SAMPLE RStudio lab assignment: descriptive statistics

Assignment instructions

During this assignment, you will learn how to use **[Variables in GSS]** page, practice creating model codes and working codes skills, and interpreting outputs.

For each variable below, you will record the following details as seen in **[Variables in GSS]** page:

1) Paste Table # and Table name,

2) Paste variable name **(do not type),**

3) Paste variable label,

4) Paste variable type,

5) Paste question wording and response categories,

6) Paste the code you run for the question,

7) Paste the output (table or graph depending on the question),

8) Interpret the outputs.

Open [Variables in GSS] page:

- **Search in the site:** Windows: `ctrl` + `K` | macOS: `cmd` + `K`
    - Type and hit “enter”: Variables in GSS
    - Or use the link in the left navigation bar (Resources)

Searching variables in [Variables in GSS] page:

- **Search in the page:** Windows: `ctrl` + `F` | macOS: `cmd` + `F`

1) Frequency table of fear variable (10 points)

Find the fear variable in **[Variables in GSS]** page and fill out the table below.

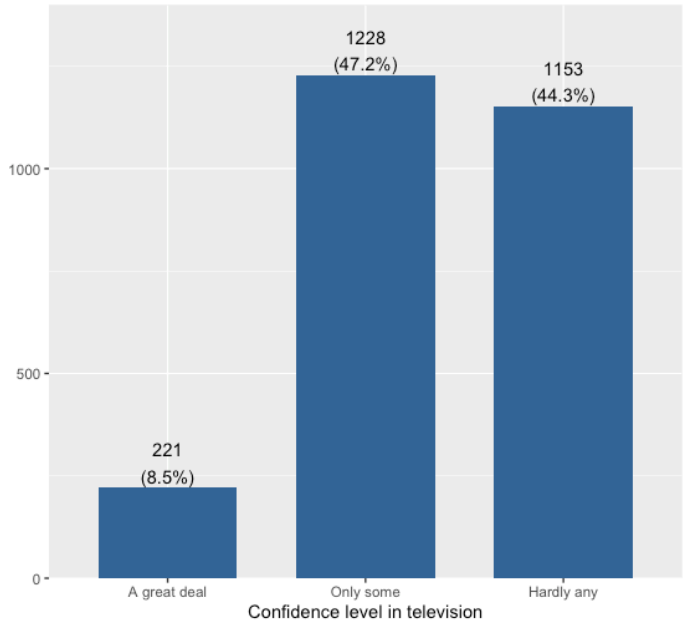
Create a frequency table. Paste the code you used. Paste the output (take a screenshot of the output, not all screen) and interpret it.

1. Table # and Table name (-1):	Table 21. Miscellaneous
2. Variable name (-1 point):	fear
3. Variable label (-1 point):	Sense of neighborhood security
4. Variable type (-1 point):	Binary
5. Question wording and response categories (-1 point):	Is there any area right around here — that is, within a mile — where you would be afraid to walk alone at night? *(1: Yes; 2: No)*
6. Code (-5):	frq(gss$fear, out = "v")
7. Output (10 points):	**Sense of neighborhood security (Variable label)** *value* | *value label* | *frq* | *raw.prc* | *valid.prc* | *cum.prc* 1 | Yes | 957 | 24.01 | 35.91 | 35.91 2 | No | 1708 | 42.85 | 64.09 | 100.00 NA | NA | 1321 | 33.14 | NA | NA *total N=3986 · valid N=2665 · $\bar{x}$=1.64 · σ=0.48*
8. Interpretation (15 points):	The sense of neighborhood variable shows that 35.91% of the respondents are afraid to walk alone at night and 64.09% of the respondents are not afraid to walk alone at night.

2) Bar graph of contv variable (10 points)

Find the contv variable in **[Variables in GSS]** page and fill out the table below.

Create a bar graph. Paste the code you used. Paste the output (take a screenshot of the output, not all screen) and interpret it.

