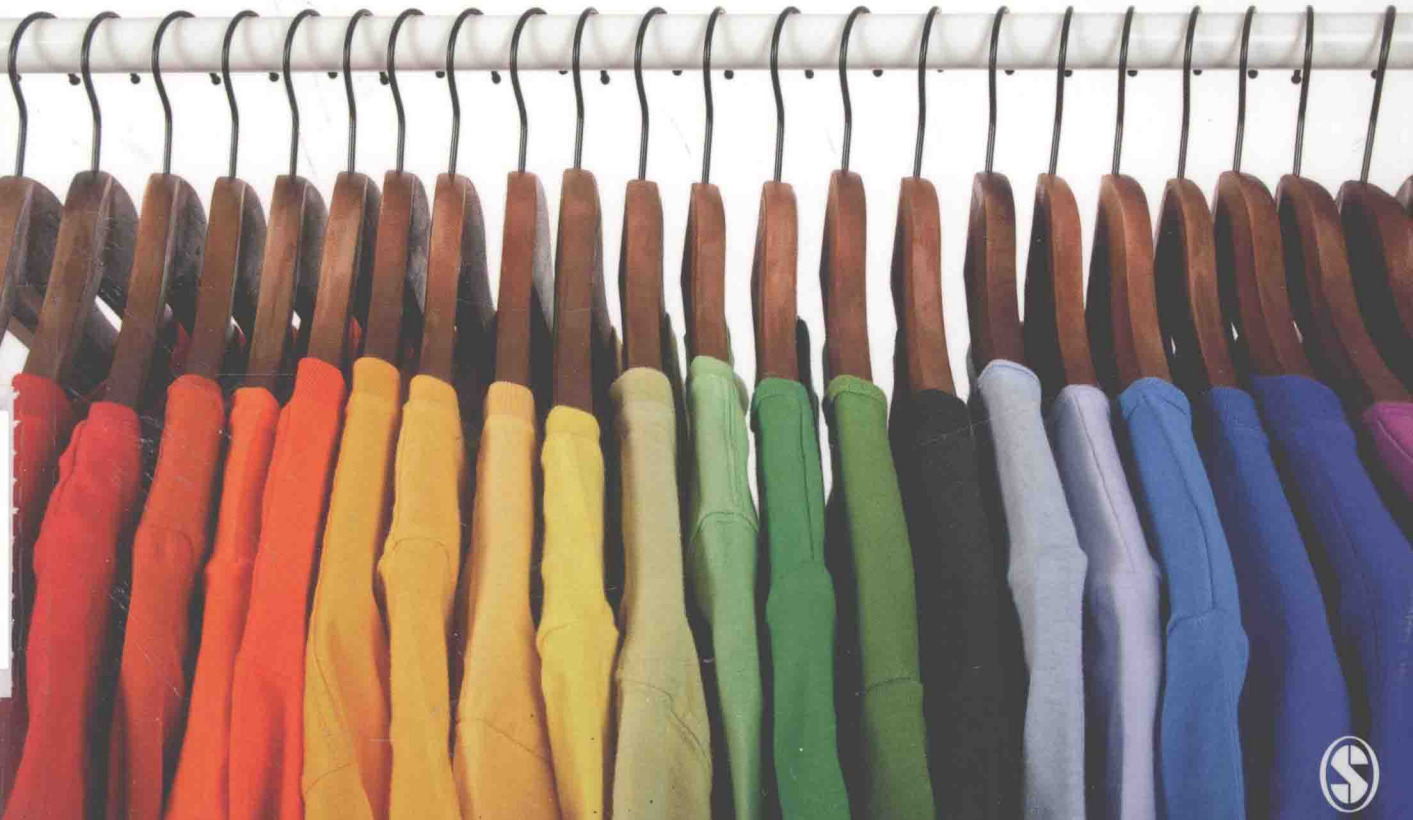
7th Edition

Social Statistics for a Diverse Society

Chava Frankfort-Nachmias
Anna Leon-Guerrero



Social Statistics for a Diverse Society

Seventh Edition

Chava Frankfort-Nachmias
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PREFACE

Statistics is not just a part of our lives in the form of news bits or information. And it isn't just numbers either. Throughout this book, we encourage you to move beyond being just a consumer of statistics and begin to recognize and use the many ways that statistics can increase our understanding of our world.

