Political Science 104 Homework #5
Due Wednesday, June 3rd, at the end of lecture

Question 1 (Hypothesis Testing in SPSS): To complete the first part of this homework you'll need to use SPSS. You can either work in the computer lab, or download the data from my website and work at home if you have access to SPSS at home.

Go to the class website and open the data for this homework. The data for this homework is survey data gathered by the American National Election Study. It consists of 7 variables gathered from 774 interviews in the month before the 2002 election. The variables are (1) a thermometer scale for approval of George W. Bush that runs from 0 to 100, with higher numbers meaning higher approval, (2) a seven-point scale measuring the survey respondent's ideology, with higher numbers meaning the respondent was more conservative, (3) a seven-point scale measuring the survey respondent's partisan identification, running from 0 for strong Democrats to 6 for strong Republicans, (4) a three-point scale on the respondent's opinion on the amount of taxes they pay (1 = don't pay enough, 2 = pay the right amount, 3 = pay too much), (5) a five-point scale on how often the respondent attends religious services, running from 0 for never to 4 for every week, (6) a 4-point scale on the respondent's opinions about the fairness of the 2000 Presidential election outcome (1 = very unfair, 2 = unfair, 3 = fair, 4 = very fair), and (7) a seven-point scale for the respondent's education, with higher numbers indicating greater educational attainment.

Use a 5% significance level when testing all hypotheses in this question.

- Suppose you had the following hypothesis: "Individuals who attend religious services more often will rate Bush higher on the thermometer scale than people who attend religious services less often." Estimate a linear regression to test your hypothesis. Based on these regression results, would you accept or reject your hypothesis? Explain why you made this decision.
- Give a plausible explanation for why ideology might cause a spurious relationship between religious attendance and approval of Bush.
- Estimate a linear regression to test your hypothesis while controlling for ideology. Based on these new regression results, would you accept or reject your hypothesis? Explain why you made this decision.
- Did your conclusion about your hypothesis change once you included the control variable? Why or why not?

Question 2 (Interpreting Journal Articles): Read the journal article "Civil Liberties vs. Security: Public Opinion in the Context of the Terrorist Attacks," by Darren Davis and Brian Silver (published in the American Journal of Political Science in 2004), and answer the following questions:

- Davis and Silver are testing a number of hypotheses about the relationship between civil liberties and threats to safety. In a sentence, state one of the hypotheses they are testing. Be sure you state your hypothesis in a way that meets all the criteria for a good hypothesis.
- What causal mechanism for this hypothesis do Davis and Silver propose?
- What are the dependent and independent variables in this hypothesis?
- How do Davis and Silver measure the dependent variable in this hypothesis? Why might content validity be a concern here?
- How do Davis and Silver measure the independent variable in this hypothesis?
- Looking at Table 3, did Davis and Silver find support for this hypothesis? Explain how you know this based on the regression results presented. Note there are 4 different regressions presented in Table 3 – be sure to tell us which regression you are talking about.
- Name one control variable (a variable included to rule out an alternative explanation) that Davis and Silver include in their regression models. How is this variable measured? What effect does this variable have on the dependent variable, and is it statistically significant?