation Matrix As a Table in Excel	661
Usi	ng estpost and esttab	661
Usi	ng putexcel	662
Repro	ducing Regression Output As a Table in Excel	663
Usi	ng outreg2 to obtain a table of model statistics in Excel	663
	ng eststo and esttab to obtain a table of model statistics in Excel	663
Usi	ng putexcel to reproduce a table of regression coefficients in Excel	664
-	ducing a Graph in Excel (Using putexcel)	666
Concl		668
	nary of Stata Commands	668
Exerci	ises	671
Appendix A	Data Set Descriptions	673
Appendix B	Stata .Do-files and Data Sets in Stata Format	686
Appendix C	Statistical Tables	688
Appendix D	Solutions	711
References		712
Index		716