

APPENDIX I-9: TREND ANALYSIS – LAST MILE DELIVERY/PICK-UP ISSUES

Trend Statement

There are few experiments in the United States (US) designed to address the problems of shipments to businesses and residents within the urban core. The “last mile” programs that do exist are typically established by, and within, localities’ authority, e.g., changes to building codes and parking policies. European cities have more latitude for freight delivery regulation and they have experimented with consolidated delivery centers and low emission zones. The most transferable European experiments are those that are voluntary, such as labeling or certification schemes.

Background

The last mile (or rather miles) represents the final haul of a shipment to its end receiver, be it a shop, a business, a facility, or a residence. Cities also experience first mile(s), as one-third of urban truck traffic is the picking up of goods. Trucks are the dominant freight carrier in urban areas; however, most urban areas are not designed for delivery and pick-up. Trucks contribute to noise, air pollution, congestion and take up road space.

Experimentation with various local freight management strategies is far more extensive outside the US. Partially, this is because cities outside the US have more serious problems due to higher density city cores, older building stock (and hence limited parking and loading facilities), and less road capacity (e.g., narrower streets). Downtown San Francisco, and to a lesser extent, the cores of Los Angeles, San Diego, and Sacramento, have some similar issues as their European counterparts. Also, non-US cities have more legal ability to regulate trucks. Changes that effect last mile deliveries and pickups fall into five categories:

- **Labeling or other certification schemes** are generally voluntary and involve creating a list of qualifications or minimum specifications for commercial vehicles. For example, ultra-clean vehicles might receive a green sticker. Some governments may use incentives to get firms to participate, like allowing ultra-quiet vehicles to deliver at night.
- Municipalities frequently use **traffic and parking regulations** to manage urban freight because these tools are clearly within local authority. However, they have a mixed record of success. Local freight demand must be accommodated; hence strategies that *manage* rather than *restrict* freight deliveries tend to be more effective. The San Francisco Municipal Transportation Agency has developed the *SFpark* program to increase turnover at curbside parking spaces including “yellow zones,” i.e., those reserved for commercial loading.
- Local jurisdictions can use their **land use planning and zoning** authority to set policies and guidelines for incorporating freight deliveries into new developments; for example,

they could set requirements for the presence or design of loading docks, and for parking and off-street loading zones.

- **City logistics and consolidation schemes** seek to reduce truck traffic by finding ways to combine pick-ups and deliveries of different shippers or different receivers. They often focus on changing the supply chain, rather than on the final (or initial) step of the chain. Some are successful such as drop/pick-up boxes for online purchases that avoid home deliveries. The more ambitious “urban consolidation centers” typically require heavy subsidies and are not popular with firms.
- **Off-hours deliveries** seek to shift truck activity out of the peak traffic periods and hence reduce congestion and emissions. This is an obvious way to reduce truck-related congestion; yet, few examples of off-hours delivery programs exist. Change (in the hours of operation) is required for both the freight providers and (even more importantly) the receivers. Coordination is therefore difficult.

Freight System Implications

Policies in this country have focused more on gateway and pass-through traffic, such as extended hours at ports. However, last mile issues are relevant. The ability to pick-up and drop-off cargo in the off-peak at a port depends upon the cooperation of warehouses and distribution centers throughout the supply chain. Often these facilities are located in urban areas. Incompatible local land use regulations with regard to off-peak deliveries, evening and weekend loading and parking restrictions, etc. can have a negative impact on attempts to shift traffic at the port to the off-peak.

The same conditions that allow for local regulation of trucking beyond zoning and parking in Europe and elsewhere do not exist in the US with the possible exception of New York City; but because freight will follow the path of least resistance, policies on vehicle access and weight will have an impact on freight flows across and through urban areas. There is a distinct lack of information on best practices and model regulations in this area.

Planning Considerations

Among the last-mile strategies, labeling and certification programs, land use planning (in the longer term), and off-hours deliveries are the most effective strategies. However, off-hours delivery programs are less transferable due to the many changes they require across the supply chain. Traffic and parking regulations are less effective, because they do not have an impact on the underlying demand for freight moves.

Resources

Dablanc, L., and Rakotonarivo, D. (2010). The impacts of logistics sprawl: How does the location of parcel transport terminals affect the energy efficiency of goods’ movements in Paris and what can we do about it? *Procedia - Social and Behavioral Sciences*. Volume 2, Issue 3, 2010. Pages 6087-6096. Retrieved January 25, 2012. Available at: <http://www.sciencedirect.com/science/article/pii/S1877042810010748>.

Dablanc, L., and Ross, C. (2012) Atlanta: A Mega Logistics Center in the Piedmont Atlantic Megaregion (PAM). Transportation Research Board Annual Meeting, January 22-26, Washington DC, USA. Dablanc, L., Diziain, D. and Levifve, H. (2011) New urban freight issues for the Paris region: results of recent consultation processes with business organizations. European transport research review, 3, pp. 47-57.

Dack, J. (2010) Delivery and Servicing Plans, presentation at SUGAR seminar, London, UK, December, www.sugarlogistics.eu/index.php?option=com_docman&task=doc_view&gid=76&tmpl=component&format=raw&Itemid=55.

Giuliano, G., O'Brien, T., Dablanc, L. and Holliday, K. (2013) Synthesis of Freight Research in Urban Transportation Planning. National Cooperative Freight Research Program (NCFRP) Report No. 23. Available at http://onlinepubs.trb.org/onlinepubs/ncfrp/ncfrp_rpt_023.pdf.

Holguin-Veras, J. (2008) Necessary conditions for off-hour deliveries and the effectiveness of urban freight road pricing and alternative financial policies in competitive markets, Transportation Research Part A: Policy and Practice, 42(2), pp. 392-413

San Francisco Municipal Transportation Agency (SFMTA). (2012). How it works – SFpark. Retrieved, April 18, 2012. Available at: <http://sfpark.org/how-it-works/>.

Transport for London. Fleet Operator Recognition Scheme. FORS. <http://www.tfl.gov.uk/corporate/projectsandschemes/24418.aspx>

Automated self service package pickups, in Germany: <http://www.dhl.de/en/paket/privatkunden/packstation.html>; in the US: <http://www.arlnow.com/2012/07/06/amazon-offering-locker-delivery-in-arlington/> .