BRCA 2 Genomic Data Set

File Edit View Data Transform Analyze Graphs Utilities Window Help

5 :

	base	count	var	var	var	var	var	var	var	var	var	var	var	var	var	var	var	var	var	var
1	A	38514																		
2	C	24631																		
3	G	25685																		
4	T	38249																		

Data View / Variable View /

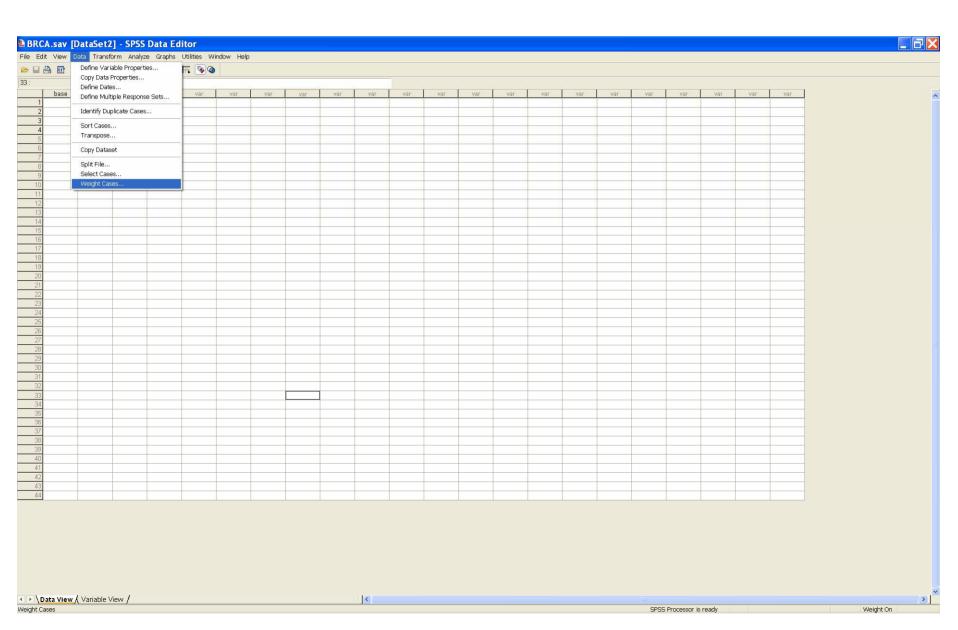SPSS Processor is ready   Weight On
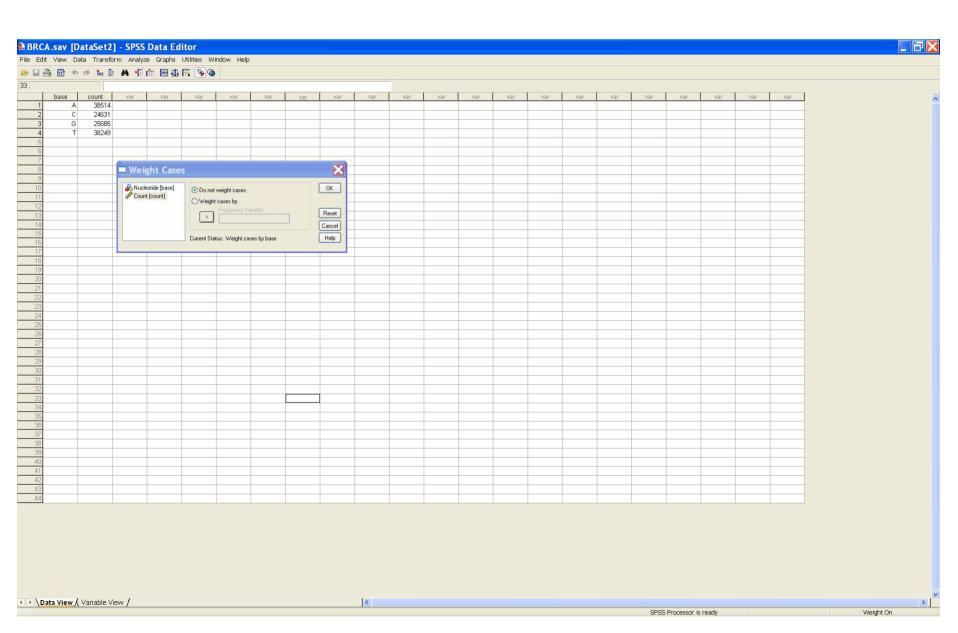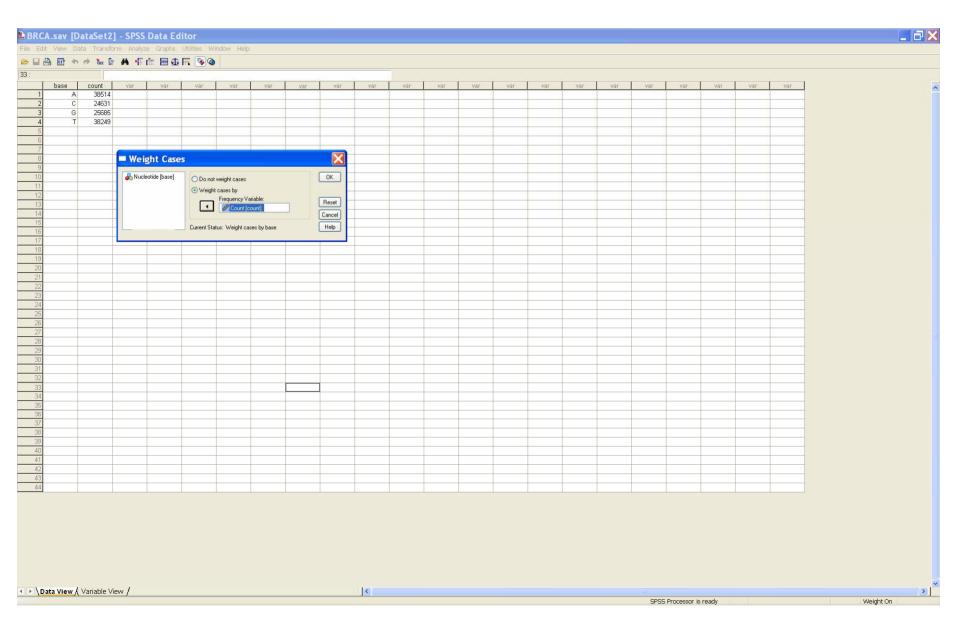
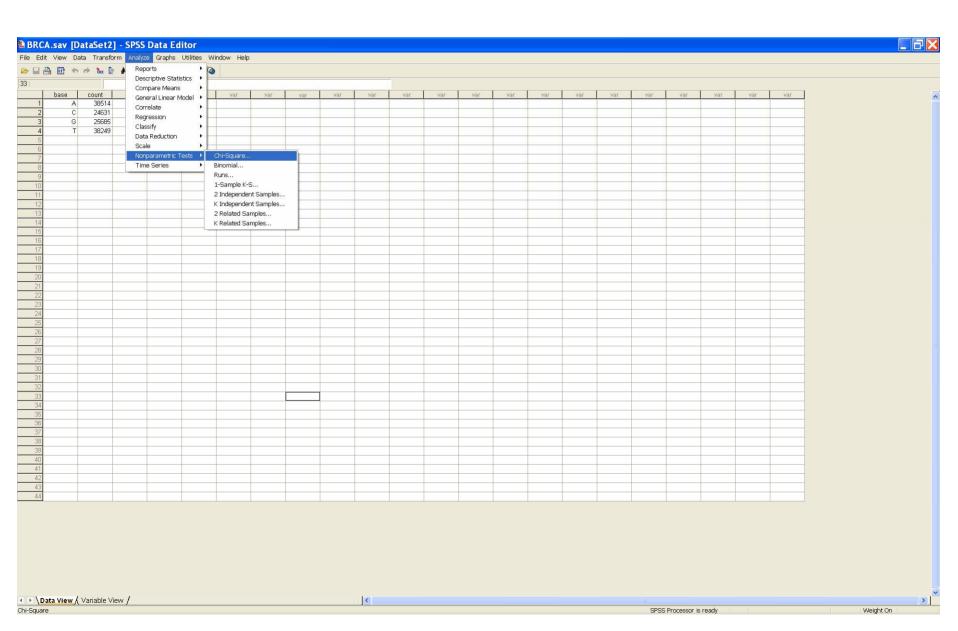## Use the *Data*, *Weight Cases* pulldown selections to define the table

