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SECOND EDITION

DOMINICK SALVATORE, Ph.D.

Professor and Chairperson, Department of Economics, Fordham University

DERRICK REAGLE, Ph.D.

Assistant Professor of Economics, Fordham University

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PREFACE

This book presents a clear and concise introduction to statistics and econometrics. A course in statistics or econometrics is often one of the most useful but also one of the most difficult of the required courses in colleges and universities. The purpose of this book is to help overcome this difficulty by using a problem-solving approach.

Each chapter begins with a statement of theory, principles, or background information, fully illustrated with examples. This is followed by numerous theoretical and practical problems with detailed, step-by-step solutions. While primarily intended as a supplement to all current standard textbooks of statistics and/or econometrics, the book can also be used as an independent text, as well as to supplement class lectures.

The book is aimed at college students in economics, business administration, and the social sciences taking a one-semester or a one-year course in statistics and/or econometrics. It also provides a very useful source of reference for M.A. and M.B.A. students and for all those who use (or would like to use) statistics and econometrics in their work. No prior statistical background is assumed.

The book is completely self-contained in that it covers the statistics (Chaps. 1 to 5) required for econometrics (Chaps. 6 to 11). It is applied in nature, and all proofs appear in the problems section rather than in the text itself. Real-world socioeconomic and business data are used, whenever possible, to demonstrate the more advanced econometric techniques and models. Several sources of online data are used, and Web addresses are given for the student's and researcher's further use (App. 12). Topics frequently encountered in econometrics, such as multicollinearity and autocorrelation, are clearly and concisely discussed as to the problems they create, the methods to test for their presence, and possible correction techniques. In this second edition, we have expanded the computer applications to provide a general introduction to data handling, and specific programming instruction to perform all estimations in this book by computer (Chap. 12) using Microsoft Excel, Eviews, or SAS statistical packages. We have also added sections on nonparametric testing, matrix notation, binary choice models, and an entire chapter on time series analysis (Chap. 11), a field of econometrics which has expanded as of late. A sample statistics and econometrics examination is also included.

The methodology of this book and much of its content has been tested in undergraduate and graduate classes in statistics and econometrics at Fordham University. Students found the approach and content of the book extremely useful and made many valuable suggestions for improvement. We have also received very useful advice from Professors Mary Beth Combs, Edward Dowling, and Damodar Gujarati. The following students carefully read through the entire manuscript and made many useful comments: Luca Bonardi, Kevin Coughlin, Sean Hennessy, and James Santangelo. To all of them we are deeply grateful. We owe a great intellectual debt to our former professors of statistics and econometrics: J. S. Butler, Jack Johnston, Lawrence Klein, and Bernard Okun.

We are indebted to the Literary Executor of the late Sir Ronald A. Fisher, F. R. S., to Dr. Frank Yates, F. R. S., and the Longman Group Ltd., London, for permission to adapt and reprint Tables III and IV from their book, *Statistical Tables for Biological, Agricultural and Medical Research*.

In addition to *Statistics and Econometrics*, the Schaum's Outline Series in Economics includes *Microeconomic Theory*, *Macroeconomic Theory*, *International Economics*, *Mathematics for Economists*, and *Principles of Economics*.

DOMINICK SALVATORE
DERRICK REAGLE

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iii

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CONTENTS

CHAPTER 1	Introduction	1
	1.1 The Nature of Statistics	1
	1.2 Statistics and Econometrics	1
	1.3 The Methodology of Econometrics	2
CHAPTER 2	Descriptive Statistics	9
	2.1 Frequency Distributions	9
	2.2 Measures of Central Tendency	11
	2.3 Measures of Dispersion	13
	2.4 Shape of Frequency Distributions	15
CHAPTER 3	Probability and Probability Distributions	36
	3.1 Probability of a Single Event	36
	3.2 Probability of Multiple Events	37
	3.3 Discrete Probability Distributions: The Binomial Distribution	39
	3.4 The Poisson Distribution	40
	3.5 Continuous Probability Distributions: The Normal Distribution	41
CHAPTER 4	Statistical Inference: Estimation	67
	4.1 Sampling	67
	4.2 Sampling Distribution of the Mean	67
	4.3 Estimation Using the Normal Distribution	69
	4.4 Confidence Intervals for the Mean Using the t Distribution	70
CHAPTER 5	Statistical Inference: Testing Hypotheses	87
	5.1 Testing Hypotheses	87
	5.2 Testing Hypotheses about the Population Mean and Proportion	87
	5.3 Testing Hypotheses for Differences between Two Means or Proportions	89
	5.4 Chi-Square Test of Goodness of Fit and Independence	90
	5.5 Analysis of Variance	92
	5.6 Nonparametric Testing	94
STATISTICS EXAMINATION		124
CHAPTER 6	Simple Regression Analysis	128
	6.1 The Two-Variable Linear Model	128
	6.2 The Ordinary Least-Squares Method	128

	6.3 Tests of Significance of Parameter Estimates	130
	6.4 Test of Goodness of Fit and Correlation	132
	6.5 Properties of Ordinary Least-Squares Estimators	133
CHAPTER 7	Multiple Regression Analysis	154
	7.1 The Three-Variable Linear Model	154
	7.2 Tests of Significance of Parameter Estimates	155
	7.3 The Coefficient of Multiple Determination	157
	7.4 Test of the Overall Significance of the Regression	158
	7.5 Partial-Correlation Coefficients	158
	7.6 Matrix Notation	159
CHAPTER 8	Further Techniques and Applications in Regression Analysis	181
	8.1 Functional Form	181
	8.2 Dummy Variables	182
	8.3 Distributed Lag Models	182
	8.4 Forecasting	183
	8.5 Binary Choice Models	184
	8.6 Interpretation of Binary Choice Models	185
CHAPTER 9	Problems in Regression Analysis	206
	9.1 Multicollinearity	206
	9.2 Heteroscedasticity	207
	9.3 Autocorrelation	208
	9.4 Errors in Variables	209
CHAPTER 10	Simultaneous-Equations Methods	228
	10.1 Simultaneous-Equations Models	228
	10.2 Identification	229
	10.3 Estimation: Indirect Least Squares	229
	10.4 Estimation: Two-Stage Least Squares	230
CHAPTER 11	Time-Series Methods	242
	11.1 ARMA	242
	11.2 Identifying ARMA	242
	11.3 Nonstationary Series	245
	11.4 Testing for Unit Root	246
	11.5 Cointegration and Error Correction	247
	11.6 Causality	248
CHAPTER 12	Computer Applications in Econometrics	266
	12.1 Data Formats	266
	12.2 Microsoft Excel	267

	12.3 Eviews	268
	12.4 SAS	269
ECONOMETRICS EXAMINATION		294
Appendix 1	Binomial Distribution	300
Appendix 2	Poisson Distribution	306
Appendix 3	Standard Normal Distribution	307
Appendix 4	Table of Random Numbers	309
Appendix 5	Student's t Distribution	310
Appendix 6	Chi-Square Distribution	311
Appendix 7	F Distribution	313
Appendix 8	Durbin-Watson Statistic	317
Appendix 9	Wilcoxon W	319
Appendix 10	Kolmogorov-Smirnov Critical Values	321
Appendix 11	ADF Critical Values	322
Appendix 12	Data Sources on the Web	323
INDEX		324