

Technical Paper 30

Chi-square

- A. Test to compare observed frequencies with expected frequencies.
- B. Chi-square is applicable to nominal scale data.
- C. Assumptions
 - 1. Random samples
 - 2. Independent samples
 - 3. No more than 20% of the expected values are less than 5 and none of the expected values are less than 1.

$$X^2 = \sum_{i=1}^k \frac{(f_i - \hat{f}_i)^2}{\hat{f}_i}$$

$$f_i = \textit{observed}$$

$$\hat{f}_i = \textit{expected}$$