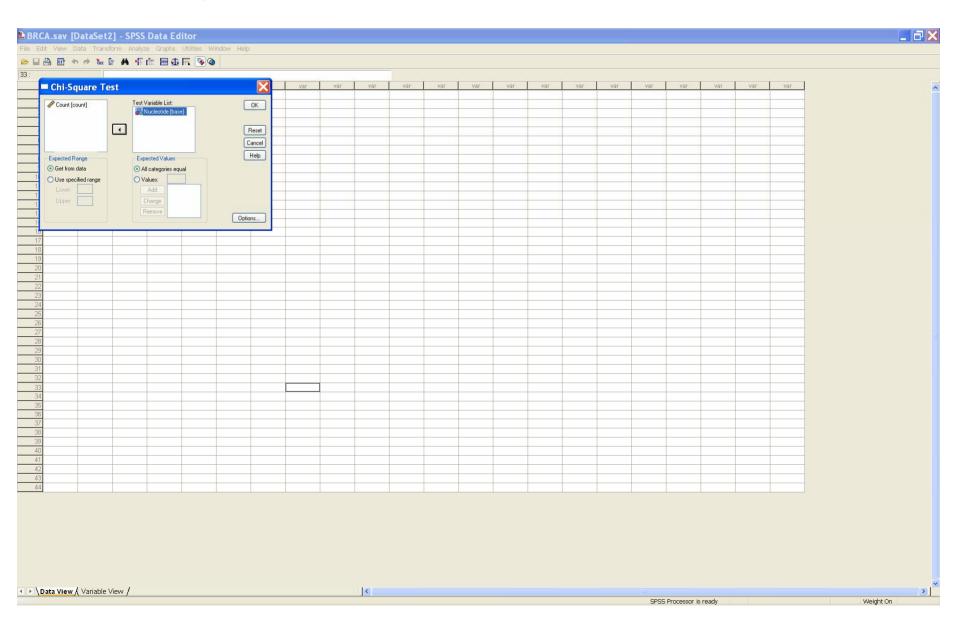# The dialog gives you the option to define the counts

Select the *Weight cases by* toggle, and pass the **count** variable into the *Frequency Variable* box

