**Computing Chi-Square Using Percentages (or Proportions)**[[1]](#footnote-1)

Since percentages (and proportion) are independent of sample size (45% is still 45% whether computed on a sample of 25 or a sample of 2,500), the chi-square computed from percentages (or proportions) needs to be “corrected” to reflect sample size.

The correction is rather simple. Letting N be the sample size.

The correction for proportions is:

Corrected Chi-square = N x Computed Chi-Square.

The correction for percentages is:

Corrected Chi-square = (N/100) x Computed Chi-Square.

An Excel demonstration is available here: [Excel Demo](file:///C%3A%5COlson%20WebPages%5Colson%5CEDL7150%5CComponents%5CExcel%20demonstrations%5CExcel%20Demostration%20Correcting%20Chi-Square%20for%20Percentages%20or%20Proportions.xls),

1. Special thanks to Richard C Sprinthall (2007). *Basic Statistical Analysis*, 8th Edition. Pearson Education Inc. (pp 381-382). [↑](#footnote-ref-1)