GOOD SMOOTHING

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One of the most influential Bayesians in the analysis of categorical data was I. J. Good. One problem addressed by Good in many papers was the treatment of tables with sparse counts. Good's famous 1967 JR.SS paper on testing for equiprobability is reviewed with a focus on the smoothing problem. Following Good's strategy, Bayesian procedures for smoothing proportion and two-way contingency table data are described. These ideas are generalized to simultaneously estimate proportions and odds ratios in a data mining application.