Use *Analyze*, *Nonparametric Tests*, *Chi-Square* pulldown selections

Pass the **base** variable into the *Test Variable* List, and click OK. here we
test against the probability distribution with all probabilities equal.
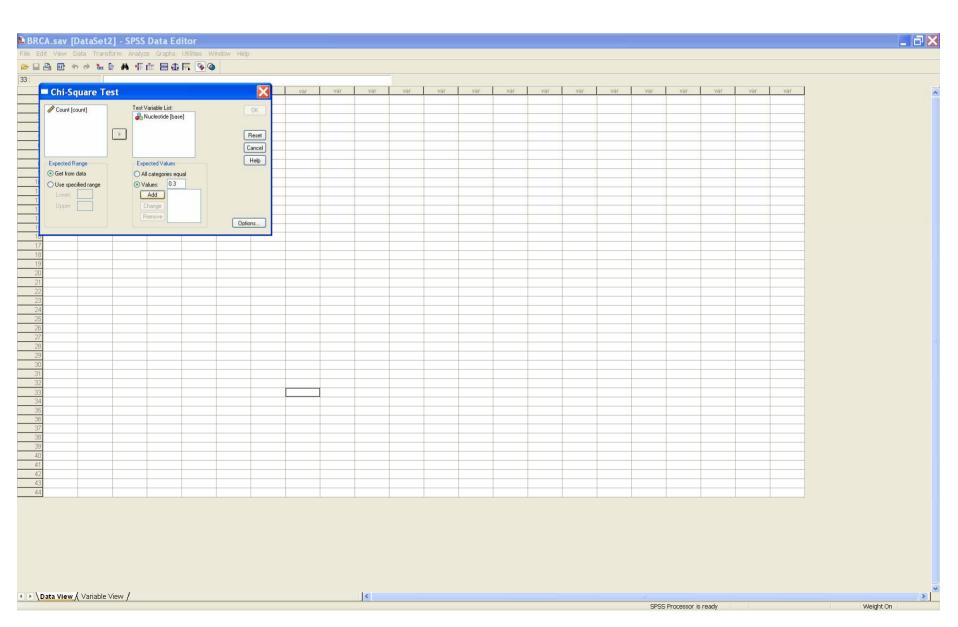
The results are computed.

Nucleotide

	Observed N	Expected N	Residual
A	38514	31769.8	6744.3
C	24631	31769.8	-7138.8
G	25685	31769.8	-6084.8
T	38249	31769.8	6479.3
Total	127079		

Test Statistics

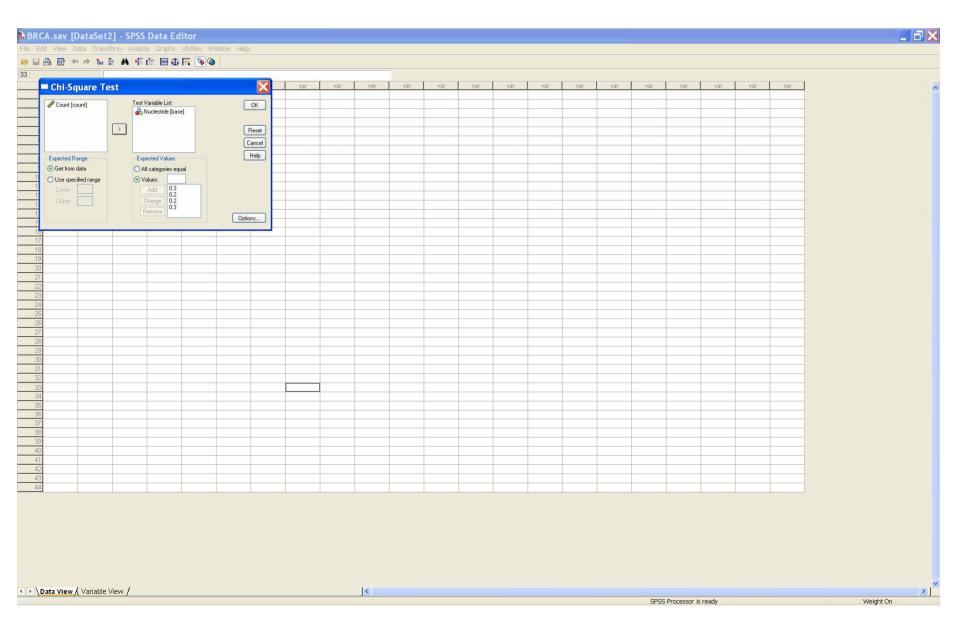|	Nucleotide
Chi-Square[a]	5522.597
df	3
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5.
The minimum expected cell frequency is 31769.8.