1. Table # and Table name (-1):	Table 18. Confidence in institutions
2. Variable name (-1 point):	contv
3. Variable label (-1 point):	Confidence level in television
4. Variable type (-1 point):	Ordinal
5. Question wording and response categories (-1 point):	Would you say you have confidence in television? *(1: A great deal; 2: Only some; 3: Hardly any)*
6. Code (-5):	plot_frq(gss$contv, type = "bar", geom.colors = "#336699")
7. Output (10 points):	
8. Interpretation (15 points):	The confidence level in television variable shows that 8.5% of the respondents have a great deal of confidence in television;

	47.2% of the respondents have only some confidence in television, and 44.3% of the respondents have hardly any confidence in television.

3) Descriptive table of weekswrk variable (10 points)

Find the weekswrk variable in **[Variables in GSS]** page and fill out the table below.

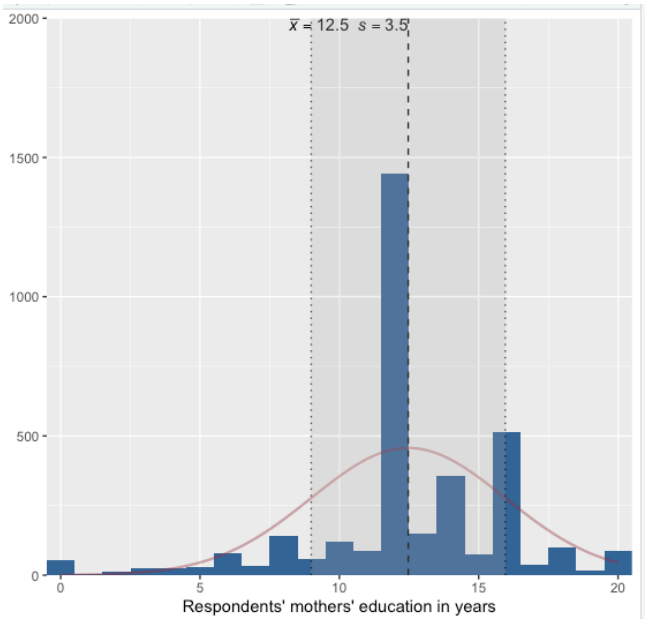
Create a descriptive table. Paste the code you used. Paste the output (take a screenshot of the output, not all screen) and interpret it.

1. Table # and Table name (-1):	Table 6. Work
2. Variable name (-1 point):	weekswrk
3. Variable label (-1 point):	Weeks respondents worked last year
4. Variable type (-1 point):	Continuous
5. Question wording and response categories (-1 point):	In the previous year how many weeks did you work either full-time or part-time not counting work around the house — including paid vacations and sick leave? *(Min: 0, Max: 52)*
6. Code (-5):	descr(gss$weekswrk, out = "v", show = "short")
7. Output (10 points):	**Basic descriptive statistics** *variable* *variable.label* *n* *NA.prc* *mean* *sd* weekswrk Weeks respondents worked last year 3844 3.56 30.10 23.04
8. Interpretation (15 points):	The weeks respondents worked last year *variable* shows the average weeks respondents worked last year of the respondents is 30.10, with standard deviation 23.04.

4) Histogram graph of maeduc variable (10 points)

Find the maeduc variable in **[Variables in GSS]** page and fill out the table below.

Create a histogram graph. Paste the code you used. Paste the output (take a screenshot of the output, not all screen) and interpret it.

1. Table # and Table name (-1):	Table 3. Respondents' parents and adolescence years
2. Variable name (-1 point):	maeduc
3. Variable label (-1 point):	Respondents' mothers' education in years
4. Variable type (-1 point):	Continuous
5. Question wording and response categories (-1 point):	What is the highest year of school your mother completed? *(Min: 0, Max: 20)*
6. Code (-5):	plot_frq(gss$maeduc, type = "hist", normal.curve = T, show.mean = T, show.sd = T, geom.colors = "#336699", normal.curve.color = "#9b2226")
7. Output (10 points):	
8. Interpretation (15 points):	The respondents' mothers' education in years *variable* shows the average years of education of respondents' mothers' is 12.5, with standard deviation 3.5.