OLDER NOVICE DRIVER CRASHES IN NEW JERSEY: INFORMING THE NEED FOR EXTENDING GRADUATED DRIVER LICENSING RESTRICTIONS

INTRODUCTION

Graduated Driver Licensing (GDL) systems—which place restrictions on new drivers when they first begin driving and then gradually phase in more driving privileges as these drivers gain experience—have been proven to decrease the rates of crashes, injuries, and deaths of young novice drivers. However, although an estimated 1 in 3 new drivers obtain their first license at or after age 18, most U.S. states only apply their GDL systems to drivers younger than 18. (New Jersey applies its full GDL system to all new drivers younger than 21.) Previous studies by the AAA Foundation for Traffic Safety found that new drivers licensed for the first time between the ages of 18 and 20 have crash involvement rates similar to equally-inexperienced new drivers younger than 18 and substantially higher crash rates than same-aged peers who were licensed at younger ages.

Most of the foundational research on GDL systems in the U.S. is based on the elevated crash risk for 16-year-old novice drivers and associated factors. This study sought to determine whether those same factors (e.g., driving at night; carrying multiple passengers) are associated with elevated risk for older novice drivers as well, and thus whether extending existing state GDL systems to slightly older novice drivers would likely have safety benefits.

KEY FINDINGS

Overall crash rates of new drivers licensed at ages 18–20 were similar to those of new drivers licensed at age 17 (the minimum age for licensure in New Jersey) over the first year of licensed driving.

Drivers licensed at ages 18-20 had a much higher rate of crashes between 11:01 p.m. and 4:59 a.m. compared with drivers licensed at age 17. This difference persisted for the entire 48-month period examined.

Rates of crashes that occurred between 9 p.m. and 11 p.m. declined rapidly over the first several months of licensure for drivers licensed before age 21; decreases in rates of late-night crashes were much smaller.

Drivers licensed at ages 18–20 had similar or higher rates of crashes in which they were carrying multiple passengers at any given time after licensure, compared with drivers licensed at age 17.

Interestingly, monthly crash rates of drivers licensed at ages 18 and older decreased (improved) more slowly over time than did those of drivers licensed at age 17.

ABOUT

Established in 1947 by AAA, the AAA Foundation for Traffic Safety is a not-for-profit, publicly funded, 501(c)(3) charitable research and educational organization. The AAA Foundation's mission is to prevent traffic deaths and injuries by conducting research into their causes and by educating the public about strategies to prevent crashes and reduce injuries when they do occur. This research is used to develop educational materials for drivers, pedestrians, bicyclists and other road users. Visit www.AAAFoundation.org for more information.

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New drivers ages 21–24 had a lower crash rate than did younger drivers who had been licensed for the same length of time throughout their first 18 months of licensed driving, after which their crash rates converged with those of drivers licensed at age 17.

New drivers licensed at ages 25 and older had much lower crash rates than did younger drivers who had been licensed for the same length of time.

In summary, findings support New Jersey's current GDL policies for new drivers younger than age 21 and suggest potential for added benefits from beginning the night driving restriction at 9 p.m. There is a lack of compelling evidence for extending GDL policies to drivers licensed at ages 21–24, and no evidence to indicate a need for additional GDL policies for New Jersey novices aged 25 years and older.

METHODOLOGY

Researchers from the Children's Hospital of Philadelphia examined crash involvement rates of newly-licensed drivers in relation to their age and the length of time for which they had been licensed to drive independently.

Drivers were grouped according to whether they received their first license at age 17 years (the minimum age for a license that allows independent driving in New Jersey), 18–20, 21–24, or 25+. Rates of crashes per 10,000 licensed drivers per month were examined for each group for each driver's first 24 months of licensed driving for all police-reported crashes as well as for:

- Crashes that occurred between 11:01 p.m. and 4:59 a.m.
- Crashes that occurred between 9 p.m. and 11 p.m.
- Crashes in which the driver was carrying multiple passengers
- Crashes in which the driver was carrying any passengers
- Crashes that resulted in a police-reported injury

Rate ratios and 95% confidence intervals, computed using Poisson regression and adjusted for sex, were used to compare crash rates for each of the above crash types for same-aged drivers who had been licensed for different lengths of time, and for different-aged drivers who had been licensed for the same length of time.

Analyses were based on data from 1,034,835 drivers who received their New Jersey driver's license in years 2006 to 2014, including 327,997 who were aged 18 years or older when they received their first license.

Limitations of the study included inability to account for drivers who moved out of the state of New Jersey during the study period but kept their New Jersey license, and lack of data on the amount of driving done by drivers licensed at different ages overall, over time, and in relation to the specific exposures examined (i.e., driving at night and carrying passengers).

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