To test against a different set of probabilities, use the *Expected Values* toggle

We test against the probability distribution we probabilities (0.3 ,0.2,0.2,0.3).
We type these values successively into the *Values* box, and click *Add*
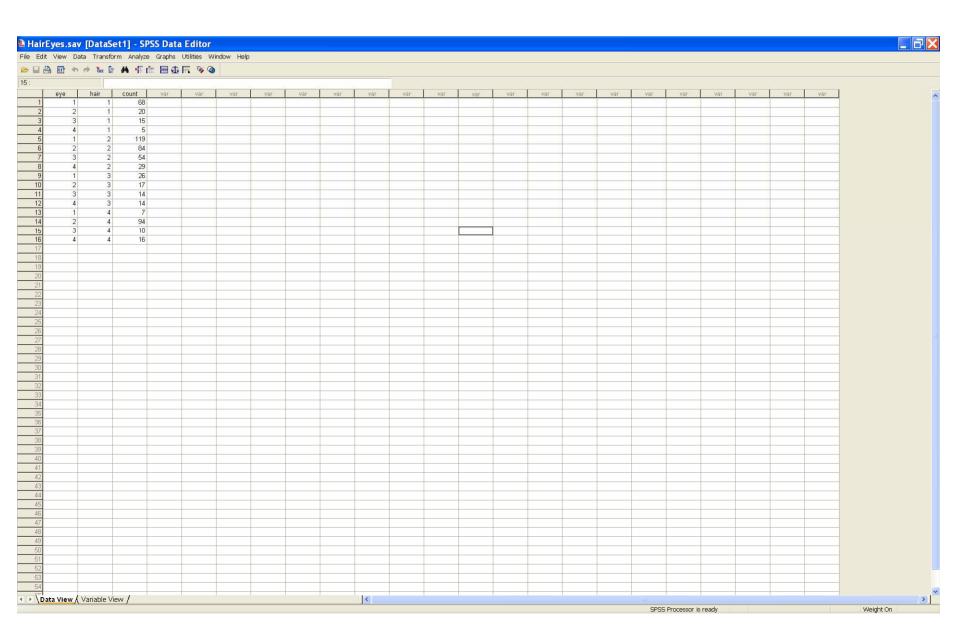
The new results are produced.

Nucleotide

	Observed N	Expected N	Residual
A	38514	38123.7	390.3
C	24631	25415.8	-784.8
G	25685	25415.8	269.2
T	38249	38123.7	125.3
Total	127079		

Test Statistics

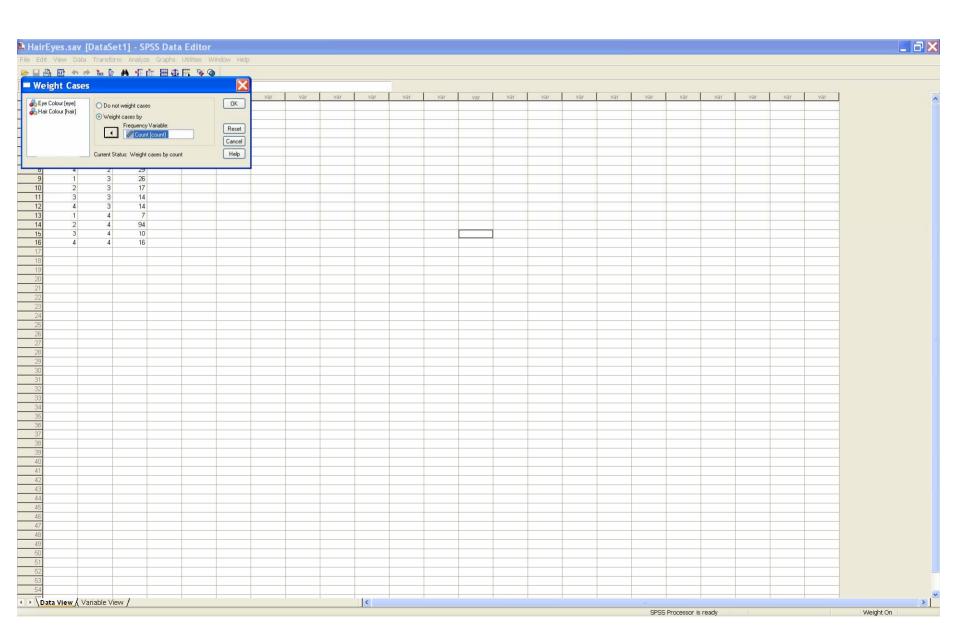|	Nucleotide
Chi-Square[a]	31.492
df	3
Asymp. Sig.	.000

