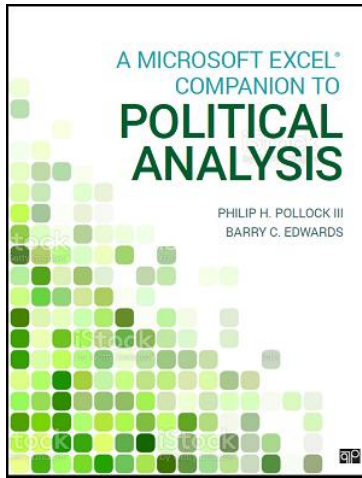


Instructor's Solution Manual to Chapter Exercises in



A MICROSOFT EXCEL COMPANION TO POLITICAL ANALYSIS

By Philip H. Pollock III and Barry C. Edwards

Contents

| | |
|---|-------------------------------------|
| About This Instructor's Manual | 2 |
| Chapter 1: Using Excel for Data Analysis | 3 |
| Chapter 2: Descriptive Statistics | Error! Bookmark not defined. |
| Chapter 3: Transforming Variables..... | Error! Bookmark not defined. |
| Chapter 4: Making Comparisons | Error! Bookmark not defined. |
| Chapter 5: Graphing Relationships and Describing Patterns | Error! Bookmark not defined. |
| Chapter 6: Random Assignment and Sampling | Error! Bookmark not defined. |
| Chapter 7: Making Controlled Comparisons | Error! Bookmark not defined. |
| Chapter 8: Foundations of Inference..... | Error! Bookmark not defined. |
| Chapter 9: Hypothesis Tests With One and Two Samples | Error! Bookmark not defined. |
| Chapter 10: Chi-Square Test and Analysis of Variance | Error! Bookmark not defined. |
| Chapter 11: Correlation and Bivariate Regression..... | Error! Bookmark not defined. |
| Chapter 12: Multiple Regression | Error! Bookmark not defined. |
| Chapter 13: Analyzing Regression Residuals | Error! Bookmark not defined. |
| Chapter 14: Logistic Regression | Error! Bookmark not defined. |
| Chapter 15: Doing Your Own Political Analysis..... | Error! Bookmark not defined. |

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About This Instructor's Manual

Learning how to conduct political analysis requires deliberate practice. Watching someone else do political analysis is fine, and may be necessary, but watching someone analyze data is a far cry from being able to do it yourself. The end of chapter exercises in *A Microsoft Excel Companion to Political Analysis* have been carefully written to give students an opportunity to practice political analysis with Excel, hone their analysis skills, and learn how to solve problems.

There are 10 exercises for each chapter. Each set of exercises get progressively more difficult. The exercises may start by having students practice a single step with extensive guidance, then require a combination of steps with less guidance, and conclude with exercises that require students to practice all the necessary steps with minimal guidance. This style of deliberate practice helps students gain confidence and stay motivated. Depending on the level of your class, you might want to assign students six or eight exercises per chapter and make the remainder extra credit problems.

These exercises are practice problems, but few students will practice political analysis on their own unless the exercises are graded. Because instructors will use some or all of these exercises as graded assignments, **do not redistribute this Instructor's Manual**. This manual is meant for instructors only. Do not share this manual to give students an opportunity to check their work or see how to solve problems they were assigned. If you share any part of this manual with students, they will use it to cheat. There are now websites, like Chegg and Quizlet, where students share answers to test questions on an international scale. Cheating takes away the incentive to learn and devalues real achievements. We need all instructors to be vigilant about the integrity of political science research methods courses.

Many exercises require students to complete tables that have been partially filled out by us. These exercises give students some guidance so students can focus on a few missing elements. To distinguish what was given in the question from elements students fill in, we **highlight and bold** what students should fill in. Here's an example from Chapter 4 exercises.

| | Suicide Rate per 100,000 Population | | Count |
|-------------------------|-------------------------------------|-------------|-----------|
| | Mean | <i>SD</i> | |
| More gun restrictions | 12.56 | 3.71 | 15 |
| Middle gun restrictions | 15.04 | 2.54 | 14 |
| Fewer gun restrictions | 17.73 | 3.28 | 21 |
| Total | 15.43 | 3.86 | 50 |

The exercise gives students a table with row and column labels and asks them to fill in the numbers in the table cells. We show them that the total mean is 15.43 and the total count is 50 so they can verify they're on the right track when they're doing this problem.

