EXERCISES SESSION 13

The topic of this last lab session on discrete choice analysis is forecasting. Choose the best model that you have specified during the lab sessions so far to work with today.

Forecasting

1. Choose a scenario you want to test. For example, test the effects of change in costs of alternatives across different socioeconomic segments.

2. For each scenario, forecast the shares for the different market segments and compare with the original scenario.

Hint: to do this you will have to:

1. Estimate the parameters of your model using `biogeme`.

2. Use `biosim` to obtain the probabilities in the base case.

3. If you want to test for the sensitivity to an increase of price of public transport, you should edit the file `myModel_res.mod` in the section *[Expressions]*. If the cost of public transport is called *cost_pt*, you should write *cost_pt_2=cost_pt*2* and use this new variable in the utility function of public transport. Then you can recompute the market shares in this new scenario using `biosim`. It is very important NOT to re-estimate the model (this is, do not use `biogeme` again), as the parameters have already been estimated in the first step. You will obtain a new file with probabilities and you can re-compute the market shares from it. By comparing it with the base case you will find the effect on the market shares of multiplying the price of public transport by 2.

4. Repeat this analysis for different shifts in public transport price.

Value of time

1. Please analyse value-of-time for different population segments, e.g. region, age, trip purpose.

mbi/afa-ek