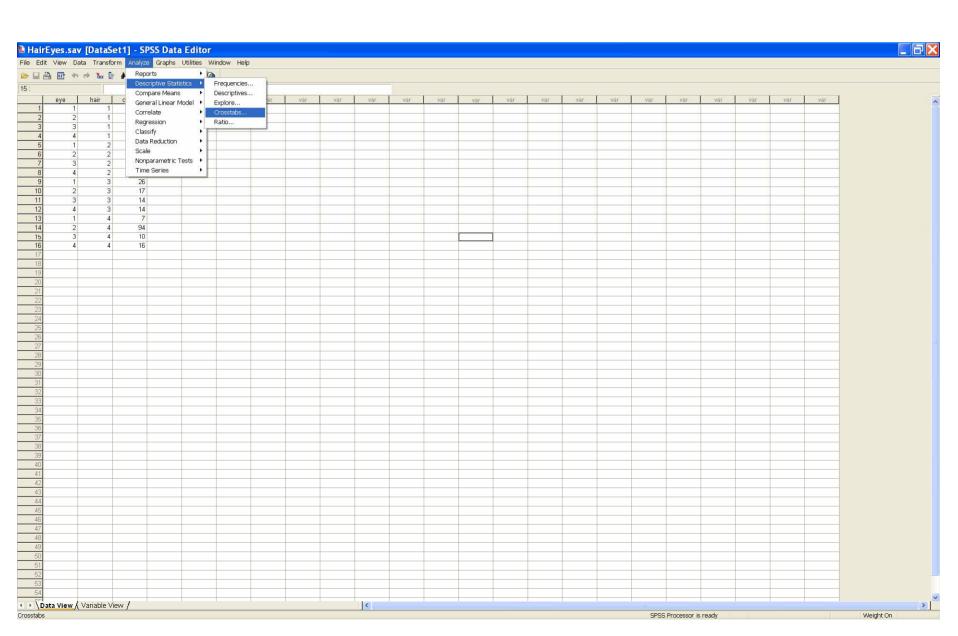[a] 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 25415.8.

