SPSS Exercise 2
Frequency Distributions
Due:

Frequency distributions are univariate techniques used to summarize data. A frequency distribution displays the frequency with which the attributes of a variable are observed in a sample.

Objectives:
There are four objectives to this assignment, the first two involve using SPSS and the second two are about what you do with output from SPSS

1. Learn to make frequency distributions using SPSS
2. Learn how to read the output from SPSS
3. Learn to draw frequency distribution tables
4. Learn to analyze frequency distributions

SPSS Procedure:

1. Open the data set
2. From the tool bar select Analyze>Descriptive Statistics>Frequencies. See Figure 2.1. This will cause a window to open up. See Figure 2.2.
3. In the "Frequencies" window, shown in Figure 2.2, select the variable(s) for the frequency distribution from the left side of the window to the right side of the window. This can be done by highlighting the variable and clicking the arrow, double clicking the variable, or dragging it from one side to the other. For the purpose of this demonstration we will be using the variable wrkstat (Labor Force Status).
4. Once the variable(s) you are working with are on the right side of the window click the "OK" button on the lower right hand side. This will cause a window similar, but not necessarily identical, to the one in Figure 2.3 to pop up.

Reading the Output:

1. The small box on the top of the output contains:
    a. "N" (the number of respondents who responded to the survey we are working with. It should always total 2,812)
    b. Valid (the number of respondents that answered the question. In this instance 2,811)
    c. Missing (the number of respondents who for some reason did not answer the question).
    d. For the purposes of this assignment we are not concerned with this small box.
2. The larger box:
    a. The far left column list the attributes of the variable that are considered "Valid" and "Missing." There is also a label "Total" which shows the total number of Valid and Missing responses in the third column.

b. The second column from the left presents the attributes of the variable we are working with.
c. The third column displays the "Frequency," the number of respondents that selected a particular attribute.
d. The fourth column presents the "Percent," the frequency of respondents that selected a particular attribute divided by the total number of respondents in the survey (e.g. 1466/2812=0.52133 or 52.1%). Notice that if you added all the percent subtotals it would equal/total 100 as is displayed at the bottom of the fourth column.
e. The fifth column is the "Valid Percent," the frequency of respondents that selected a particular attribute divide by the total number of respondents that answered the question (see Valid in step 1b) (e.g. 1466/2811= 0.52152 04 52.1%) When reporting percent, this is the value most likely to be used.
f. The sixth column is the "Cumulative Percent," this is cumulative frequency divided by the total number of respondents in a survey. This is slightly more complicated and will be covered in more detail during lecture.

Displaying Data:

1. Output from SPSS frequency distributions should be presented in a table that displays
    a. A table number
    b. A title for the table
    c. The valid attributes being displayed
    d. The valid percent
    e. The "n" or the number of respondents in the sample (it will always be 2,812 with this data set)
    f. The source of the date (it will always be 2004 General Social Survey)
2. See Table 2.1 for a model of how a table for the variable wrkstat might look.

Analyzing A Frequency Distribution:

1. When analyzing data:
    a. Reference the table by number and title. Note that when discuss a specific table the "t" in table should be capitalized.
    b. As a rule of thumb, cite at least three data points. Note, that when analyzing a frequency distribution it is most important to discuss (valid) percent and not the frequency.
    c. Provide one sentence to summarize the findings.
2. Sample:
    a. Table 1 presents a Frequency Distribution for Respondents' Labor Force Status (workstat). Using these data I find that the over 63 percent (1,786) of respondents are employed either part-time or fulltime while approximately 3.5 percent (99) are unemployed. It is worth noting that over 14 percent of respondents were unemployed and 9.5 percent respondents indicated that they kept house. Overall, the table shows that most respondents are employed.

Assignment:

1. Produce frequency distributions for SPSS for the variables “marital” and “race”
2. Make tables using the output from the variables “marital” and “race”
3. Write a report where:
    a. Frequency distribution is defined.
    b. Analyze the tables produced.
    c. Discuss any problems encountered and how they were overcome.
    d. Include the output and tables produced

Figure 2.1.

