**Module 6 Lab**

For this lab use the following data set.

**Age Sex Education IQ income marital status depressed weight Life satisfaction**

24 F 16 117 46K S N 112 78

55 M 14 109 38K M Y 203 75

46 M 18 120 88K M N 170 85

38 F 18 115 67K D Y 123 52

29 F 16 118 52K S Y 145 60

32 M 16 112 60K S N 190 70

41 M 12 98 32K M N 170 60

29 F 12 102 31K S Y 130 48

48 F 14 108 45K M N 150 81

38 M 20 123 70K M N 165 80

41 M 16 112 59K D N 225 60

38 F 12 120 39K D Y 171 40

58 F 14 116 42K D N 145 50

35 M 12 107 22K M N 173 55

45 F 16 112 44K M Y 138 60

39 M 16 117 60K M N 174 82

The data set above describes data for 16 participants on 9 variables

The variables include participant age; sex (male = M or Female = F); education in years of education;

IQ score (IQ has a mean of 100 and is normally distributed in the population); annual income in thousands; marital status, S = single, M = married, D = divorced); if they have ever had a major depressive episode (Y = yes, N = no)weight in pounds; life satisfaction on zero – 100 scale where 0 = completely unsatisfied, 100 = completely satisfied and 50 = neither satisfied nor dissatisfied.

Your task is to describe and analyze some of the data in the data set provided, identify areas for further study, and identify and correct limitations

**1.** **Choose four of the variables** in the data set for further description and analysis. For example, you might select age, education, IQ, and history of depression (and there are good reasons to select any four of them).

*Make sure at least one of the variables you select is a nominal variable.*

**For each of the four variables you choose, name and describe each variable in terms of its percentage or mean and standard deviation. F**or example, variable 1 (record name of variable, age, sex, education, IQ, income, marital status, depressed, life satisfaction)): 25% A and 75% B, or variable 2: mean = xx.xx, standard deviation = xx.xx.

Depending on the type of variable, some should be reported as means (with standard deviations) and some as percentages.

Variable 1:

Variable 2:

Variable 3:

Variable 4:

**2.** For any two of the four variables, **report how you would describe them graphically based on what your textbook would recommend given the type of variable**,( e.g., pie chart, bar graph, histogram), and **why** you would report them that way vs some other way. You do not have to graph them. Just identify the type of graph that would be most appropriate for the two variables you choose.

Variable and graphic description 1:

Variable and graphic description 2:

3. From the four variables**, select three pairs of variables that you think might be correlated, and report the correlation coefficient for each pair.** You do not have to KNOW that they are correlated, but it should be reasonable for someone who has taken several psychology courses to think that they are. For example, we have no reason to think that age and IQ are correlated because IQ does not usually change as people age, however, IQ is likely to be correlated with some of the other variables. You can choose any method to compute correlation coefficients including using a basic calculator, Microsoft Excel, SPSS, or the following website: **http://www.socscistatistics.com/tests/pearson/Default2.aspx (Links to an external site.)**

1st pair of variables is (name the two variables):

Correlation coefficient =

2nd pair of variables is (name the two variables):

Correlation coefficient =

3rd pair of variables is (name the two variables)

Correlation coefficient =

4. Examine the correlations

Which two variables have the weakest correlation?

Which two variables have the strongest correlation?

Do any of them have a negative correlation? If yes, which one(s)

Which one of the correlations most surprised you, and why?