SOC 5050: Lab 03

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Directions

Please complete all steps below. This lab uses the 2011 CPS data. Your final do-file, log-file, plots, and markdown file with answers should be uploaded to your GitHub assignment repository by 4:20pm on Monday, September 12th, 2016.

Part 1: Install Stata Templates in Atom

1. In Atom, add the folder you have dedicated for class as a "project folder" (File ▷ Add Project Folder...).
2. Open the file `stata-snippets.cson`, which can be found in the `Week-03` repository, in a new tab.
3. Open the snippets preferences for Atom (Atom ▷ Snippets) and copy and paste the entire contents of `stata-snippets.cson` into the snippets preferences below the directions.
4. Close both files.
5. Close and re-open Atom.

Part 2: Stata Master Do-File

6. In a new tab in Atom, change the file's language to Stata.[1]
7. Type "head" into the first line of your new document, and choose `headMaster` from the dropdown menu that appears.[2]
8. Use the tab key to move through areas that require editing in the file.
9. When you reach the end of the file, save it to your Working directory (be sure to add the `.do` file extension) and close it.

[1] If Stata is not listed as an option, look in the preferences under Packages and see if `language-stata` is listed under Community Packages.

[2] If no menu appears or `headMaster` is not an option, double check to make sure the document language is set to Stata. If it is, there may be an issue with your Stata snippets file.

Part 3: Stata Data Do-File

10. Complete a data do-file using the template `headData` that should appear when you type "`head`" into the first line of a new Stata document in Atom. The tasks you should complete are:

    (a) For the variable `HETENURE`, recode the value for `Blank - -1` so that it is properly declared as missing in Stata.

    (b) For the variable `HUBUS`, recode the values for the three missing data categories (`-1`, `-2`, and `-3`) so that they are properly declared as missing in Stata. Use the missing data values that allow you to differentiate between different missing responses.[3] Define and apply a value label for this variable that properly labels both the missing and valid values (see the Codebook).

    (c) For the variable `HRNUMHOU`, create a new, recoded variable that is an *ordinal* measure where 0 represents no household members, 1 represents between 1 and 5 household members, 2 represents between 6 and 10 household members, and 3 represents more than 10 household members. Be sure to use the full workflow for recoding variables.

    (d) For the variable `HRNUMHOU`, create a new, recoded variable that is an *binary* measure representing large families where 0 represents less than 5 household members and 1 represents 5 or more household members. Be sure to use the full workflow for recoding variables.

[3] **Hint:** Start with `.a`.

Part 4: Stata Analysis Do-File and Execution

11. Complete a data do-file using the template `headAnalysis` that should appear when you type "`head`" into the first line of a new Stata document in Atom. Be sure to "weave" your source code and narrative (written using Markdown) so that your do-file stack creates a final deliverable for you to submit. The tasks you should complete are:

    (a) Conduct a missing data analysis using both types of tables we discussed this week. The analysis should be restricted to the variables `HETENURE` and `HUBUS`. How much missing data is there? Are these data possibly MCAR or MAR? Are there threats to generalizability that are revealed by these tables?

    (b) Create tables of both new variables you created from `HRNUMHOU` and produce the appropriate descriptive statistics given their levels of measurement. Describe your findings.

(c) Create appropriate plots for both new variables created from `HRNUMHOU` and include Markdown syntax that embeds these plots in your file when you upload it to GitHub.

12. Once you are done with these steps, debug your do-file stack so that it executes without error.

Document Details

Document produced by Christopher Prener, Ph.D. for the Saint Louis University course SOC 5050 - QUANTITATIVE ANALYSIS: APPLIED INFERENTIAL STATISTICS. See the course wiki and the repository `README.md` file for additional details.