Economics 590
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Spring 2012
Assignment 2

This assignment is designed to familiarize you with SAS operations. Its main purpose is to help you learn how to manipulate data in SAS, to transform variables, and to examine summary statistics for problems with data. We will begin this process in class and then you are expected to finish the assignment on your own. You must submit a written report on the assignment in class the day the assignment is due.

1. I will send you a sas data set which contains 13 variables. One variable (IDNO1) you can ignore. It was used to help create the data set but is not used in the current assignment. The other variables are as follows:

   MARUNION = identifies the existence and type of marital union.
   SHIFT = identifies the shift of the worker.
   HRSWORK = the number of hours worked in the previous week.
   ETHNIC = identifies the race of the worker.
   AGE = age of the worker in years.
   EDUCNEW = years of formal education.
   EDUCMETH = type of training or education.
   SEX = 1 if male; 0 if female.
   TYPWKR = identifies whether the worker is in the private or public sector.
   INC1 = average monthly income from primary job (T&T dollars).
   INC2 = average monthly income from secondary job (T&T dollars).
   INC3 = average monthly other job related income (T&T dollars).
   See the attached sheet for additional information on relevant variables.

2. Use the sas data set to read in the data and get summary statistics for the original sas data set only, using the handout on using SAS. The summary statistics will be different for each student. You must use SAS to attach a title to these summary statistics entitled "Your name – Summary Stats, original data". Attach these summary statistics to your written report.

3. Identify which variables are useful in their current form and which not. Why or why not are they useful? Please be specific and briefly explain your answer.

4. You must create at least 8 additional variables from the ones given above that would be useful in a wage regression (i.e., a regression determining job related income).

   Three of the variables must be dummy variables as follows:

- Dayshift = 1 if works on day shift; 0 otherwise

- Married = 1 if legal marriage; 0 otherwise
- Training = 1 if has had on-the-job training; 0 otherwise

You must also include the following variable:

- LOGINC = the natural logarithm of total job related monthly income

The additional 4 variables that you create should be related to income (i.e., are variables that you think affect a worker's job related income) but you can create them as you wish. Please feel free to ask for help.

For each of the 8 variables you create, carefully explain how/why they would be useful in explaining job related income.

5. Create Labels in SAS for all of the variables, including both the original and newly created variables. Now print out the summary statistics on the new data set, which includes all of the old variables and the new variables. Again, create a title for this output entitled "Your name – Summary Stats, new data". Attach these summary statistics to your written report. Carefully examine the summary statistics both for errors and for any insight they give into the data. Spend a short time in your written report using the summary statistics to describe the average worker in your data set (i.e., how much money do they make on average, what percent are female/male, etc.) Please be sure to briefly discuss all of the relevant variables, especially the 8 variables that you created.

6. Attach a copy of the SAS program that you used to do the above assignment. If you have problems with any part of the assignment, please come to me. We will spend one class period working on the assignment in class.

The Assignment is due in class February 2.

Variable Definitions: Assignment 2 ECO 590 - Spring 2011		
Variable	Value	Explanation
MARUNION	1	Never Married
	2	Married but Separated
	3	Partner but Separated
	4	Legal Marriage
	5	Common Law Marriage

		8	Not Applicable
		9	Not Stated
SHIFT		1	Morning
		2	Afternoon
		3	Day
		4	Night
		5	Long-Shift
		6	Alternate-Shift
		7	Don't Work
		8	Not applicable
		9	Not stated
ETHNIC		1	African
		2	Indian
		3	Chinese
		4	Syrian-Lebanese
		5	White
		6	Mixed
		7	Other
		9	Not Stated
EDUCMETH		1	on the job training
		2	private study
		3	secondary school
		4	Y.T.E.P.P (govt program)
		5	Vocational/Trade/School
		6	Technical Institute
		7	Other Institutional Training
		8	University

		10	Other
		99	Not Stated
TYPWKR		0	Statuatory Board (Govt)
		1	State Enterprise
		2	Central or Local Govt
		3	Private Enterprise
		4	Unpaid Worker
		5	Learner/Apprentice
		6	Own Account Worker
		7	Employer
		8	Not applicable
		9	Not stated