French surveys on urban goods movements: 
first results of cross-section with diachronic analyses
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Extended abstract

Objectives and motivation

Twenty years ago a French national research programme “Goods in the city” was implemented with three important surveys in three cities: Marseille (1,050,000 inhabitants), Bordeaux (750,000) and Dijon (240,000). A large number of attempts had been based beforehand on the O-D matrix paradigm (Ambrosini and Routhier, 2004; Allen et al., 2012) and most frequently focused on a single unit of observation (the transport of a certain weight between an origin and a destination) which was not necessary sufficient for explaining a part of road congestion (Holguín-Veras and Patil, 2007). It then appeared that it was necessary to organise delivery surveys for whose the central unit of observation was “the movement” (pick-up or delivery), in order to fuel analysis of urban goods transport and also the FRETURB model (Routhier and Aubert, 1999, Routhier and Toilier, 2007, Bonnafous and alii, 2013).

Unfortunately, it was not possible to improve these analysis or the calibration of the FRETURB model on the base of time series because the lack, until the last months, of new surveys. The main explanation is the very high cost of these surveys: in France today, a survey like those described above costs from $1.7 and $2 million. Fortunately, a new wave of surveys is currently in progress in the Paris region and again in Bordeaux (and soon in Marseille), which methodology is exactly the same than for the first wave.

This communication presents the first results and comparisons allowed by the recent surveys of Bordeaux and Paris.

General description

Two types of information are involved in these delivery surveys (Patier and Routhier, 2009). The first is related to the stopping of the vehicle during the delivery: time, place, duration, in a reserved space or on the road, size of the vehicle, etc. The second is related to the trips linked to the sequence of movements: distances, round organisation, times, etc. These surveys addressed firms that shipped and received goods and drivers that ensured the transport.

For both the firm and driver, the information was collected at the place where contact existed between these two actors: the place of movement. It was therefore possible to capture simultaneously information on three fundamental elements of understanding urban goods transport: the logistic organisation of companies at firm level, the environment of the loading and unloading points and the organisation of transport.

Results and conclusions

Because the duration of a twenty years period between the two waves of survey, the new database will not provide any time series but it will allow diachronic analysis for Bordeaux and a new cross section analysis with the present survey on Paris and Bordeaux.

Thus our proposal is a communication will bring some answers to the main issues on central parameters of the urban goods transport. These issues will be organised according to the logic of FRETURB model and can be summarized in two main questions:
1) To what extent the assumptions underlying the model are validated in Bordeaux twenty years later?
2) To what extent these assumptions are validated in the case of Paris (investigated for the first time)?

References


**Keywords:** Urban freight; Delivery survey; Urban goods modelling.