EPFL
ENAC TRANSP-OR
Prof. M. Bierlaire

Mathematical Modeling of Behavior
Fall 2015/ 2016

EXERCISES SESSION 6

The purpose of this lab is to improve the Multinomial Logit (MNL) model that you specified during the exercises session 5 by applying a socio-economic segmentation. You will work with the *Airline Itinerary Choice (Boeing)* dataset.

Question
Consider the best model that you obtained at the end of the exercises session 5 and perform the following tasks:

1. Try a socio-economic segmentation of the constant, which is equivalent to adding socio-economic parameters directly to the utilities. Is this segmentation significant?
2. Try a socio-economic segmentation of attributes of the alternatives one-by-one. Remember the difference between discrete and continuous segmentations. Are your segmentations significant?
3. Try a socio-economic segmentation of all parameters. How can you test if this segmentation is significant? Is a socio-economic segmentation of all parameters relevant?
4. Improve the model that you developed during the exercises session 5 using the results of the segmentations you tried above.

---

mbi/ ek/ ana