

Summary of Webinar Q&A

Question: How do you account for shoppers, doctor appointments, etc.?

Guy Rousseau: Typically there is a home-based shopping trip purpose

Question: How well does the land use and TDM linkage work? Is there a validation process so that it can be shown that the underlying land use assumed for the TDM is appropriate?

Guy Rousseau: Usually there would be a feedback loop from the land use model feeding back to the travel demand model, via composite impedances, such as congested travel times, in order to properly reflect congestion throughout land use and travel demand forecasts

Question: Does the HH Size break out HH by age? (i.e. driving age?)

Guy Rousseau: The traditional 4-step model sometimes fail to account for age of the household members (though household size does break out by income groups typically), yet an activity-based model with a population synthesizer allows to take into consideration age of the household members

Question: How do you suggest modeling military bases where population and employment varies significantly from time to time?

Guy Rousseau: A special generator, combined with seasonality effects, might do the trick here

Question: Is there any guidance/publications out there to go from a daily travel demand model to a time of day model?

Guy Rousseau: The diurnal distribution of traffic throughout the day would dictate the need to switch to a time of day model, say if you see the emergence of a mid-day peak, then a time of day model may be warranted

Question: How do you account for the diverted trips?

Guy Rousseau: Diverted trips may be best accounted for within a traffic micro-simulation model, or perhaps even a tour-based model, traditional models are somewhat limited to properly reflect trip diversion

Question: Is bike/ped part of this logit model?

Guy Rousseau: Bike/ped trips are often set aside after trip generation, and not always assigned, unless you have a good bike/ped choice model with enough data to support it

Question: So if you run a scenario with and without a bypass, then a traditional model is not the best way to estimate diversion from the existing facility to the bypass?

Guy Rousseau: it depends upon how detailed your network coding is, but in the case of a bypass, the traditional model might suffice here in this case, depending upon its functional classification

Question: How do you estimate the travel associated with the USGA annual championship tournament?

Guy Rousseau: special events are not always well accounted for in a typical weekday/workday model, unless one has a special event model component

Question: Say a trip is not directly from work to home, but instead work to shop then to home, how do you define these kinds of trips?

Guy Rousseau: non-home based, then home-based other

Question: Do you calibrate the intersection turning movement volumes?

Guy Rousseau: intersection turning movements are not necessarily always calibrated within a regional travel demand model, but they are as a part of a traffic micro-simulation model

Question: Is there a legitimate way to calculate VMT and VHT from TAZ to TAZ in a model with 4000 TAZs?

Guy Rousseau: zone-to-zone matrices and skim matrices, combined with travel times and distances from zone to zone may help here determine what you need

Question: How do you model college football games in the fall?

Guy Rousseau: here again, special events would need to be post processed in order to be factored in, remember here we model the typical weekday workday

Question: If the intersection turning movement volumes are not calibrated, how do we get the future intersection turning movement volumes from the forecasting model?

Guy Rousseau: while we may obtain intersecting volumes from links crossings, left turn and right turn and through movements are best obtained in a micro-simulation model

Question: Is there a good way to account for signals in a traditional model?

Guy Rousseau: via turn penalties and turn prohibitions you may account for traffic signals

Question: Transcad or Transplan which is better?

Gary Thomas: FHWA and the TMIP program do not endorse or comment on the quality of various software packages.

Question: How are the different attraction criteria weighted? For example when weighing transit with the criteria listed the overall cost would be lower where as travel time may be higher. Ultimately how could you use the criteria to plan for different modal balancing utilizing existing travel data?

Eric Pihl: Generally those relationships are established when models are estimated. Generally choice based models enable the inclusion of variables that relate to land-use characteristics and other important attributes, and those weights are derived using model estimation software (alokit and limdep are common packages)

Question: How can a model replicate and evaluate complete street policy?

Eric Pihl: Some models in the 90s were developed with 'pedestrian environment factors' to describe bike/ped friendliness and considered in network assignment. Other approaches may include adjusting the speed and capacity inputs to models as a proxy for design improvements.

Question: If we would like to simulate the intersection operation in 2030, we need to get the intersection turning movement from the forecasting model, but we just don't have the accurate volumes if not calibrated?

Eric Pihl: Turning movements are often difficult to match without the adoption of turn penalties in trip assignment. Many areas use NCHRP 255 methods that simply factor counts based on model derived growth rates.