

عنوان مقاله:

An Analysis of Vehicle Occupants' Injury Severity in Crashes Occurred On Rural Freeways and Multilane Highways in Iran

محل انتشار:

نشریه بین المللی مهندسی حمل و نقل، دوره 4، شماره 2 (سال: 1395)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Ali Tavakoli Kashani - Assistant Professor, School of Civil Engineering, Iran University of Science and Technology, Tehran, Iran, and Road Safety Research Centre, Iran University of Science and Technology, Tehran, Iran

Mohammad Mehdi Besharati - Ph.D. Student, School of Civil Engineering, Iran University of Science and Technology and Road Safety Research Centre, Iran University of Science and Technology, Tehran, Iran

خلاصه مقاله:

Vehicle occupants comprise a considerable proportion of traffic crash victims in Iran. This paper has focused on vehicle occupants' injury severity and employed the Classification and Regression Tree (CART) technique in order to identify the most important variables affecting the injury severity of these road users in crashes occurred on rural freeways and multilane highways in Iran over a three year period (2006-2008). In the procedure adopted in this paper, the problem of three-class prediction was decomposed into four binary prediction models. Results revealed a high overall prediction accuracy of the models. Ten explanatory variables were considered in the current study in order to find the most important variables affecting the injury severity of occupants. In this regard, some if-then rules pertaining to the conditions that lead to more severe injuries are provided based on the decision tree analysis. Results confirm the already-known importance of seatbelt usage for preventing serious injuries in one hand, and imply the insufficiency of seatbelt usage for protecting the occupants from receiving serious injuries in some collision types, on the other hand. This underscores the need for more safety instruments (especially airbags for all occupants of the vehicle) to be installed in passenger cars in Iran.

کلمات کلیدی:

Vehicle occupant; seat belt; injury severity; rural freeway and multilane highway

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/588991>

