

Table 9.13

Calculating the Chi-Square for Ideology by Race

<i>Cells</i>	f_x	<i>Row Proportion</i>	<i>Column n</i>	$E(X)$	$f_x - E(X)$	$[f_x - E(X)]^2$	$\frac{[f_x - E(X)]^2}{E(X)}$
Liberal, White	253	0.3	906	271.800	-18.800	353.440	1.300
Liberal, Black	108	0.3	309	92.700	15.300	234.090	2.525
Liberal, Hisp.	96	0.3	340	102.000	-6.000	36.000	0.353
Liberal, Other	28	0.3	64	19.200	8.800	77.440	4.033
Mod., White	240	0.316	906	286.296	-46.296	2143.320	7.486
Mod., Black	117	0.316	309	97.644	19.356	374.655	3.837
Mod., Hisp.	137	0.316	340	107.440	29.560	873.794	8.133
Mod., Other	17	0.316	64	20.224	-3.224	10.394	0.514
Cons., White	413	0.385	906	348.810	64.190	4120.356	11.813
Cons., Black	84	0.385	309	118.965	-34.965	1222.551	10.277
Cons., Hisp.	107	0.385	340	130.900	-23.900	571.210	4.364
Cons., Other	19	0.385	64	24.640	-5.640	31.810	1.291

$$\chi^2 = \Sigma = 55.926$$

$$\text{d.f.} = (4 - 1)(3 - 1) = 6$$

$$\text{prob.} < 0.001$$