

Estimation of Time Loss and Costs of Traffic Congestion: The Contingent Valuation Method

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Abstract : The reduction of road congestion which is inherent to the use of vehicles is an obvious priority to public authority. Therefore, assessing the willingness to pay of an individual in order to save trip-time is akin to estimating the change in price which was the result of setting up a new transport policy to increase the networks fluidity and improving the level of social welfare. This study holds an innovative perspective. In fact, it initiates an economic calculation that has the objective of giving an estimation of the monetized time value during the trips made in Sfax. This research is founded on a double-objective approach. The aim of this study is to i) give an estimation of the monetized value of time; an hour dedicated to trips, ii) determine whether or not the consumer considers the environmental variables to be significant, iii) analyze the impact of applying a public management of the congestion via imposing taxation of city tolls on urban dwellers. This article is built upon a rich field survey led in the city of Sfax. With the use of the contingent valuation method, we analyze the “declared time preferences” of 450 drivers during rush hours. Based on the fond consideration of attributed bias of the applied method, we bring to light the delicacy of this approach with regards to the revelation mode and the interrogative techniques by following the NOAA panel recommendations bearing the exception of the valorization point and other similar studies about the estimation of transportation externality.

Keywords : willingness to pay, contingent valuation, time value, city toll

Conference Title : ICUTE 2016 : International Conference on Urban Transport and Environment

Conference Location : Paris, France

Conference Dates : March 14-15, 2016