

LING82100: homework 7

(Due 5/6)

This assignment continues analysis of Labov's department store study from last week.

1 Estimated means

Using the model coefficients you computed in the previous week, report the estimated mean probability of (r) use at each department store.

What to turn in

The estimated mean of (r)-use for each department store.

Hints

- Do not forget to include the intercept term when estimating the mean probabilities.
- Spot-check your work by computing the empirical—rather than estimated—(r) probabilities for each department store, which should be close to the estimated probabilities.

2 Post-hoc tests

Apply the Tukey HSD test to compare the three department stores' rates of (r).

What to turn in

Report p -values for each of the three post-hoc comparisons; if there is a significant difference, indicate the direction using '<'; for instance, if Sak's 5th Ave. has significantly more (r)s than either S. Klein's or Macy's—you might write "S. Klein's < Sak's 5th Ave. ($p = \dots$)."

Hints

- Use can either use TukeyHSD or the functions from the `multcomp` library; both are fine.
- Spot-check your work by referring to the answers from the previous section.