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Modeling the behavior of novice young drivers during the first year after licensure

Carlo Giacomo Prato^{a,*}, Tomer Toledo^{b,1}, Tsippy Lotan^{c,2}, Orit Taubman - Ben-Ari^{d,3}

^a *Ran Naor Road Safety Research Center, Technion - Israel Institute of Technology, Technion Campus, Haifa 32000, Israel*

^b *Faculty of Civil and Environmental Engineering, Technion - Israel Institute of Technology, Technion Campus, Haifa 32000, Israel*

^c *Or Yarok, 22 Hanagar St., Hod Hasharon 45240, Israel*

^d *School of Social Work, Bar Ilan University, Ramat Gan 52900, Israel*

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ABSTRACT

Novice young drivers suffer from increased crash risk that translates into over-representation in road injuries. In order to effectively confront this problem, a better understanding of the driving behavior of novice young drivers and of its determinants is needed. This study analyzes the behavior of novice young drivers within a Graduated Driver Licensing (GDL) program. Data on driving behavior of 62 novice drivers and their parents, who voluntarily participated in this experiment, were collected using in-vehicle data recorders that calculate compound risk indices as measures of the risk taking behavior of drivers. Data were used to estimate a negative binomial model to identify major determinants that affect the driving behavior of young drivers during the first year after licensure. Estimation results suggest that the risk taking behavior of young drivers is influenced by gender, sensation seeking tendency, driving behavior of their parents, amount of supervised driving and level of parental monitoring.

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