
PSC 200

Applied Data Analysis

Fall 2003

12:30-1:45 T/R, Dewey 2162

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OVERVIEW: This course focuses on how to do original empirical research in political science and on how to understand and critique the work of others.

Readings are from the following books:

Required:

- Phillip H. Pollock, *The Essentials of Political Analysis* (2003, CQ Press, Washington, D.C.)
- Phillip H. Pollock, *An SPSS Companion to Political Analysis* (2003, CQ Press, Washington, D.C.)

Readings from these books are listed below, as are other required readings. Unless indicated otherwise, these additional readings are available on JSTOR on the library website.

Strongly recommended:

- Murray R. Spiegel and Larry J. Stephens. *Schaum's Outlines: Statistics*. 3rd edition. McGraw-Hill.

Grades will be based on three in-class exams, three data analysis exercises, five brief homework assignments, and a final data analysis/paper. Each assignment is due one week from the day we finish discussing the topic, and none should use articles assigned in the course. Each of the homework assignments should be no more than two double-spaced pages of text in length, excluding any tables or other supplementary material you provide. The data analysis exercises should be no more than five double-spaced pages of text in length, excluding any tables or other supplementary material you provide. Grades will be weighted as follows: exams 15% each, data analyses 10% each, class assignments 2% each, final data analysis/paper 15%.

The readings are shown below. Please be sure to read them before class and be prepared to discuss them in class. Exact dates are not shown on the syllabus; students will be responsible for attending class and being aware of when we move on to a new section. Be sure to do the review problems at the end of each chapter in Pollock – some of these problems will appear on the class exams. We also recommend that you solve the practice problems in the Schaum's outline.

COURSE SCHEDULE:

1. Introduction

Recommended

- Schaum: Ch. 1.

2. Concepts and Measurement

Readings:

- Essentials, Ch.1
- Erikson, Robert S., Norman R. Luttbeg, and Kent L. Tedin. 1991. *American Public Opinion*. 4th ed:10-13 [On electronic reserve]
- Fiorina, Morris. *Congress: Keystone of the Washington Establishment*. Ch.1. [On electronic reserve]

HW 1: Find a political science article that defines and measures a concept. Discuss possible problems of validity. What is the level of measurement? (Give the full citation for the article. Attach relevant pages from it that define and measure the concept.)

3. Descriptive Statistics

Readings:

- SPSS, Introduction, Ch.1, 2
- Grofman, Koetzle, and McGann. 2002. "Congressional Leaders 1965-96: A New Look at the Extremism Versus Centrality Debate." LSQ 2002 [On electronic reserve]
- Jacobson, Gary. 1987. The Marginals Never Vanished: Incumbency and Competition in Elections to the U.S. House of Representatives, 1952-82. AJPS. 31(1):126-141.

Recommended:

- Schaum: Ch. 2-4.

1st Data Analysis. This assignment will be described in detail in class. Use SPSS to provide descriptive statistics of supplied dataset. Discuss your results. Do not just present a table. Paper should be no more than four double-spaced pages, in addition to any tables.

4. Constructing Variables

Readings:

- SPSS, Ch. 4
- Wooley, John T. 2000. "Using Media-Based Data in Studies of Politics." AJPS. 44(1):156-173.
- Abramson, Paul R. and Ada W. Finifer. 1981. "On the meaning of Political Trust: New Evidence from Items Introduced in 1978." AJPS. 25(2):297-307.

HW 2: Find a political science article that either constructs an additive index or similar variable or uses contextual data to construct a count or similar variable. What are the strengths and weaknesses of the

construction? What is the level of measurement of the variable? (Give the full citation for the article. Attach relevant pages from it that define the construction.)

5. Research Design

Readings:

- Essentials, Ch.2
- Cover, Albert D. and Bruce S. Brumberg. 1982. "Baby Books and Ballots: The Impact of Congressional Mail on Constituent Opinion." APSR. 76(2):347-359.

HW 3: Find a political science article that uses a true experimental design as described by Pollock. Explain the design. In what ways is the design adequate or inadequate? (Give the full citation for the article. Attach relevant pages.)

6. Surveys and Sampling

Readings:

- Erikson, Robert S., Norman R. Luttbeg, and Kent L. Tedin. 1991. *American Public Opinion*. 4th ed. Ch. 2 & 3, pp. 19-42, 43-78.
- Benson, John M.. 2001. "Heard Enough." *Public Perspective*. Sep/Oct.

Exam 1

7. Assessing Hypotheses: Crosstabs

Readings:

- SPSS, Ch. 3, pp. 28-30
- Essentials, Ch. 3, pp. 48-62
- Weisberg, Herbert F., Bruce D. Bowen. *An Introduction to Survey Research and Data Analysis*. Ch. 11. pp.147-167.
- Wilcox, Clyde. 1987. "The Timing of Strategic Decisions: Candidacy Decisions in 1982 and 1984." LSQ. 12(4):565-572

2nd Data Analysis: This assignment will be described in detail in class. Using one of the provided data sets, formulate a hypothesis; provide a rationale for the hypotheses; discuss how you will operationalize the hypothesis and the strengths and weaknesses of your measures; provide a crosstab, properly percentaged to examine your hypothesis; and discuss the meaning of the crosstabs.. This is due at the beginning of class one week after we finish this topic.