Recently data has been characterized as "big,"[1] referring not only to the amount of available data, but also to the application of such information. Data are used to predict public opinion, health and illness, consumer spending, and even a presidential election. Throughout our text, we emphasize the relevance of statistics in our daily and professional lives. How Americans feel about a variety of political and social topics—the economy, same-sex marriage, gun control, immigration, health care reform, or our president—are measured by surveys and polls and reported daily by the news media. The latest from a health care study on women was just reported on a morning talk show. And that outfit you just purchased—it didn't go unnoticed. The study of consumer trends, specifically focusing on teens and young adults, helps determine commercial programming, product advertising and placement, and, ultimately, consumer spending. President Obama's 2012 re-election campaign victory was attributed in part to a team of data experts who analyzed voter files to predict likely voters.

As social scientists, we have always known that statistics can be a valuable set of tools to help us analyze and understand the differences in our American society and the world. We use statistics to track demographic trends, to assess differences among groups in society, and to make an impact on social policy and social change. Statistics can help us gain insight into real-life problems that affect our lives.

TEACHING AND LEARNING GOALS

The following three teaching and learning goals continue to be the guiding principles of our book, as they were in the sixth edition.

The first goal is to introduce you to social statistics and demonstrate its value. Although most of you will not use statistics in your own student research, you will be expected to read and interpret statistical information presented by others in professional and scholarly publications, in the workplace, and in the popular media. This book will help you understand the concepts behind the statistics so that you will be able to assess the circumstances in which certain statistics should and should not be used.

Our second goal is to demonstrate that substance and statistical techniques are truly related in social science research. A special quality of this book is its integration of statistical techniques with

[1] Big data is described by Viktor Mayer-Schönberger and Kenneth Cukier in *Big Data: A Revolution That Will Transform How We Live, Work, and Think* (2013).

substantive issues of particular relevance in the social sciences. Your learning will not be limited to statistical calculations and formulas. Rather, you will become proficient in statistical techniques while learning about social differences and inequality through numerous substantive examples and real-world data applications. Because the world we live in is characterized by a growing diversity—where personal and social realities are increasingly shaped by race, class, gender, and other categories of experience—this book teaches you basic statistics while incorporating social science research related to the dynamic interplay of social variables.

Many of you may lack substantial math background, and some of you may suffer from the "math anxiety syndrome." This anxiety often leads to a less-than-optimal learning environment, with students trying to memorize every detail of a statistical procedure rather than attempting to understand the general concept involved. Hence, our third goal is to address math anxiety by using straightforward prose to explain statistical concepts and by emphasizing intuition, logic, and common sense over rote memorization and derivation of formulas.

DISTINCTIVE AND UPDATED FEATURES OF OUR BOOK

The three learning goals we emphasize are accomplished through a variety of specific and distinctive features throughout this book.

A Close Link Between the Practice of Statistics, Important Social Issues, and Real-World Examples. A special quality of this book is its integration of statistical technique with pressing social issues of particular concern to society and social science. We emphasize how the conduct of social science is the constant interplay between social concerns and methods of inquiry. In addition, the examples throughout the book—mostly taken from news stories, government reports, public opinion polls, scholarly research, and the National Opinion Research Center's General Social Survey—are formulated to emphasize to students like you that we live in a world in which statistical arguments are common. Statistical concepts and procedures are illustrated with real data and research, providing a clear sense of how questions about important social issues can be studied with various statistical techniques.

A Focus on Diversity: U.S. and International. A strong emphasis on race, class, and gender as central substantive concepts is mindful of a trend in the social sciences toward integrating issues of diversity in the curriculum. This focus on the richness of social differences within our society and our global neighbors is manifested in the application of statistical tools to examine how race, class, gender, and other categories of experience shape our social world and explain social behavior. There is a special focus on the interplay between local and global concern. Throughout the text, we rely on data from the International Social Survey Programme, and we created a special global data set for this edition to help expand our statistical focus beyond the United States.

Reading the Research Literature. In your student career and in the workplace, you may be expected to read and interpret statistical information presented by others in professional and scholarly publications. The statistical analyses presented in these publications are a good deal more complex than most class and textbook presentations. To guide you in reading and interpreting research reports written by social scientists, most chapters include a section presenting excerpts of published research reports using the statistical concepts under discussion. Additionally, we include A Closer

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Look section in several chapters, advising students about the common errors and limitations in data collection and analysis.

Tools to Promote Effective Study. Each chapter concludes with a list of main points and key terms discussed in that chapter. Boxed definitions of the key terms also appear in the body of the chapter, as do learning checks keyed to the most important points. Key terms are also clearly defined and explained in the glossary, another special feature in our book. Answers to all the odd-numbered exercises and Learning Checks in the text are included at the end of the book, as well as on the study site at **edge.sagepub.com/frankfort7e**. Complete step-by-step solutions are in the manual for instructors, available from the publisher on adoption of the text.

