

SOC 4930/5050: Problem Set 02 - Descriptive Statistics

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Directions

Complete all of the following questions using the data from the `testDriveR` package. Your well-formatted R Notebook source (the `.Rmd` file) and `html` output should be uploaded to your assignments repository by 4:15PM on Monday, September 18th, 2017.

Part 1: Descriptive Statistics

Use the `gss16` data frame saved in the `testDriveR` and calculate the most appropriate descriptive statistics for the following variables. Statistics you should consider are: mode, median, mean, standard deviation, range, and inter-quartile range.

1. Keep only the following variables - `ID_`, `SEX`, `HRS1`, `INCOME16`, `RACE`, `WRKSTAT`
2. Keep only observations for respondents who work full time, i.e. where `WRKSTAT == 1`
3. Calculate the appropriate descriptive statistics for the following:
 - (a) `RACE` for full time workers - where 1 is “white”, 2 is “black”, and 3 is “other”
 - (b) `HRS1` for full time workers - the number of hours worked during the last week
 - (c) `SEX` for full time workers - where 1 is “male” and 2 is “female”

Part 2: Plotting Data

Use the same GSS data to produce the following plots:.

4. Create a bar plot using the `RACE` variable
5. Create a scatter plot of last year’s income by hours worked for full time workers with the points colored using the `RACE` variable

Rubric

Individual Questions			
Part 1		Part 2	
Question	Points	Question	Points
1	3	4	3
2	3	5	5
3	6		
<i>Points Possible</i>	12		8

Note: Partial credit possible

Notebook Formatting & RMarkdown		
Category	Details	Points
Excellent	Syntax used appropriately & without error	5
Good	Minor concerns with syntax use	3
Improvement Needed	Significant concerns with syntax	1.5
Unsatisfactory	No RMarkdown used	0
<i>Points Possible</i>		5

Literate Programming		
Category	Details	Points
Excellent	Narrative throughout with great detail	5
Good	Some narrative with inconsistent detail	3
Improvement Needed	Limited narrative with little detail	1.5
Unsatisfactory	No narrative included	0
<i>Points Possible</i>		5