

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 by “hand”. Use the likelihood and deviance output from the models with only one factor present to compare to the same statistics from the model with both factors present to construct χ^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 in this context.
4. Interpret the output for the Cochran-Armitage trend test from your SAS output. Is there a linear trend? How does the trend model compare to the factorial model—is there evidence of lack of fit for the linear trend?