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Heavy Vehicles Crash Injury Severity at T-Intersections

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Abstract : Heavy vehicles make a significant contribution to many developed economies, including Australia, because they are a major means of transporting goods within these countries. With the increase in road freight, there will be an increase in the heavy vehicle traffic proportion, and consequently, an increase in the possibility of collisions involving heavy vehicles. Crashes involving heavy vehicles are a major road safety concern because of the higher likelihood of fatal and serious injury, especially to any small vehicle occupant involved. The primary objective of this research is to identify the factors influencing injury severity to occupants in vehicle collisions involving heavy vehicle at T- intersection using a binary logit model in Victoria, Australia. Our results show that the factors influencing injury severity include occupants' gender, age and restraint use. Also, vehicles' type, movement, point-of-impact and damage, time-of-day, day-of-week and season, higher percentage of trucks in traffic volume, hit pedestrians, number of occupants involved and type of collisions are associated with severe injury.

Keywords: binary logit model, heavy vehicle, injury severity, T-intersections

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