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STATISTICS in Criminology and Criminal Justice

ANALYSIS AND INTERPRETATION

FIFTH EDITION

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Preface

This fifth edition represents a change in the way the material in the book is presented. We have added material at the beginning of the chapters that we call "Secrets for Success." For students who want to make sure they understand the material and for students who are struggling, this will be a great opportunity to ensure success in learning the material. We also have "Stop! Do This" exercises throughout each chapter. These give students a chance to practice the material in the section they just read. We have also moved some of the exercises from the end of the chapters into a separate Student Practice Workbook on the Navigate Companion Website that can be used by professors for additional homework and can be obtained by students for homework or practice. This allows the chapter exercises to contain more critical thinking questions and those that integrate material across the chapters. We hope this change in structure will make the book more useful for teachers and more understandable by students. This edition still retains the focus on understanding data, knowing what analysis procedures are best matched for that data, and interpreting the results. It also retains a reliance on statistical output (including how to conduct analyses in SPSS). This edition maintains the breadth of previous editions, allowing it to serve students well from undergraduate classes and into graduate school, perhaps even to a doctoral program. We firmly believe that a basic understanding of statistics is essential to successfully navigating careers in the 21st century. We hope this text serves as a foundation for knowledge and success.

STOP! DO THIS

1. Flip a coin 10 times, and see what percentage of heads you get.
2. Flip a coin for nine more sets of 10, and calculate the mean number of heads you get (create a sampling distribution of your coin flips).
3. For the largest run of heads or tails in a row, calculate the probability of that circumstance occurring.

SECRETS FOR SUCCESS

1. Read the chapter carefully, making sure to work through the examples to ensure you understand them.
2. Answer the following questions about the examples:
   a. Explain the importance of inferential analysis.
   b. In relation to the normal curve, explain *Z*-score calculations.
   c. For the confidence interval calculation, what are the confidence limits? What does this mean in relation to this calculation?
3. Complete the following exercises:
   a. Explain why you might need to identify the area under a normal curve.
   b. Discuss probability. Why is it important for inferential analyses?
   c. Explain the differences between probability and nonprobability sampling. Give examples of each.
4. Read the chapter again. Make sure to do any "Stop! Do This" exercises you have not already successfully completed.
5. As you read the chapter, write down questions and things you do not understand to go over in class.

Practice Workbook CHAPTER 2

For each of the variables below: (a) discuss why it is distinct, mutually exclusive, and completely exhaustive or why it is not; (b) discuss whether the variable is discrete or continuous; (c) work through the process of determining the level of measurement, making sure to explain each step; (d) write the level of measurement for that variable based on your arguments; and (e) state how the variable would likely be used in the research process.

Variables in Everyday Life

1. undergraduate major (sociology, engineering, etc.)

Variables from Surveys

17. What is your social security number?

18. Do you receive any of the following forms of financial aid?

Loan: Yes No

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New to the *Fifth Edition*

Now in its fifth edition, *Statistics in Criminology and Criminal Justice: Analysis and Interpretation* focuses on both theory and application of statistical analysis geared toward social science, particularly criminology and criminal justice students. The *Fifth Edition* addresses data collection, knowing which statistics to use with what data, and how to interpret output of SPSS. This text comprehensively explains and demonstrates statistical procedures, explains why procedures give the results they do, shows how to interpret the output of statistical analyses, and much more. For this edition we have added two sets of activities to improve student learning. The first is a "flipped classroom" activity that helps students with a strategy for learning the material. The second is exercises throughout each chapter that test students' knowledge of the material in that section. Combined, these should give students the knowledge they need to be successful on the end-of-chapter exercises and to fully understand the material.

Instructor Resources

- **Lecture Slides in PowerPoint format:** An effective way for instructors to make engaging and educational presentations. Slides can be edited and modified to fit an instructor's specific classroom needs.
- **Test Bank:** Contains multiple choice, true/false, and fill-in-the-blank questions. This array of questions allows an instructor to quickly customize classroom tests and quizzes by selecting, editing, and printing a test. The Test Bank comes with an answer key that includes page references to the text.
- **Chapter Outlines:** Highlight the important topics covered throughout each chapter in an easy-to-read format. Chapter Outlines can be modified to fit your classroom needs.

Student Resources

Make full use of today's teaching and technology! Visit the Navigate Companion Website to access additional resources to help the students grasp key concepts in statistics for criminal justice.

http://criminaljustice.jbpub.com/Stats5e

- Our interactive Companion Website has been designed to specifically complement *Statistics in Criminology and Criminal Justice: Analysis and Interpretation, Fifth Edition*. The resources available include:
  - Fully interactive glossary
  - Practice Quizzes and an interactive Practice Workbook to test your knowledge of the important concepts in each chapter
  - Sample Data Sets (both in SPSS and Excel) to enhance data sets and activities presented in the book

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