SOC 5050: Lab 02

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Directions

Please complete all steps below. If you have not already done-so, you will need to download and extract the course data. Your final do-file, log-file, and the work and answers to Part 4 should be uploaded to your GitHub assignment repository by 4:20pm on Monday, September 5th, 2016.

Part 1: Get Started with GitHub Desktop

1. If you have not already done-so, or are using a new computer, download and install GitHub Desktop.
2. Open up GitHub Desktop and log into your GitHub.com account.
3. Using the GitHub Desktop application, clone your assignment repository, the `Core-Documents` repository, and the `Week-01` and `Week-02` repositories. Save these repositories to a dedicated space on your computer for coursework.

Part 2: Get Started with Atom

4. If you have not already done-so, or are using a new computer, download and install Atom.
5. In Atom, add the folder you have dedicated for class as a "project folder" (File ▷ Add Project Folder...).
6. Open Atom's preferences (Atom ▷ Preferences) and choose Install from the menu on the lefthand side.
7. Search for the package `language-stata` and install it.
8. Once it is installed, close Atom and restart the application.

Part 3: Stata

9. Complete the do-file provided with the lab so that it accomplishes the following tasks using the dataset `34434-0001-Data.dta` (the 2011 Current Population Survey). You'll need to copy and paste these data onto your desktop. The do-file provided it setup to copy these data into your assignment folder. The tasks you should complete are:
   (a) Open the dataset (it is renamed `lab-02-data.dta` by to do-file)
   (b) Find the mode of the variable `age`.
   (c) Find the mean, median, variance, and standard deviation of the variable `age`.
   (d) Find the range of the variable `age`.
   (e) Find the mode of the variable `race`.
   (f) Create and save a bar chart for the variable `race` using all of the options discussed this week.
   (g) Create and save a histogram for the variable `age` using all of the options discussed this week.
   (h) Create and save a box plot for the variable `age` using all of the options discussed this week.
10. Debug your do-file so that it executes without error.

Part 4: Standard Deviation by Hand

2010 Missouri Congressional Election Results

District	Population	Winner	Party	Incumbent	Turnout
1	587,000	Clay	1	1	184,779
2	706,600	Akin	0	1	265,632
3	625,300	Carnahan	1	1	203,085
4	680,000	Hartzler	0	0	225,056
5	634,000	Cleaver	1	1	191,423
6	700,000	Graves	0	1	221,912
7	722,000	Long	0	0	222,431
8	657,000	Emerson	0	1	195,999
9	683,000	Luetkemeyer	0	1	210,358

Notes: Party value labels are 0 = Republican and 1 = Democrat; Incumbent value labels are 0 = No and 1 = Yes

11. Calculate the mean and standard deviation for the variable `Population` in the table above.

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.