Good luck with your class! Philip Pollock and I hope you enjoy using *A Microsoft Excel Companion to Political Analysis*. Feel free to email me with comments and questions: barry.edwards@ucf.edu.

Chapter 1: Using Excel for Data Analysis

1.

- A. Alabama has value 19 on the `gunlaw_rank` variable and value 17 on the `Gun_rank11` variable.
- B. These numeric values indicate that Alabama's gun control laws are slightly more *restrictive* than the median state's laws. These rankings were generated by the Brady Campaign, a pro-gun control organization, with lower values (closer to #1 ranking) representing more gun control laws.

2.

- A. 2.20
- B. 22
- C. 2
- D. 10.56
- E. `=AVERAGE(B1:B5,D1:D5)`
- F. 13

3.

Excel formulas use mathematical operators, like `+`, `-`, `/`, `*`, to return a numeric result. Excel functions, like `AVERAGEIF` and `AVERAGEIFS`, perform some preprogrammed operations, like averaging a set of values. Functions are called by name and supplied arguments. Excel's data analysis tools are a suite of tools in the Data Analysis ToolPak. These tools return results, often in large tables, to worksheets but the commands entered to implement them are not saved in cells on worksheets. The Descriptive Statistics tool generates a table of descriptive statistics.

4.

- A. 12

- B. C2 and C5
- C. 22.5
- D. B1 and B3
- E.

| Name | Value in Part A | Value in Part C | Brief Description |
|-----------------|-----------------|-----------------|---|
| average_range | C1:C5 | B1:B5 | Range of cell values to be averaged if they meet criteria |
| criteria_range1 | A1:A5 | C1:C5 | The range of cells to which the first IF criteria applies |
| criteria1 | >0 | >0 | The first IF criteria; here, it's greater than 0. |
| criteria_range2 | B1:B5 | A1:A5 | The range of cells to which the second IF criteria applies |
| criteria2 | <15 | <15 | The second IF criteria; here, it's less than 15. |

5.

- A. Data
- B. Data
- C. Add-ins
- D.

| | Column 1 | Column 2 | Column 3 |
|----------|--------------|-------------|----------|
| Column 1 | 1.00 | | |
| Column 2 | -0.84 | 1.00 | |
| Column 3 | -0.59 | 0.17 | 1.00 |

6.

- A. hs_yrs_ss
- B. vep16_turnout
- C. attend_pct
- D. volunteer_rate

7.

- A. The variable “pid” is a measure of the subjects’ partisan identification on a 7-point scale. 1 = *strong Democrat*, 2 = *Democrat*, 3 = *lean Democrat*, 4 = *Independent*, 5 = *lean Republican*, 6 = *Republican*, 7 = *strong Republican*.
- B. The variable “ideology” is a measure of the subjects’ political ideology on a 7-point scale. 1 = *strong liberal*, 2 = *liberal*, 3 = *lean liberal*, 4 = *moderate*, 5 = *lean conservative*, 6 = *conservative*, 7 = *strong conservative*.

8.

There are many differences between (a) the basic Excel table and (b) the formatted table. The student should identify five differences. These differences include:

- solid box border around table (b),
- table (b) has descriptive caption,
- different column labels,
- first blank row of (a) cut out of table (b),
- not all rows of (a) are shown in (b),
- decimal places lined up in table (b),
- font faces different,
- computed values rounded to three decimal places in table (b).

9.

Here are the variable descriptions in the Appendix. Students were asked to describe these variables in “their own words” so their wording should vary without changing the essential meaning.

- A. Total fertility rate: Number children born per woman (CIA)
- B. Percentage of population aged 15–49 with HIV. From World Economic Forum

- C. Number infants dying before age 1 per 1,000 live births. From World Bank's World Development Indicators
- D. Public expenditure on health as a percentage of GDP (UN)
- E. Age-standardized death rates from noncommunicable diseases per 100,000 people (UN)

10.

- A. The student should identify an online resource, like a website, blog, YouTube channel, or message board, that provides basic information about Excel. This is useful if student does not have much prior experience with Excel. The student should identify the name of the resource, its URL, and describe what makes it a good resource. Answers should vary.
- B. The student should identify an online resource that provides information on specialized Excel functions, like a resource on Excel's text processing functions. This is useful for students who want to learn more about a specialized topic that is only introduced in the class. The student should identify the name of the resource, its URL, and describe what makes it a good resource. Answers should vary.