

Investigating the Pedestrian Willingness to Pay to Choose Appropriate Policies for Improving the Safety of Pedestrian Facilities

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Abstract : Road traffic accidents lead to a higher rate of death and injury, especially in vulnerable road users such as pedestrians. Improving the safety of facilities for pedestrians is a major concern for policymakers because of the high number of pedestrian fatalities and direct and indirect costs which are imposed to the society. This study focuses on the idea of determining the willingness to pay of pedestrians for increasing their safety while crossing the street. In this study, three different scenarios including crossing the street with zebra crossing facilities, crossing the street with zebra crossing facilities and installing a pedestrian traffic light and constructing a pedestrian bridge with escalator are presented. The research was conducted based on stated preferences method. The required data were collected from a questionnaire that consisted of three parts: pedestrian's demographic characteristics, travel characteristics and scenarios. Four different payment amounts are presented for each scenario and a logit model has been built for each proposed payment. The results show that sex, age, education, average household income and individual salary have significant effect on choosing a scenario. Among the policies that have been mentioned through the questionnaire scenarios, the scenario of crossing the street with zebra crossing facilities and installing a traffic lights is the most frequent, with willingness to pay 10,000 Rials and the scenario of crossing the street with a zebra crossing with a willingness to pay 100,000 Rials having the least frequency. For all scenarios, as the payment is increasing, the willingness to pay decreases.

Keywords : pedestrians, willingness to pay, safety, immunization

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