P2P #16: Use of Freight Trip Generation Techniques to Manage Curb Space
Questions and Answers

1. **Do you know when the report with the detailed models will be available?**
   R/ TRB is in the process of editing the current report - most likely Spring of 2017

2. **How do you define a "space"?**
   R/ About 70% of freight trips and deliveries are made in small vehicles ("white vans" small trucks, etc), the rest are made in medium size trucks (20% and semi-trailers (10%). A "space" is a normal parking space of the kind used by passenger cars. Loading areas to be used by medium and large trucks need larger "spaces"

3. **What is service trip?**
   R/ Service trips are those generated by technicians, service providers, and the like, who visit an establishment to perform various services. For more information see: (Holguín-Veras et al., 2012).

4. **Is there are report available for the DC study?**
   R/ The report is available at www.godcgo.com/freight

5. **Any thoughts on enforcement of loading zone usage?**
   R/ Effective enforcement is critical to the success of managing curb space. City government has to work with local enforcement agencies to ensure compliance amongst freight carriers and private vehicles. Effective enforcement ensures proper usage of the curb space and often leads to improved traffic flow long corridors with a heavy demand for curb space.

6. **Do you have any interesting case studies from South Korea? (Because of the high # of internet deliveries per household)**
   R/ We believe that Seoul, South Korea, is a leading expression of the internet delivery phenomenon. Unfortunately, we do not have a case study. The rate of internet deliveries per person comes from "An effects analysis of logistics collaboration in last-mile networks for CEP delivery services" by Hyeongjun Park, Dongjoo Park and In-Jae Jeong,, published in Transport Policy, 2016, vol. 50, issue C, pages 115-125.

7. **What was the source of the SIC codes used in the DC analysis?**
   R/ InfoUSA was the database used

8. **Is the online database developed through NCFRP 25 available yet (website says still under development) or a schedule for availability? FG/FTG Database**
   R/ The FG/FTG database you mention contains a compilation of all the models reported in the literature, including models estimated with handfuls of observations that we consider not correct. With the publication of the second phase report of NCFRP 25—which contains a complete set of freight generation, freight trip generation, and service trip generation models that replace all the models published in the first phase—we do not see a need to maintain or expand the original database.

9. **What is the definition of a loading zone - is it a dedicated curbside loading space for a single vehicle, or does it accommodate several such vehicles - or can it be both? Therefore how many goods vehicle approximately can the 580 loading zones in Washington DC accommodate at one time?**
   R/ A loading zone a defined space along a curb reserved for the use of a commercial vehicle actively loading and unload freight. There are approximately 580 loading zones across Washington, DC averaging 49 feet in length.

10. **Is there a way to use the outcome of the FTG/loading bay studies not for curb space analysis but to attribute greenhouse gasses somehow? Is there an apportionment mechanism?**
    R/ The FTG estimates provide the basis for a very solid procedure to apportion emission estimates in urban areas. In a recent paper (Holguín-Veras et al., 2016) we conducted the following analysis:

    "The estimation of the vehicle-km generated by one delivery—defined as the total tour distance divided by the number of deliveries made—is a challenge, as there are no publicly available data that could be used. The estimates produced by the authors for NYC using the Behavioral Micro Simulation suggest a value of 9 km (Silas and Holguín-Veras, 2009; Holguín-Veras and Aros-Vera, 2014). The estimates from Holguín-Veras and Brom (2008, based on survey data reveal that, in NYC, the average tour distance and number of delivery stops are 120 km, and 4.54 stops/tour. Assuming two deliveries for each stop, a single delivery would create 13.66 vehicle-km. However, since these estimates correspond to deliveries to Manhattan, they are not necessarily representative of the larger metropolitan area. Since Manhattan is at the center of the metropolitan area, delivering or picking up cargo there requires longer travel distances from distribution centers located in the periphery of the urban core. There are no such estimates for the other cities."

References

Holguín-Veras, J. and F. Aros-Vera (2014). "Self-Supported Freight Demand Management: Pricing and Incentives." EURO Journal on Transportation and Logistics **3**(1): 1-24. 10.1007/s13676-013-0041-1

Holguín-Veras, J. and M. A. Brom (2008). Trucking Costs in a Metropolitan Area: A Comparison of Alternative Estimation Approaches. Annual Meeting of the Transportation Research Board, Washington, DC.

Holguín-Veras, J., et al. (2016). "Direct Impacts of Off-Hour Deliveries on Urban Freight Emissions." Transportation Research Part D: Transport and Environment. http://dx.doi.org/10.1016/j.trd.2016.10.013

Holguín-Veras, J., et al. (2012). "NCFRP 25 Freight Generation and Freight Generation Models Database." Posted: Retrieved May 13th, 2013, from http://transp.rpi.edu/~NCFRP25/FTG-Database.rar.

Silas, M. A. and J. Holguín-Veras (2009). "Behavioral Microsimulation Formulation for Analysis and Design of Off-Hour Delivery Policies in Urban Areas." Transportation Research Record: Journal of the Transportation Research Board **2097**: 43-50. 10.3141/2097-06