

AGLO (Average Global Odds Ratio)

Ildefonso Marqués Perales

University of Seville

What is our aim?

To develop a computer package that computes the AGLO (Average Global Odds Ratio) statistic developed by Cox, Jackson & Lu (2009) for ordinal square contingency tables. This is based on the calculation of the means of the log-Odds ratios of two contingency tables and their corresponding errors. Given these and their respective means, one can proceed to the calculation of the contrast between these tables.

Where?

This index will be programmed in STATA and R, perhaps the two most widely distributed statistical software.

What can it be used for?

This statistic can be used to compute the variation between various income decile tables, status levels and/or years of education, to give just a few examples.

What's makes this interesting and innovative?

To date, there is no program that allows us to perform this calculation. Compared to traditional logistic models, it offers greater parsimony and flexibility, that is, fewer constraints. However, we propose two important improvements. First, we will develop a weight that allows us to consider the size of the population. With this, we intend to provide the index with greater versatility since we can weigh the barriers that occur between the different categories. Second, we give the possibility to calculate this average for both the Global Odds Ratio and the Local Odds Ratio, which in some cases may be more realistic than the global Odds.

References

Cox, D. R., Jackson, M. & Lu, S. (2009). "On Square Ordinal Contingency Tables: A Comparison of Social Class and Income Mobility for the Same Individuals". *Journal of the Royal Statistical Society (Series A)*, 172: 483- 493.