```
/*  SAS program for testing homogeneity of multinomial  */
/*  proportions.  67 male and 67 female university      */
/*  sports participants were asked about their reasons  */
/*  for being involved in sports.  HH:  high social     */
/*  comparison/high mastery, HL:  high social           */
/*  comparison/low mastery, etc.                        */

options nocenter ls=72;
data;
  input sex $ reason $ y;
  cards;
  f hh 14
  f hl 7
  f lh 21
  f ll 25
  m hh 31
  m hl 18
  m lh 5
  m ll 13
;
proc freq;
tables sex*reason / chisq expected;
weight y;
run;
```

The FREQ Procedure

Table of sex by reason

sex reason

Frequency Expected Percent Row Pct Col Pct	hh	hl	lh	ll	Total
f	14 22.5 10.45 20.90 31.11	7 12.5 5.22 10.45 28.00	21 13 15.67 31.34 80.77	25 19 18.66 37.31 65.79	67 50.00
m	31 22.5 23.13 46.27 68.89	18 12.5 13.43 26.87 72.00	5 13 3.73 7.46 19.23	13 19 9.70 19.40 34.21	67 50.00
Total	45 33.58	25 18.66	26 19.40	38 28.36	134 100.00

Statistics for Table of sex by reason

Statistic	DF	Value	Prob
Chi-Square	3	24.8978	<.0001
Likelihood Ratio Chi-Square	3	26.0362	<.0001
Mantel-Haenszel Chi-Square	1	16.2249	<.0001
Phi Coefficient		0.4311	
Contingency Coefficient		0.3958	
Cramer's V		0.4311	

Sample Size = 134