Lesson 6

PROC Report, Ttest, Chisq Test

Producing Output with PROC Report

The REPORT procedure shares features with PRINT, MEANS, TABULATE, and SORT procedures and DATA step. PROC REPORT can be complex.

PROC REPORT data= SAS-data-set *options* **;**
COLUMNS variable_1 …. variable_*n***;**
DEFINE variable_1**;**
DEFINE variable_2**;**
. . .
DEFINE variable_*n***;**
COMPUTE *blocks*
BREAK … ;
RBREAK … ;
RUN;

COLUMNS statement defines which columns appear in the report, and their order.
DEFINE statements declare how variables are to be used in the report.
COMPUTE blocks allow calculations to be performed in the report.
BREAK / RBREAK statements allow summarization and some kinds of formatting at certain places in the report.

PROC TTEST

The TTEST procedure performs *t* tests for one sample, two samples, and paired observations. The one-sample *t* test compares the mean of the sample to a given number. The two-sample *t* test compares the mean of the first sample minus the mean of the second sample to a given number. The paired observations *t* test compares the mean of the differences in the observations to a given number.

PROC TTEST DATA=*SAS-data-set* < options > **;**
CLASS variable **;**
PAIRED variables **;**
VAR variables **;**
BY variables **;**
FREQ variable **;**
WEIGHT variable **;**
RUN;

Options in the PROC TTEST statement you may use

ALPHA=*p* specifies that alpha level for confidence intervals ALPHA=0.05.

H0=*m* requests tests against *m* instead of 0 in all three situations (one-sample, two-sample, and paired observation *t* tests). By default, PROC TTEST uses H0=0.

Counting Your Data with PROC FREQ

The most obvious reason for using PROC FREQ is to create tables showing the distribution of categorical data value. For one variable, a frequency table is a simple list of counts, they are called one-way frequencies. When you combine two or more variables, the counts are called two-way, three way, and so on frequencies;

PROC FREQ Options1;

TABLE var1*var2 / Options 2 ;

WEIGHT count; (Only if your data have counting)

RUN;

Options 1: DATA = dataname

NOPRINT Suppresses all displayed output

ORDER= Specifies the order for reporting variable values

PROC FREQ

The most common options appear after a slash (Option2) in the TABLES statement include

Chisq	Call for Chi-Square Test statistics
Fisher	Call for Fisher's exact test statistics
MISSING	includes missing value in frequency statistics
NOCOL	do not print column percentage
NOROW	do not print row percentage
NOPERCENT	do not print total percentage
OUT = data-set	output statistics to a named SAS data set