Effects of Graduated Driver Licensing on Fatal Crash and Collision Claim Rates

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The Insurance Institute for Highway Safety (IIHS), founded in 1959, is an independent, nonprofit, scientific, and educational organization dedicated to reducing the losses — deaths, injuries, and property damage — from crashes on the nation's highways.

The Highway Loss Data Institute (HLDI), founded in 1972, shares and supports this mission through scientific studies of insurance data representing the human and economic losses resulting from the ownership and operation of different types of vehicles and by publishing insurance loss results by vehicle make and model.

Both organizations are wholly supported by auto insurers.
Fatal crashes per 100,000 people
By driver age, 1996-2010
IIHS rating system

G F M P

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<th>learner’s phase</th>
<th>intermediate phase</th>
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<td>entry age</td>
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<td>holding period</td>
<td>nighttime driving restriction</td>
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<td>supervised driving certification</td>
<td>passenger restriction</td>
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<td>duration of restrictions</td>
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IIHS ratings of graduated licensing laws
IIHS ratings of graduated licensing laws
August 2011, using 2005-11 rating system

- 36 + DC good
- 7 fair
- 7 marginal
- 0 poor
Effects of GDL on fatal crash rates and collision claim rates

• IIHS national study
  – Quarterly state data during 1996-2007
  – Fatal crash rate per population of teenagers
  – Fatal crash rate of drivers 30-59 accounted for state crash trends, weather, etc.

• HLDI national study
  – Licensed drivers only; no permit stage drivers
  – Annual state data during 1996-2008
  – Rates of claims per 100 insured vehicle years for teenage rated drivers
  – Claim rates for ages 35-55 accounted for state collision claim trends, etc.
Predicted percent change in fatal crashes of 15-19 year-olds per population

Compared with states that have poor graduated licensing laws
Predicted percent change in collision claim frequencies

Compared with states that have poor graduated licensing laws, by rated driver age
Percent reduction in teenagers’ crash rates
By graduated licensing component

- 1-year delay in permit age
- 1-year delay in license age
- 9 p.m. driving restriction
- Teen passengers limited to 0 or 1
- 20 or more hours of practice driving

Legend:
- Fatal crashes per population, 15-17-year-old drivers
- Collision claim frequencies, 16-17-year-old drivers
Encouraging states to improve graduated licensing systems

• Rating state systems
  – Advantage: straightforward result (good, fair, marginal, or poor)
  – Disadvantage: does not encourage good states to improve

• Potential crash reductions from strengthening components even in the best states
Required practice hours
Minimum during permit stage, June 2012

- PA: 65
- none
- 20-30
- 35-45
- 50-60
- 65
Minimum age for intermediate license

June 2012

- 17
- 16, 3-6 months
- 15-16, 6 months
- 14, 3 months

States:
- 17: MD, DE, DC, MA, RI, NJ, NH, ME, PA, WV, NC, SC, GA, FL, OH, MI, IN, IL, WI, IA, MO, LA, NM, CO, SD, ID, CA, WA, OR, AK
- 16, 3-6 months: NY, VT, NH, ME, CT, MA, RI, NJ, DE, MD, VA, PA
- 15-16, 6 months: MI, IN, OH, WI, IL, MN, IA, MO, KS, OK, TX, AR, MS, AL, TN, NC, SC, GA, FL, LA
- 14, 3 months: ND, SD, MT, WY, CO, NM, UT, NV, AZ, ID, CA, WA, OR, AK, HI
Passenger restrictions
Number of permitted teenage passengers, June 2012

- 2+ or no restriction
- one
- zero
Night driving restrictions
Earliest start time, June 2012
GDL calculator

• Estimates effects of given improvements
• Overall crash reductions based on improving all five components
• “Match the best” feature permits state to see benefits of matching strongest provisions
Young driver licensing systems in the U.S.

For every state and D.C., the Institute has estimated the effects of strengthening or weakening 5 key GDL provisions: permit age, practice driving hours, license age, and night driving and passenger restrictions. The projections are based on research showing what matters most when it comes to preventing fatal crashes and collision claims among teen drivers.

This calculator uses the results of that research to show how changes to state provisions might affect collision claims and fatal crash rates among young drivers. To get started, select a state from the list below.

Choose your state:

[Select]

Best GDL provisions by state as of May 2012

Permit age of 16:

Connecticut

Status Report, Vol. 47, No. 4, May 31, 2012 — Cover story: How to make young driver laws even better (PDF)

News release, May 31, 2012: States could sharply reduce teen crash deaths by strengthening graduated driver licensing laws

Research papers:
Graduated driver licensing laws and insurance collision claims frequencies of teenage drivers (PDF)
Graduated licensing laws and fatal crashes of teenage drivers: a national study (PDF)
Conclusions

• National studies have shown the beneficial effects of strong GDL systems on crash rates, yet there is still room to improve

• GDL calculator can be used to estimate effects of specific changes for states:
  – Permit and licensing age delays
  – Strong night driving and passenger restrictions on beginning drivers
  – An increase in the number of required practice hours
For further information

www.iihs.org

- Fatality Facts
- Q&As
- State laws
- Consumer brochures and videos
Dedicated to reducing deaths, injuries, and property damage on the highway