Homework 8

*This homework has been adapted from Phillip Pollock's Stata Companion to Political Analysis.*

Exercise 1:

This exercise draws its theoretical foundation from work by Ronald Inglehart. Inglehart offers a particularly elegant and compelling idea about the future of economically advanced societies. According to Inglehart, the cultures of many postindustrialized societies have been going through a value shift - the waning importance of materialist values and a growing pursuit of postmaterialist values. In postmaterialist societies, economically based conflicts - unions vs. business, rich vs. poor - are increasingly supplanted by an emphasis on self-expression and social equality. Postmaterialist societies are also marked by rising secularism and elite-challenging behaviors, such as boycotts and demonstrations. In this exercise, you will investigate Inglehart's theory.

Dataset: *world.omv*

variables:

*pmat12\_3* This is your independent variable. It is a measure of postmaterialist values, three categories: low (1), moderate (2), high (3)

You will work with three dependent variables (this means, three analyses - one for each dependent variable):

*gender\_equal3* measures gender equality (1 - low, 2 - medium, 3 - high)

*protact3* measures citizens' participation in protests (1 - low, 2 - medium, 3 - high)

*vi\_rel3*  is based on the percentage of public who say that religion is very important (1= less than 20 %, 2= 20-50%, 3= more than 50%).

In sum, higher codes on the dependent variables denote greater gender equality, more protest activity, and higher levels of religiosity.

Using pmat12\_3 as the independent variable, three postmaterialist hypotheses can be framed:

A. [fill in the blank] Gender equality hypothesis: In comparison of countries, those with higher levels of postmaterialism will have \_\_\_\_\_\_\_\_\_\_\_\_\_ levels of gender equality than will countries having lower levels of postmaterialism.

B. [fill in the blank] Protest activity hypothesis: In comparison of countries, those with \_\_\_\_\_\_\_\_\_ levels of postmaterialism will have \_\_\_\_\_\_\_\_\_\_\_\_\_ levels of protest activity than will countries having \_\_\_\_\_\_\_\_\_\_ levels of postmaterialism.

C. [fill in the blank] Religiosity hypothesis: In comparison of countries, those with \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D. Test each of the three hypotheses. Don't forget to obtain a Chi-square. In the table below, record the percentages of countries falling into the highest category of each dependent variable. Also, report the Chi-square statistic and its p-value. You should fill all grey cells with values.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dependent variable | Level of postmaterialism | | | Chi-square | p-value |
| Low | Moderate | High |
| Percentage high gender equality |  |  |  |  |  |
| Percentage high protest activity |  |  |  |  |  |
| Percentage high religiosity |  |  |  |  |  |

For the purposes of the questions below, think of your *world.omv* dataset as a random sample drawn from a population of countries.

E. Mark the following statement as true or false:

*If the null hypothesis is correct, the postmaterialism-protest activity relationship would occur, by chance, less frequently than 5 times out of 100.*

* true/false

F. Mark the following statement as true or false:

*If the null hypothesis is correct, the postmaterialism-religiosity relationship would occur, by chance, less frequently than 5 times out of 100.*

* true/false

In the questions below, when you are asked to explain your reasoning, make sure that you comment *both* on the percentages and also on the results of the Chi-square test.

G. Is the gender equality hypothesis supported?

* yes/no
* Explain your reasoning:

H. Is the protest activity hypothesis supported?

* yes/no
* Explain your reasoning:

I. Is the religiosity hypothesis supported?

* yes/no
* Explain your reasoning: