

The FHWA Travel Model Improvement Program Workshop over the Web – Travel Model Estimation

This workshop introduces the development of model estimation data sets, the structures of the various model components, and the procedures for estimating models. At the end of the series, participants will be able to better manage model development done for them by others (e.g., consultants) and to understand and evaluate the results.

Questions and Answers during Session 5

Q: What would IV and DV be in the cross classification model?

A: the IVs could be Household size, # autos, income etc. The DVs would be trip productions.

Q: The trip and flow is calibrated and fit, do we need to change gamma parameters?

A: If you compare your trip length distribution to observed data and find the predicted data to be reasonably in agreement to the observed data, there is no need to change anything.

Q: What data needed to determine gamma function parameters? 10 years old gamma parameters are still in use, is it ok?

A: Again, it is important to get some observed data and understand the prevalent trip length distribution patterns. This will tell you how much change is required.

Q: TLD survey

A: Yes this is obtained from the household surveys, because you will know the trip ends from the survey, and you can derive the congested times/distances between those pairs. You can then summarize the trip length distribution and compare it to what your model predicts. Then, you can adjust the gamma parameters to match the predicted and observed TLD.

Q: I have not looked into CTPP closely (to many fields); can the TLD survey be derived from CTPP?

A: Well Yes. But only for work trips though. There are no data available in CTPP for non-work trips.

Q: What effect does calibration and changes in parameter estimates have on extraneous variable effects on the model (randomness in model)?

A: Can you clarify?

Q: Sure. When you go in and make changes to the model parameters, does that change the randomness in the model...those extraneous factors that cannot be modeled. They account for some of the variability in the observed vs. model results.

A: Yeah. But in a sense you adjust the parameters in response to the random effects that are now more predictable. So, to that extent, you do change the randomness.

Q: May be we can further discuss offline sometime.

A: Sure

Q: I went back to session 3 and only found a graph of the gamma function. I would like to know more also.

A: Sure

Q: How to validate special generator?

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A: This is a very good question. Unfortunately, special generators are not easy to validate. The modeler needs to rely on local knowledge and specific information about the special generator to do the validation.

DISCLAIMER

The purpose of the workshop is to fulfill the capacity building goal in the area of quantitative transportation analysis methods. The contents presented do not represent the opinions of FHWA and do not constitute an endorsement, recommendation or specification by FHWA. They do not determine or advocate a policy decision/directive or make specific recommendations regarding future research initiatives. The questions and answers here are based solely on comments posted to the chat pod during the session.