8. Assessing Hypotheses: Means and Graphs

Readings:

- SPSS, Ch. 3, pp.33-50
- Essentials, Ch. 3, pp.62-72

- Parker, Glenn R. 1980. "Sources of Change in Congressional District Attentiveness." AJPS. 24(1):115-124.
- Powell, Lynda. "Constituency Partisanship in House and Senate Elections: 1972-2000." [On electronic reserve.]
- Glazer, Amihai and Bernard Grofman. 1987. "Two plus Two Plus Two Equals Six: Tenure in Office of Senators and Representatives, 1953-1983." LSQ. 12(4):555-563.

9. Controlling for a Third Variable

Readings:

- SPSS, Ch. 5
- Essentials, Ch. 4.
- Kritzer, Herbert M. and Robert B. Eubank. 1979. "Presidential Coattails Revisited: Partisanship and Incumbency Effects." AJPS. 23(3):615-626.

HW 4: Find a political science article that examines a spurious relationship, an enhancement relationship or a specification relationship. Explain and draw a diagram as shown in Figure 4-1, 4-3 or 4-5.

10. Random Sampling and Statistical Inference

Readings:

- SPSS, Ch. 6
- Essentials, Ch. 5
- Ethridge, Marcus E. 1990. *The Political Research Experience: Readings and Analysis*. Ch. 5, pp. 89-96.

Recommended

- Schaum: Ch. 7-8.

11. Assessing Hypotheses: Tests of Significance

Readings:

- Essentials, Ch. 6, pp.121-135.
- Payne, James. 1982. "Career Intentions and Electoral Performance of Members of the U. S. House." LSQ. 7(1):93-99.

Recommended

- Schaum: Ch. 9-12.

Exam 2

12. Analyzing Relationships using Measures of Association

Readings:

- SPSS, Ch. 7

- Essentials, Ch. 6, pp.135-143
- Review the use of Chi-square in the Miller and Robyn article (Ethridge Ch.1 – Excerpt 1) Topic 5 above.
- Boyett, Joseph H. 1974. “Background Characteristics of Delegates to the 1972 Conventions: A Summary Report of Findings from a National Sample.” WPQ. 27(3):469-478.
- Abramowitz, Alan I. 1981. “Choices and Echoes in the 1978 U. S. Senate Elections: A Research Note.” AJPS 25(1):112-118.

HW 5: Find a political science article that uses a measure of association. What is the hypothesis? Provide a copy of the table and statistics. Interpret the statistic. Was the use appropriate?

13. Correlation and Simple Regression

Readings:

- SPSS, Ch. 8, pp.110-124
- Essentials, Ch. 7, pp.144-158
- Lewis-Beck, Michael and Tom W. Rice. 1983. “Localism in Presidential Elections: The Home State Advantage.” AJPS. 27(3):548-556.
- Lewis-Beck, Michael and Tom W. Rice. 1982. Presidential Popularity and Presidential Vote. POQ. 46(4):534-537.
- Tufte, Edward. 1973. “The Relationship between Seats and Votes in Two-Party Systems.” APSR. 67(2):540-554
- Norrander, Barbara and Clyde Wilcox. “The Geography of Gender Power.” In Sue Thomas and Clyde Wilcox. 1998. *Woman and Elective Office*. pp.103-116.

Recommended

- Schaum: Ch. 13-14.

3rd Data Analysis: In this paper you will look at bivariate relationships. The details of the assignment will be handed out in class.

14. Multiple Regression

Readings:

- SPSS, Ch. 8, pp.124-127; Ch. 9, pp.128-133
- Essentials, Ch. 7, pp.158-160, 163-168
- Hibbing, John R. and John R. Alford. 1982. “Economic Conditions and the Forgotten Side of Congress: A Foray into US Senate Elections.” BJPS. 12(4):505-513
- Jacobson, Gary. 1999. “The Effects of the AFL-CIO’s ‘Voter Education’ Campaigns on the 1996 House Elections.” JOP. 61(1):185-194.

Recommended

- Schaum: Ch. 15.

15. Interaction Effects in Multiple Regression

Readings:

- SPSS, Ch. 9, pp.133-141
- Essentials, Ch. 7, pp.160-163
- Hibbing, John R. and Sara L. Brandes. 1983. "State Population and the Electoral Success of U. S. Senators." AJPS. 27(4):808-819.
- Campbell, James R. 1986. "Predicting Seat Gains from Presidential Coattails." AJPS. 30(1):165-183.

Exam 3

Final Data Analysis/Paper. This assignment uses multiple regression. One of the variables in the regression should be based on data that you collect and add to an SPSS data set. Specific details will be given in class.