Section 5.3 and 5.4 review

Use the output from the Section 5.3-5.4 computer exercise to answer the following questions.

1. Based on the analysis for the additive model for treatment and city, are either of these factors significant?

2. Confirm the Type III analysis above. Use either the likelihood or deviance output from each of the models with only one factor present to compare to the same statistics from the model with both factors present to construct \( \chi^2 \) test statistics. Do you obtain the same results provided by the Type III output?

3. Model parameters are actually conditional logits assuming the levels of other model factors are held fixed. Interpret the parameters for treatment from the additive model for treatment and city in this context.

4. Interpret the output for the Cochran-Armitage trend test from your SAS output. Is there a linear trend? Square the Z test statistic and test whether the trend model shows any evidence of lack of fit compared to the factorial model.