Eric Doviak

Introduction to Economic and Business Statistics

Homework #2

This assignment requires you to analyze one of the datasets that Ray Fair (1978) used to study extra-marital affairs. One dataset was assembled from a survey conducted by *Psychology Today* in 1969. The other dataset was assembled from a survey conducted by *Redbook* in 1969.

Because the *Redbook* survey only contains responses from women, we will focus on the data from the *Psychology Today* survey. (If you're interested, the *Redbook* data is also available on my website).

Neither survey attempted to obtain a representative sample, so we cannot use the survey results to draw inferences to about the US population. We can only draw inferences about these particular samples. Nonetheless, the results are interesting.

The goal of this assignment is to help you learn how to work with ordinal data. Please perform the following tasks, print your results and come to class prepared to discuss them.

1. Using the *Psychology Today* dataset, create a "dummy variable" to indicate whether or not the respondent had an extra-marital affair during the past year. To do that, go to the "Add" menu, select "Define new variable" and type:

   ```
   had_affair = ( affairs > 0 )
   ```

   in the "add variable" window that appears. That command will generate a one for respondents who had an affair and a zero for respondents who did not.

   For simplicity, we'll refer to the respondents who had an affair as "affairees" and those who did not have an affair as "non-affairees."

2. Although the "married" variable is discrete, it contains decimal places, so Gretl does not treat it as discrete. To overcome this difficulty, define a new variable:

   ```
   married1000 = married*1000
   ```

3. Using the "had_affair" variable that you just defined, create a cross-tabulation to calculate the percentage of men who had an affair and the percentage of women who had an affair.

4. Using the "had_affair" variable, construct cross-tabulations that compare the frequency distributions of:
   a. the ages of respondents who did and did not have an affair
   b. the marriage duration of respondents who did and did not have an affair
   c. the religiosity of respondents who did and did not have an affair
   d. the "marriage happiness" of respondents who did and did not have an affair

5. Why do you think:
    a. the affairees tended to be older than non-affairees?
    b. affairees tended to be married longer than non-affairees?
    c. affairees were less religious than non-affairees?
    d. affairees tended to be less happy with their marriage than non-affairees?

References

Fair, Ray (1978). "A Theory of Extramarital Affairs." *Journal of Political Economy*, vol. 86, no. 1, p. 45-61.