

0824 ANALYSIS OF PEDESTRIAN BEHAVIOUR AND RISK WHILE CROSSING ROAD AT SIGNALISED INTERSECTION OF DELHI, INDIA: BEFORE AND AFTER CONSTRUCTION OF FLYOVER

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Pedestrians on Delhi roads are often exposed to large risks. This is because the basic needs of pedestrians are not recognised as part of the urban transport infrastructure improvement projects in Delhi. Rather, an ever increasing number of cars and two wheelers, the construction of large numbers of flyovers/grade separators to facilitate signal free movement for motorised vehicles expose pedestrian at a greater risk. This paper describes analysis of pedestrian behaviour at a signalised intersection before and after construction of a grade separator. It also quantifies the risk-taking behaviour of pedestrians while crossing the roads by developing a Logistic model. The model assumes that the probability of road crossing by pedestrians depends not only on the gap size (in seconds) between pedestrian and conflicting vehicles, but also on other parameters like gender, age, type of pedestrians (alone or in groups) waiting time, speed and type of incoming vehicles, intersection geometry and signal cycle time. The model was fitted on the data collected at the AIIMS intersection in Delhi before and after the construction of a grade separator there. The correlation between waiting times and gaps accepted by pedestrians shows that people accept smaller gap size if they wait long, that is, after certain time period of waiting, people just become impatient and do not like to wait for a large gap size. The analysis shows that the risk to pedestrians has increased after the construction of the grade separator and they are forced to take higher risk.