This homework consists of three multiple-part questions, and is due Friday, March 14, by 5pm. Late homeworks will be penalized one letter grade per day (with homeworks received after 5pm that day counted as late). Due to the large enrollment in our class (approximately 90 people), we will not accept homeworks by email. Homeworks should be roughly 2 typed, double-spaced pages in length.

**Question 1:** Use the data on our class website to complete question 1.

The data for this homework is survey data gathered by the American National Election Study in the month before the 2008 election. The variables are (1) a six-point scale measuring the survey respondent’s ideology, with higher numbers meaning the respondent was more liberal, (2) a dummy variable measuring whether the respondent said they are uncomfortable with the idea of a black president (1 = yes, 0 = no), (3) a five-point scale measuring how frequently the respondent prays, with higher numbers meaning prays less often, (4) education measured in years, (5) a thermometer scale for approval of Barack Obama that runs from 0 to 100, with higher numbers meaning higher approval, and (6) a six-point scale for the respondent’s opinion on raising taxes to reduce the federal budget deficit, with higher numbers indicating greater disapproval.

- Write a hypothesis that proposes a causal relationship between two variables in this data. Explain which is the dependent and which is the independent variable in your hypothesis. (Do not use the “uncomfortable” dummy variable in your hypothesis).

- Explain the causal mechanism behind your hypothesis. Why do you believe your independent variable causes changes in your dependent variable?

- Test your hypothesis using a linear regression, and include the “uncomfortable” dummy variable as a control variable. You may also include any other control variables you think are necessary. Use a two-tailed test and a 5% level of significance for this hypothesis test. Based on these regression results, would you accept or reject your hypothesis? Explain why you made this decision.

- Explain what the coefficient on the “uncomfortable” dummy variable tells us.
**Question 2:** Go to the JSTOR archive and download the journal article “Are All Precincts Created Equal? The Prevalence of Low-Quality Precincts in Low-Income and Minority Communities,” by Matt Baretto, Mara Cohen-Marks, and Nathan Woods, published in *Political Research Quarterly* in 2009. For information on how to use JSTOR see Homework #1. In this article Baretto et al. hypothesize that voter turnout at a polling place is related to “precinct quality,” with higher quality precincts having higher voter turnout. Read the article and answer the following questions:

- How do Baretto et al. measure the dependent variable in this hypothesis?
- How do Baretto et al. measure the independent variable in this hypothesis? Why might content validity be a concern here?
- Looking at Table 7, did Baretto et al. find support for their hypothesis? Explain how you know this based on the regression results presented. Note that the regression coefficients, standard errors, and significance are listed in the second column of the table – you can ignore the “Beta” column.
- Name one control variable (a variable included to rule out an alternative explanation) that Baretto et al. include in their regression model. How is this variable measured? What effect does this variable have on the dependent variable, and is it statistically significant?

**Question 3:** Read the chapter from *Guns, Germs, and Steel* by Jared Diamond (this chapter is available on the course website). Read the chapter and answer the following questions:

- What is the dependent variable in Diamond’s study?
- Which independent variables does Diamond argue are roughly equivalent across the cases he examines?
- Which independent variable does Diamond argue does vary across the cases he examines? (You don’t need to worry about explaining the different dimensions of this variable in your answer).
- What type of small-N research method does Diamond employ in this chapter? How does this research method establish which independent variable is a probable cause for changes in the dependent variable? What does Diamond conclude in this case?