The Eye and Hair colour data set.
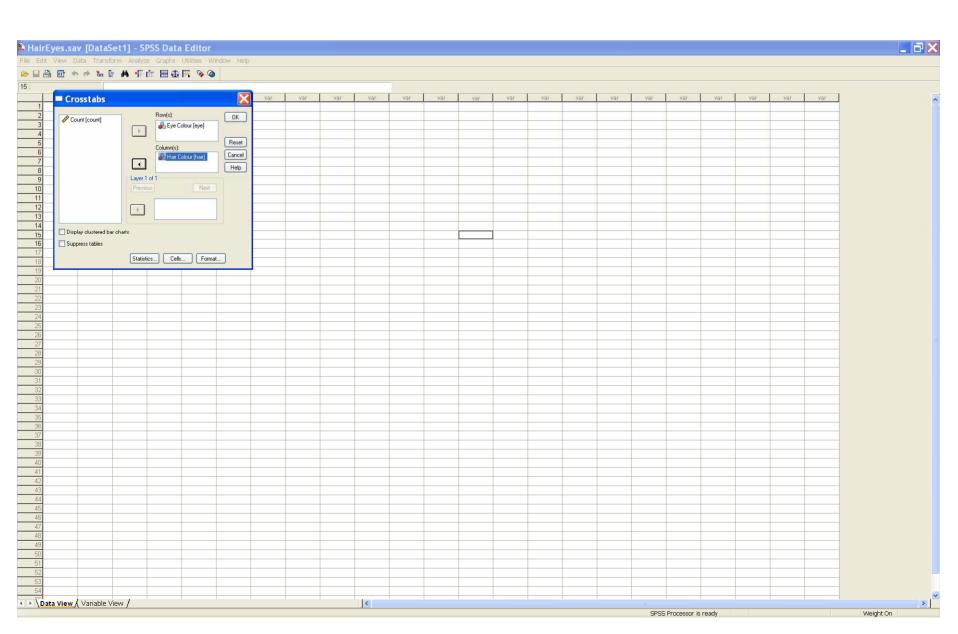
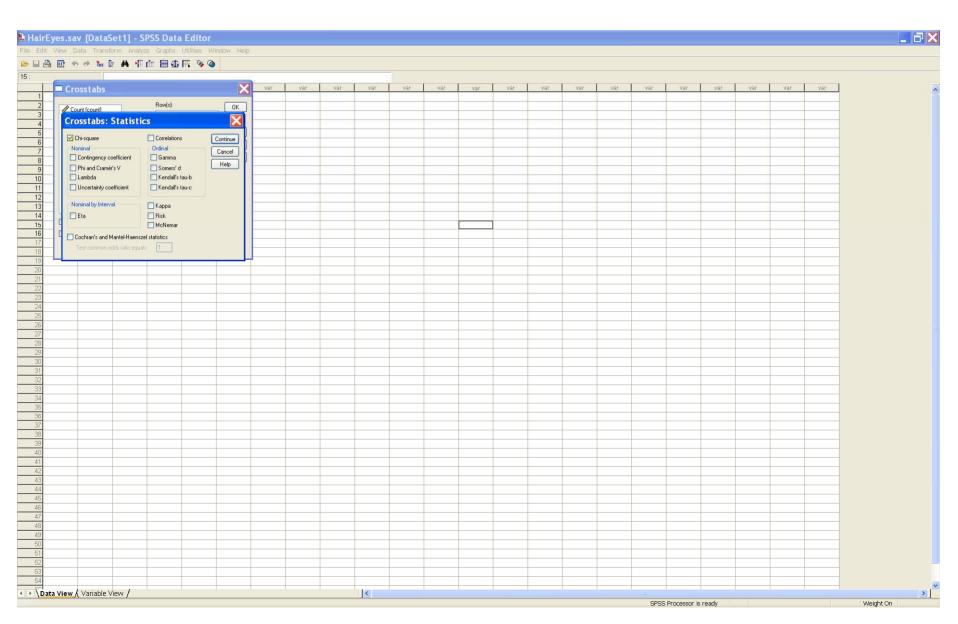Use the *Data*, *Weight Cases* pulldown selections to define the table

Use the *Analyze*, *Descriptive Statistics, Crosstabs* pulldown selections

Pass **eye** into the *Row(s)* list, and **hair** into the *Column(s)* list

Click the *Statistics* button on the *Crosstabs* dialog, and select *Chi-square.*
Click *Continue*, then *OK.*

The results are produced.

Eye Colour * Hair Colour Crosstabulation

Count

		Hair Colour				Total
		Black	Brown	Red	Blond	
Eye Colour	Brown	68	119	26	7	220
	Blue	20	84	17	94	215
	Hazel	15	54	14	10	93
	Green	5	29	14	16	64
Total		108	286	71	127	592

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	138.290[a]	9	.000
Likelihood Ratio	146.444	9	.000
Linear-by-Linear Association	28.292	1	.000
N of Valid Cases	592		

[a] 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.68.