

Fatalities down sharply as 16-year-olds drive less

February 24 2014, by Amy Johns

Getting behind a steering wheel has been the most hotly anticipated rite of passage for most American teenagers (and a cause of insomnia among parents) practically since the invention of the automobile. For decades, 16-year-olds were free to drive independently to the store, to school, and on dates. Laws are tougher these days, and all 50 states have implemented graduated driver's licensing (GDL), requiring drivers under 18 to gain driving privileges in phases. A new study by researchers in the West Virginia University School of Public Health published in the journal *Injury Prevention* suggests these provisional permits have led to a dramatic drop in vehicular fatalities among 16-year-olds.

The study, "The association of [graduated driver licensing](#) with miles driven and fatal [crash rates](#) per miles driven among adolescents," is the work of a team led by Motao Zhu, M.D., Ph.D., assistant professor in the WVU Department of Epidemiology and researcher for the WVU Injury Control Research Center. Although previous studies had noted fewer young people were dying as a result of crashes, Dr. Zhu and his colleagues were the first to look at how the graduated licenses affect miles teens drive and their crash rates per miles driven.

"We found that graduated driver license laws reduced crashes by approximately 35 percent among 16-year-old drivers," Zhu explained. "About half the reduction was due to fewer crashes per miles driven and half to the fact that they simply drive less."

State GDL laws require drivers under 18 slowly gain driving experience

through three stages:

- An extended learner phase, where the driver only drives while supervised for three to twelve months;
- An intermediate phase, which allows unsupervised driving under low-risk conditions, such as daylight, and;
- Full licensure, permitting unsupervised driving at all times.

"The differences became less pronounced at 17 and 18," Zhu continued. "The laws were associated with a 17 percent reduction in fatal crashes among 17-year-old drivers, which we attributed to reduced driving miles, with no reduction seen in the fatal crash rate per miles driven. They just drive less. For 18-year-olds, graduated driving laws showed little association with either."

Zhu's team analyzed data from the both the U.S. National Household Travel Survey and the Fatality Analysis Reporting System for the years 1995-1996, 2001-2002, and 2008-2009. Teens subject to GDL laws were compared to those who were not.

More information: "The association of graduated driver licensing with miles driven and fatal crash rates per miles driven among adolescents." Motao Zhu, Peter Cummings, Songzhu Zhao, Jeffrey H Coben, Gordon S Smith. *Inj Prev*. injuryprev-2013-040999Published Online First: 13 February 2014 [DOI: 10.1136/injuryprev-2013-040999](https://doi.org/10.1136/injuryprev-2013-040999)

Provided by West Virginia University

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