Making Statistics Less Intimidating for Students

Carrying on Neil J. Salkind's legacy for the next generation of students

There's a well-known saying on college campuses that all students hate statistics—and, at one time, that saying was mostly true. After all, statistics can be a dry subject and trying to understand it is daunting for the typical math-phobic introductory statistics student.

Then came author **Neil J. Salkind** who was convinced that even the most scared student could succeed in—and even enjoy—statistics.

That's why he wrote **Statistics for People Who (Think They) Hate Statistics**, a revolutionary textbook that has become a survival guide for hundreds of thousands of students who "once thought" they hated statistics. In the words of one professor, Salkind "takes the worrisome topic of statistics and turns it into an enjoyable enterprise."

The magic of Salkind's approach is his ability to focus on only the most important topics students need to succeed in the course, their future jobs, and their everyday lives. Then, without "dumbing down" the content, Salkind writes as if he is talking directly to the students, presenting topics in a warm, down-to-earth, approachable manner that is funny, disarming, and infused with humor and a respect for the students.

His flagship book evolved to meet the needs of students and instructors through six successful editions.

Flash forward to present day, after Salkind's passing, and the publication of the **Seventh Edition** of **Statistics for People Who (Think They) Hate Statistics** and a new R-specific title, **Statistics for People Who (Think They) Hate Statistics Using R**. The important question

became who could best carry on Salkind's legacy for the next generation of students?

A book that students buy and love

"When Neil asked me if I would be willing to take the helm as co-author of the new **Seventh Edition** of his beloved book, my first thoughts weren't about what a tremendous honor it was," said **Bruce B. Frey**, former student and then colleague of Neil J. Salkind, award-winning researcher, author, and full professor at the University of Kansas, and now the new co-author of **Statistics for People Who (Think They) Hate**

Bruce B. Frey

Leslie A. Shaw

Statistics. "I thought, 'How nice that he's asked me to be a part of this.' It was only later that I realized what a tremendous responsibility and incredible honor it was. Yes, a lot of people write books, but this was a book that people bought and loved."

Step-by-step approach

"Throughout my work on the new edition, I kept in mind my own goal in teaching: to help students not be afraid of statistics, and to lower their anxiety by only spending time on the most important concepts. By teaching those concepts in a step-by-step way, it ensures that they develop a full understanding that they can build on in future courses," Bruce said. "I think I've succeeded."

> **This is a masterpiece of statistical reference data that meshes the best parts of both authors."**

Reviewer Jesse Buchholz of Northwest Nazarene University agrees: *"…This is a masterpiece of statistical reference data that meshes the best parts of both authors and fills in the gap following the passing of Salkind. I can't wait to get this new text into the hands of my students and I know that this new book is going to become a foundational pillar in all of my classes."*

Relatable and contemporary examples

"I really enjoyed updating examples and adding new information students can relate to. Students who take statistics are diverse. I thought it was important to demonstrate the important role people they can relate to have played in the history of statistics. For example, one of the half-page biographies profiles Florence Nightingale, who essentially pioneered the use of data in making health care policy. Another strength of this new

edition is an emphasis on contemporary approaches to research. For example, research design examples treat gender as a continuous variable, not binary, as it is now understood to be."

New section on Effect Size

"Another addition I am especially proud of is the new section on effect size. Knowledge of this topic has become especially important in statistics as reflected in the profession's leading journals. And the new edition now includes a greater focus on the importance of level of measurement—a particular interest of mine—in choosing a statistical procedure." (SAGE has published another book of Frey's, *There's a Stat for That!*, that is all about the link between levels of measurement and the right statistic to use.)

New engaging Lecture Videos

"I had the pleasure of working on the brand-new *Lightboard Lecture Videos* in which I demonstrate statistical procedures using innovative lit glass technology that allows me to look right out at the students while writing in midair on an invisible whiteboard. With a subject like statistics, you can't have too many ways to help students learn. In addition to lectures, study groups, and hands-on exercises, you can explain concepts in a variety of ways. The *Lightboard Lecture Videos* provide students with yet another highly personal and visual way."

Teaching R with Salkind's signature humorous approach

Leslie A. Shaw, a quantitative psychologist, expert in statistical software, former statistics instructor, and current research associate at the Yang-Tan Institute in the School of Industrial and Labor Relations at Cornell University, also brought her own voice and expertise to

her work on **Statistics for People Who (Think They) Hate Statistics Using R**. This new book in the Salkind series covers various basic and advanced statistical procedures, from correlation and graph creation to analysis of variance, regression, non-parametric tests, and more, using R and R Studio.

For Leslie, the opportunity to become co-author of Neil's R text came unexpectedly. "When SAGE asked me if I would be willing to become co-author, I was surprised and then honored to take on this responsibility. To complement Neil's approachable style, I kept explanations at the same level and stayed with the spirit of the series. Throughout the process, I injected some of my own humor and new examples, but I always recognized when [Neil's] work was golden and didn't touch a word."

New chapters on R and R Studio

"Throughout the revision process, I strove to stay with the spirit of the series. At the same time, the two introductory chapters on R and on R Studio were new, and I had to cover a lot of ground maintaining Neil's style and level of presentation as I explained the basics of how to download and install R and how to use it on a laptop. I also included an appendix that shows the installation examples using a Mac. In the R chapters, I included step-by-step demonstrations of each statistical procedure in R, including examples of how to import datasets, enter the syntax to run tests, and how to understand the output, all while keeping my goal in mind of making using R to learn statistics non-intimidating for students."

Videos that bring examples to life

"A fun part of the project was overseeing the new screencast videos. Where R examples are included in the book, they are worked out in the videos that cover such topics as installing R, running R syntax,
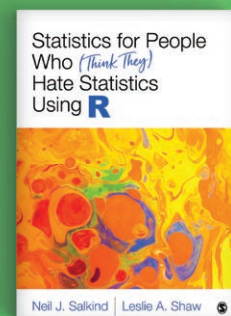
etc. I also asked the developers to create videos that highlight common mistakes and then show how to correct them. The videos also showcase lots of little shortcuts students can use when using R or R Studio. I think these videos will be extremely useful to students and will be another way the book can make learning statistics less intimidating."

Reviewers indicate she's on the right track: *"The (late) Dr. Salkind's text continues (with Dr. Shaw's R-integration) to be a readable statistical text that provides a gentle yet surprisingly comprehensive introduction to statistics. For anyone teaching a basic level, introductory level, or first class in statistics, I cannot think of a better text. This R update adds an important element to the Excel and SPSS versions of this inimitable text,"* said Jeff Savage of Cornerstone University. Shlomo Sawilowsky of Wayne State University commented: *"There are many textbooks on R, textbooks on Statistics, and textbooks on R and Statistics that are extremely technical and difficult to read and use. This textbook is the golden mean!"*

Learn more:
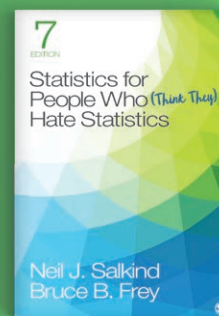
Statistics for People Who (Think They) Hate Statistics, *Seventh Edition*

Statistics for People Who (Think They) Hate Statistics Using R