

Stages of statistical strategy in Mobility Household Surveys. Challenges addressed

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All research on the issue of public transport and urban design requires simulation models, based on knowledge of the situation and forecast of its evolution from considering different scenarios. For the development of transport models it is necessary to reach a broad knowledge of the supply and demand system. Demand models, require a particular instance of gathering information about a set of variables associated with travel and socioeconomic characteristics of the users of the system, for which purpose, it has to be done survey using different statistical techniques among which are: household surveys, censuses and surveys of travel origin and destination in points of interception and opinion surveys. Surveys are conducted from operating in field supported by different sampling designs depending on the type of survey used. Like any sampling process, requires evaluation to exercise control over the errors or biases admitted at various stages of production of information. This work focuses its development on household surveys, seeking to provide a brief description of the difficulties encountered and the solutions adopted at the various stages during the performance of this type of surveys applied to the issue of mobility, highlighting the involvement of statistics throughout the process. In this sense, the approach to research through household surveys by sampling involves developing what is called "statistical design strategy" to ensure that the information obtained is capable of reproducing the characteristics of the area under study. To achieve this objective the activities to develop are disaggregated and worked in two groups: a first group "Tasks Before and during the survey" and a second "Post Survey". Among the tasks Before Survey are worked out in detail, the sampling frame, the sample design and the choice of the basic variables requires to obtain a demand model, as well as the design of the relational database. Among the tasks Post Survey are prioritized the application of tools to maintain control, consistency and integrity of data, expansion and calibration.

Key Words: transport, sampling frame, no response, based design