

Heterogeneity of the Accident Externalities from Driving

Abstract

This paper examines the accident externalities from driving in terms of loss probability and severity by using a unique individual level data set with more than three million observations from Taiwan. Two types of accident externalities are respectively measured: the average number of kilometers driven per month per vehicle and the total number of speeding tickets per month. For both variables, we find significant evidence to support the existence of the accident externalities. Moreover, we find that the accident externalities are heterogeneous in terms of the vehicles' characteristics.

Keywords: accident externalities, automobile insurance, loss probability, loss severity.

JEL classification: H23, D62, G22