Introduction to Stata – Problem Set 1

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Submission

Students are allowed to work in groups of up to 3 people. Before the beginning of the following class on **Friday, October 24th, at 10:00h**, each group must submit a single .do file containing the code and answers to the questions (commented out) to sviola@ub.edu in this format:

- `PS#_LASTNAME_LASTNAME_LASTNAME.do`

Submissions will be graded primarily based on the correctness of the responses, but partial credit will also be rewarded where students have made a noticeable effort to solve exercises using the methods covered in class and the available Stata documentation.

Question 1

While many Stata commands automatically return a number of useful statistics, sometimes additional steps are required to perform certain post-estimation calculations such as testing for heteroskedasticity or plotting the marginal effects.

1. Using the nlsw88 example dataset installed with Stata, perform a regression which explains log wages as a function of 2 or more variables also contained in the dataset and that includes an interaction between two of the variables. Interpret the results.

2. Then, within Stata, locate the help file which lists all available post-estimation commands available after performing a basic OLS regression. Which command did you use to locate this file?

3. Finally, execute one post-estimation command which displays a table and one more which displays a graph. Explain which commands you used, what sort of information they provide and interpret the results.

Question 2

Stata offers an endless amount of customization for graphs, figures and tables, all of which can be scripted (coded) in a .do file. While, in practice, the changes you make will likely be more limited, exploring the more obscure options is useful to familiarize yourself with Stata's syntax. Below in Figure 1 is a bar chart that has been customized using the nlsw88 dataset. Using the same dataset, the "graph bar" command and its corresponding options, try to recreate the chart as similar as possible. All of the customizations were made using options from the graph bar help file in Stata.
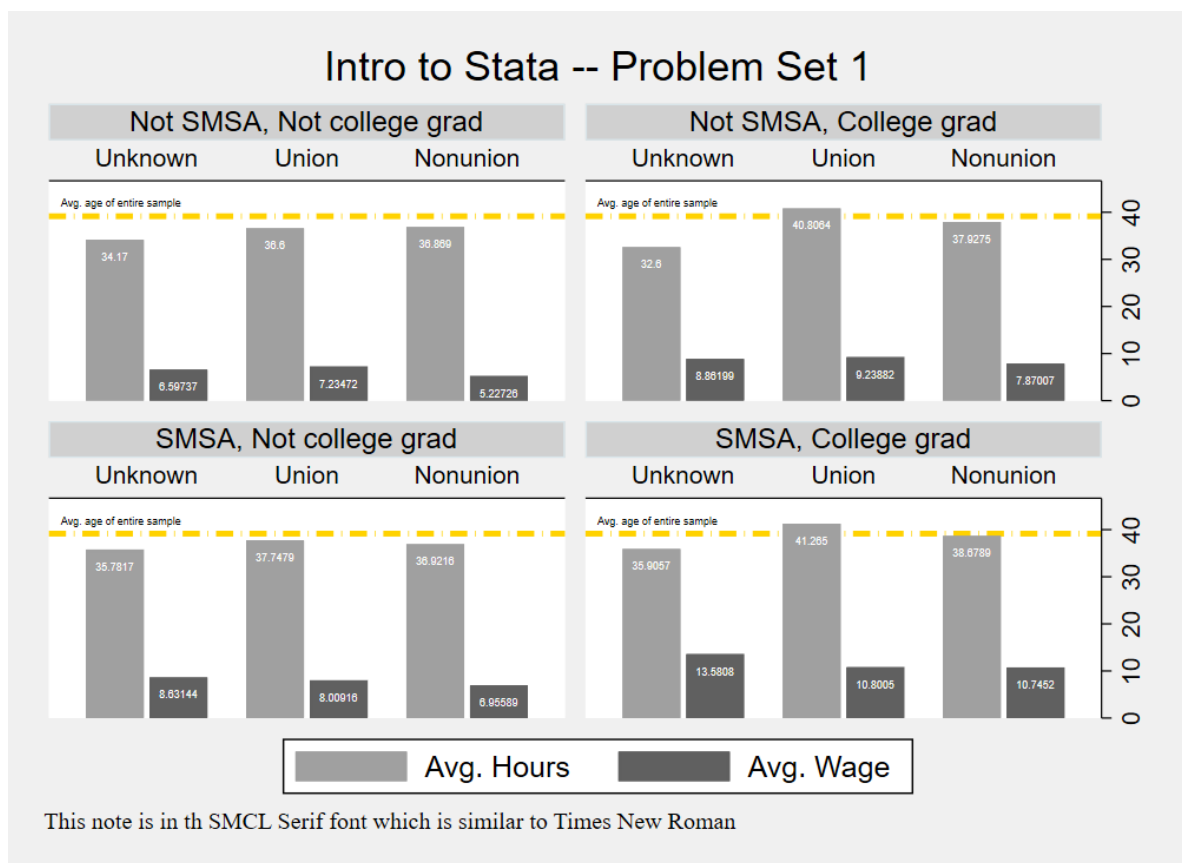
Figure 1: Bar chart to recreate

Tip: To make your code more readable, remember that you can use breaks to extend a single command over multiple lines like this:

```
graph bar something something, option1 ///
    option2 option3 ///
    option4
```