Emphasis on Computing. SPSS for Windows is used throughout the book, although the use of computers is not required to learn from the text. Real data are used to motivate and make concrete the coverage of statistical topics. These data, from the General Social Survey (GSS), Health Information National Trends Survey (HINTS), Monitoring the Future (MTF) survey, and the global data set constructed for this edition, are available on the study site at **edge.sagepub.com/frankfort7e**. At the end of each chapter, we feature a demonstration of a related SPSS procedure along with a set of exercises.

HIGHLIGHTS OF THE SEVENTH EDITION

We have made a number of important changes to this book in response to the valuable comments that we have received from the many instructors adopting the sixth edition and from other interested instructors (and their students).

- *Chapter reorganization:* In this edition, we've merged the discussions on measures of association for nominal and ordinal data (including lambda and gamma) with chi-square in one chapter. The text concludes with chapters on analysis of variance and regression and correlation.
- *Real-world examples and exercises:* A hallmark of our first six editions was the extensive use of real data from a variety of sources for chapter illustrations and exercises. Throughout this edition, we have updated the majority of exercises and examples based on GSS, MTF, and HINTS surveys, our global data set, or U.S. Census data.
- *GSS 2010, HINTS 2012, MTF 2011, and Global 2013:* As a companion to the seventh edition's SPSS demonstrations and exercises, we have created four data sets. The GSS10SSDS.SAV contains an expanded selection of variables and cases from the 2010 GSS. The HINTS12SSDS.SAV contains 50 variables from the 2012 Health Information National Trends Survey, administered by the National Cancer Institute. HINTS, a nationally representative survey collected in both English and Spanish, aims to monitor changes in the rapidly evolving field of health communication. The MTF11SSDS.SAV contains a selection of variables and cases from the Monitoring the Future 2011 survey conducted by the University of Michigan Survey Research Center. MTF is a survey of 12th-grade students, and it explores drug use and criminal behavior. GLOBAL13SSDS.SAV includes data measuring the social, economic, and political conditions of 70 countries. SPSS exercises at the end of each chapter use certain variables from all data modules. There is ample opportunity for instructors to develop their own SPSS exercises using these data.

- *Supplemental tools on important topics:* The seventh edition's discussion of inferential statistics remains focused on *t*, *Z*, chi-square, and regression and correlation. For selected chapters, we have added a new section, Focus on Interpretation. In these sections, we highlight the interpretation of data or specific statistical calculations (some calculated via SPSS). Being statistically literate involves more than just completing a calculation; it also includes learning how to apply and interpret statistical information and being able to say what it means.

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SAGE edge for students provides a personalized approach to help students accomplish their coursework goals in an easy-to-use learning environment.

- Mobile-friendly **eFlashcards** strengthen understanding of key terms and concepts.
- Mobile-friendly practice **quizzes** allow for independent assessment by students of their mastery of course material.
- A customized online **action plan** includes tips and feedback on progress through the course and materials, which allows students to individualize their learning experience.
- **Web exercises** and meaningful web links facilitate student use of internet resources, further exploration of topics, and responses to critical thinking questions.
- EXCLUSIVE! Access to full-text **SAGE journal articles** that have been carefully selected to support and expand on the concepts presented in each chapter.
- Access to four new **data sets** including GSS 2010, HINTS 2012, MTF2011 and Global 2013.

SAGE edge for instructors supports teaching by making it easy to integrate quality content and create a rich learning environment for students.

- **Test banks** provide a diverse range of pre-written options as well as the opportunity to edit any question and/or insert personalized questions to effectively assess students' progress and understanding.
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- Editable, chapter-specific **PowerPoint® slides** offer complete flexibility for creating a multimedia presentation for the course.
- EXCLUSIVE! Access to full-text **SAGE journal articles** have been carefully selected to support and expand on the concepts presented in each chapter to encourage students to think critically.
- **Multimedia content** includes web resources and web exercises that appeal to students with different learning styles.

- **Lecture notes** summarize key concepts by chapter to ease preparation for lectures and class discussions.
- Lively and stimulating **ideas for class activities** that can be used in class to reinforce active learning.
- **Chapter-specific discussion questions** help launch classroom interaction by prompting students to engage with the material and by reinforcing important content.
- A **Course cartridge** provides easy LMS integration.

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