**EPIDEMIOLOGY 340.600: STATA PROGRAMMING**

**Lab 2**

This lab is optional; you are NOT required to complete these questions. Please use this lab as an opportunity to review the course material and prepare yourself for the homework questions. Sample responses to the lab questions will be provided separately.

1. Start Stata, open your do-file editor, write the header, and load transplants.dta.
2. Calculate the mean value of age using sum.

sum age

1. Stata should have some values in the memory as r() values. Ask Stata to display the list of the r() values.

return list

1. Display the mean value. Store the mean value as a local macro `mean’. Display the local macro `mean’.

disp r(mean)

1. Now let’s try something more useful. Calculate the mean value of age. Print the following sentence: The mean age is XX.X years. Replace XX with correct values. Round to tenths (e.g. 35.2 years).

di "The mean age is " %2.1f r(mean) " years."

1. Calculate the median (IQR) of age. Print the following sentence: The median [IQR] age is XX [XX-XX] years. Replace XX with correct values. Round to whole numbers (e.g. 37 years).

sum age, detail

di "The median [IQR] age is " %2.0f r(p50) " [" %2.0f r(p25) "-" %2.0f r(p75) "] years."

1. Calculate the standard deviation of age among patients with blood type O (abo==4). Print the following sentence: The SD of age among patients with blood type O is XX.X. Replace XX with correct values. Round to tenths (e.g. 8.2).

sum age if abo==4

di "The SD of age among patients with blood type O is " %2.1f r(sd) "."

1. Regress BMI on age and sex (using regress bmi age gender) without displaying the regression output. Print the following sentence: Per 1-year increase in age, BMI increases by X.XX. Replace XX with the regression coefficient of age. Round to hundredths (e.g. 0.74).

quietly regress bmi age gender

di "Per 1-year increase in age, BMI increases by " %3.2f \_b[age] "."

1. Now we will do the same thing, but using a program. Define a program named bmi\_age. This program will regress BMI on age and sex without displaying the regression output, and print: Per 1-year increase in age, BMI increases by X.XX. Replace XX with the regression coefficient of age. Round to hundredths (e.g. 0.74).

capture program drop bmi\_age

program define bmi\_age

quietly regress bmi age gender

di "Per 1-year increase in age, BMI increases by " %3.2f \_b[age] "."

end

1. You have all your commands in your do file, right? Run your do file from the beginning and make sure your do file does exactly the same thing.