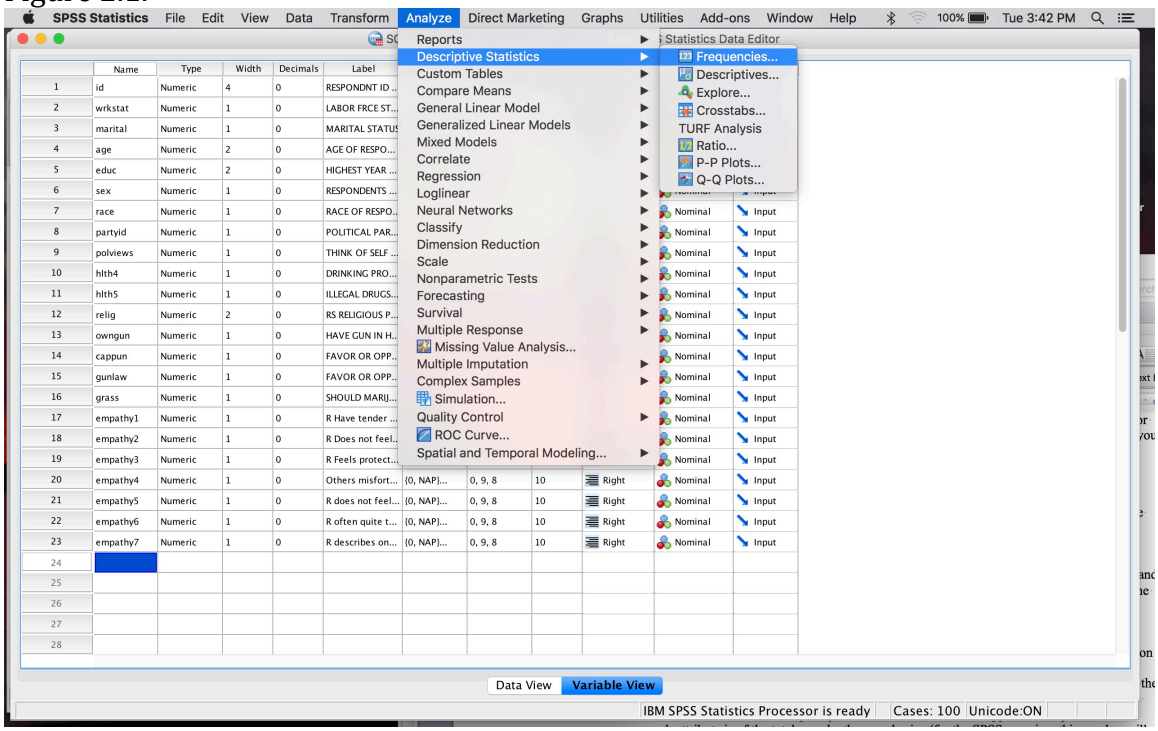

Figure 2.2

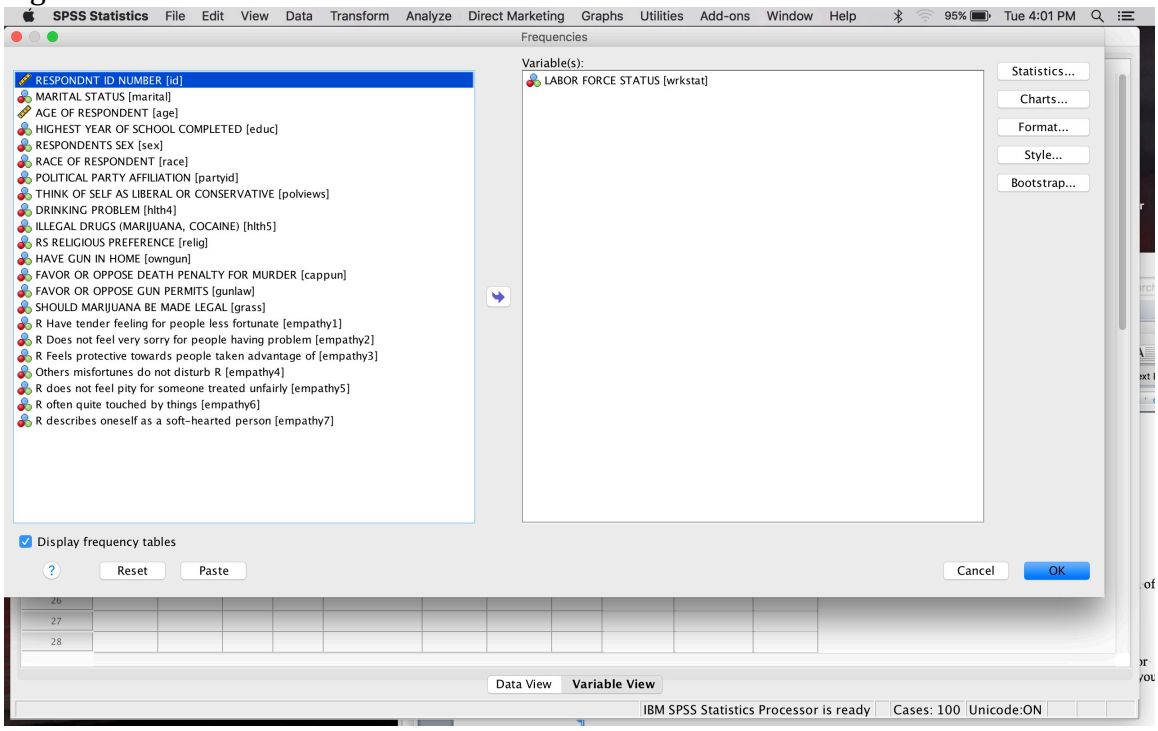

Figure 2.3

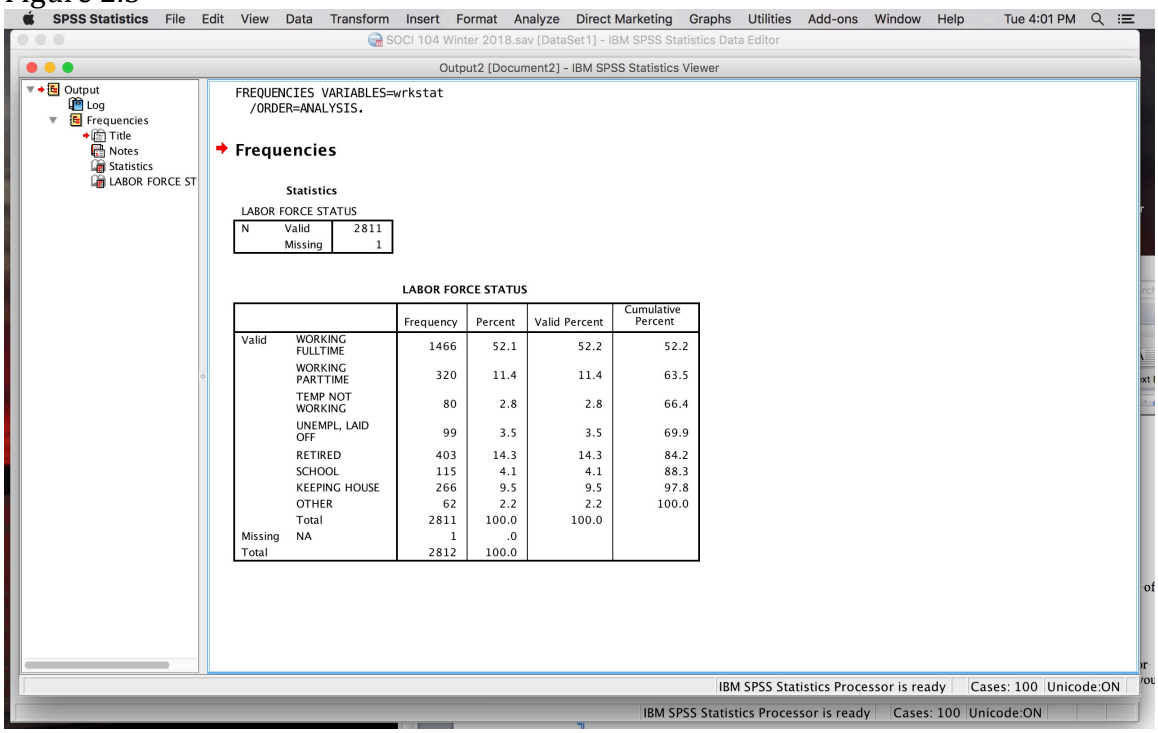

Table 2.1. Respondents Labor Force Status (wrkstat)

	Frequency	Percent
Working Fulltime	1466	52.2
Working Part-time	320	11.4
Temporarily Not Working	80	2.8
Unemployed/Laid Off	99	3.5
Retired	403	14.3
In School	115	4.1
Keeping House	266	9.5
Other	62	2.2
Total	2811	100

n=2,812

Source: 2004 General Social Survey