Homework 11: Computer Exercises Due Friday April 15 Econ 29000 Kevin R Foster, CCNY

For **Computer Exercises**, your study group should hand in a single assignment. When submitting assignments, **please include your name and the assignment number as part of the filename**. Please write the names of your study group members at the beginning of your homework.

This exercise will use the version of the CPS dataset online, CPS_hw11, which is a version of the 2010 March CPS data from the US Bureau of Labor Statistics. (It is a zipped file so first download it and then unzip before you open it with SPSS.) It collects a variety of information, which you are welcome to look through as you consider final project topics.

Use "Data\Select Cases" to choose only people with Total Wage and Salary greater than zero.

- 1. Please list the names of the people in your study group.
- 2. Use SPSS to run a simple linear regression (choose Analyze\Regression\Linear) with the dependent variable as Total Wages and Salary and the independent variable Age.
 - a. What is the estimated value for β_0 ? Is it statistically significantly different from zero?
 - b. What is the estimated value for β_1 ? Is it statistically significantly different from zero?
 - c. What is the predicted value for someone who is 25 years old? 45?
 - d. If you had not selected only people with non-zero wages, how would that change the estimates? (You can undo the "select cases" and see for yourself.)
 - e. How different would the estimates be, if you had selected people with non-zero wages and also who were "prime-age" so 25-55 years old?
 - f. Again use "select cases" to do a regression on just prime-age women. Then do a separate regression for prime-age men. What are the differences?
- 3. Next estimate a linear regression with the same dependent variable, but now add the "female" dummy variable and education variables (you can choose which ones). Interpret the regression coefficients: which are statistically significant? (You can choose whether to do prime-age or all ages, but you'll need both men and women.)