

Figure 14.3

SPSS Screenshot of Observed and Expected Frequencies for Chi-Square Test of Goodness of Fit

PoliticalAffiliation

| | Observed N | Expected N | Residual |
|-------------|------------|------------|----------|
| Democrat | 22 | 28.0 | -6.0 |
| Republican | 22 | 16.8 | 5.2 |
| Independent | 12 | 11.2 | .8 |
| Total | 56 | | |

Observed N:

Number of responses in each category (OF) as well as the total number of responses

Expected N:

Expected number of responses in each category (EF)

Residual:

Difference between the observed and expected frequencies (OF - EF)

Test Statistics

| | PoliticalAffiliation |
|-------------|----------------------|
| Chi-square | 2.952 ^a |
| df | 2 |
| Asymp. Sig. | .229 |

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 11.2.

Chi-square: Obtained $\chi^2 = \sum \frac{(OF - EF)^2}{EF}$

df: degrees of freedom;

$C - 1$, where C = the number of categories

Asymp. Sig. The probability of obtaining a χ^2 this extreme or more extreme if the null hypothesis is true;

Reject H_0 if $p < \alpha$