



Insurance Institute for Highway Safety
Highway Loss Data Institute

Graduated Driver Licensing

Governors Highway Safety Association
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iihs.org

Graduated Driver Licensing programs

1996 - 2017

- ▶ New review of the literature (Williams, in press)
 - Confirms: GDL reduces crash fatalities among younger teen new drivers
 - Resolves Uncertain Findings: GDL participation does not increase fatalities for older teens
- ▶ Points to Next Steps in research and implementation
 - Determine optimal calibration for GDL policies
 - Apply strongest GDL standards across the board
 - Apply GDL to all new drivers under age 21

What is GDL?

Graduated licensing components

Graduated licensing is a 3-stage system beginning with a learner's stage of supervised practice driving.

Full licensure is granted after completion of an intermediate stage that restricts driving under high-risk conditions.

Learner's phase

- ▶ Entry age
- ▶ Supervised driving certification
- ▶ Minimum duration

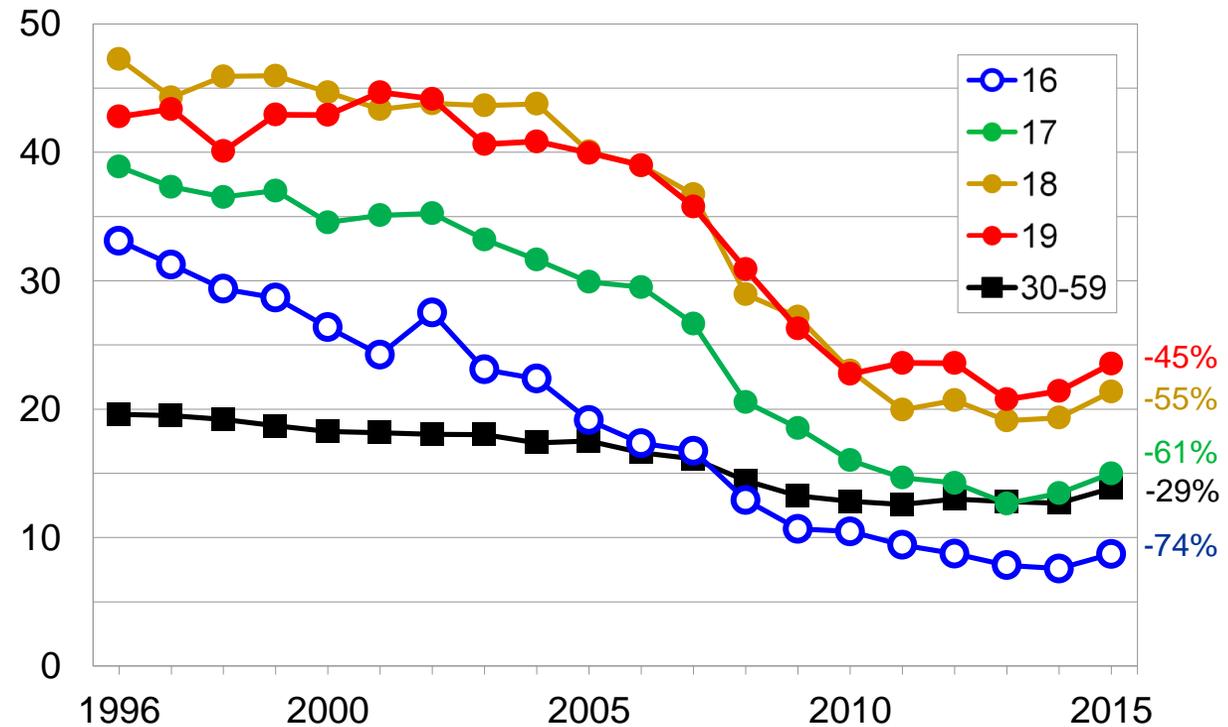
Intermediate phase

- ▶ Entry age
- ▶ Nighttime driving restriction
- ▶ Passenger restriction
- ▶ Minimum duration

Fatal crashes per 100,000 people

By driver age, 1996-2015

Since 1996, when the first graduated driving licensing program was implemented, fatal crash rates have declined more dramatically for teenagers than for adults



State evaluations of graduated driver licensing

In states where graduated licensing laws have been evaluated, there are substantial reductions in crashes for the ages covered.

	age groups	crash reductions
Florida	15-17	9%
Iowa	16-17	25-30%
Michigan	16	29%
New York	16	31%
North Carolina	16	23%
Ohio	16-17	23%
Wisconsin	16	14%

Changes in state licensing requirements

1995 vs. 2017

Since 1995 many states have strengthened teenage licensing laws.

	number of states plus the District of Columbia	
	1995	April 2017
minimum learner's age 16 or older	8	8 & DC
learner's permit for at least 6 months	0	48 & DC
30+ hours of certified (supervised) driving	0	44 & DC
minimum intermediate license age older than 16	3	11 & DC
night driving restriction once licensed	9	49 & DC
passenger restriction once licensed	0	45 & DC

Effects of GDL

Effects of GDL on crashes by age

▶ Age 16

- 16% reduction in all crashes, 35% reduction in fatal crashes (Masten, Thomas, Korbelak, Peck & Blomberg, 2015)

▶ Age 17

- 11% reduction in all crashes, 17% reduction in fatal crashes (Masten, Thomas, Korbelak, Peck & Blomberg, 2015)

▶ Ages 18-20

- GDL does NOT appear to have a negative impact on teen drivers after they participate in the program
- Teens who went through GDL beginning at age 16 showed positive crash effects for 3-5 years (Foss et. al. 2014)
- 15 year study: GDL reduces crashes for 16 & 17 year old drivers, does not increase crashes for 18 & 19 (Thompson, McGee & Feng, 2016)

Effects of GDL components

▶ **Learner Phase**

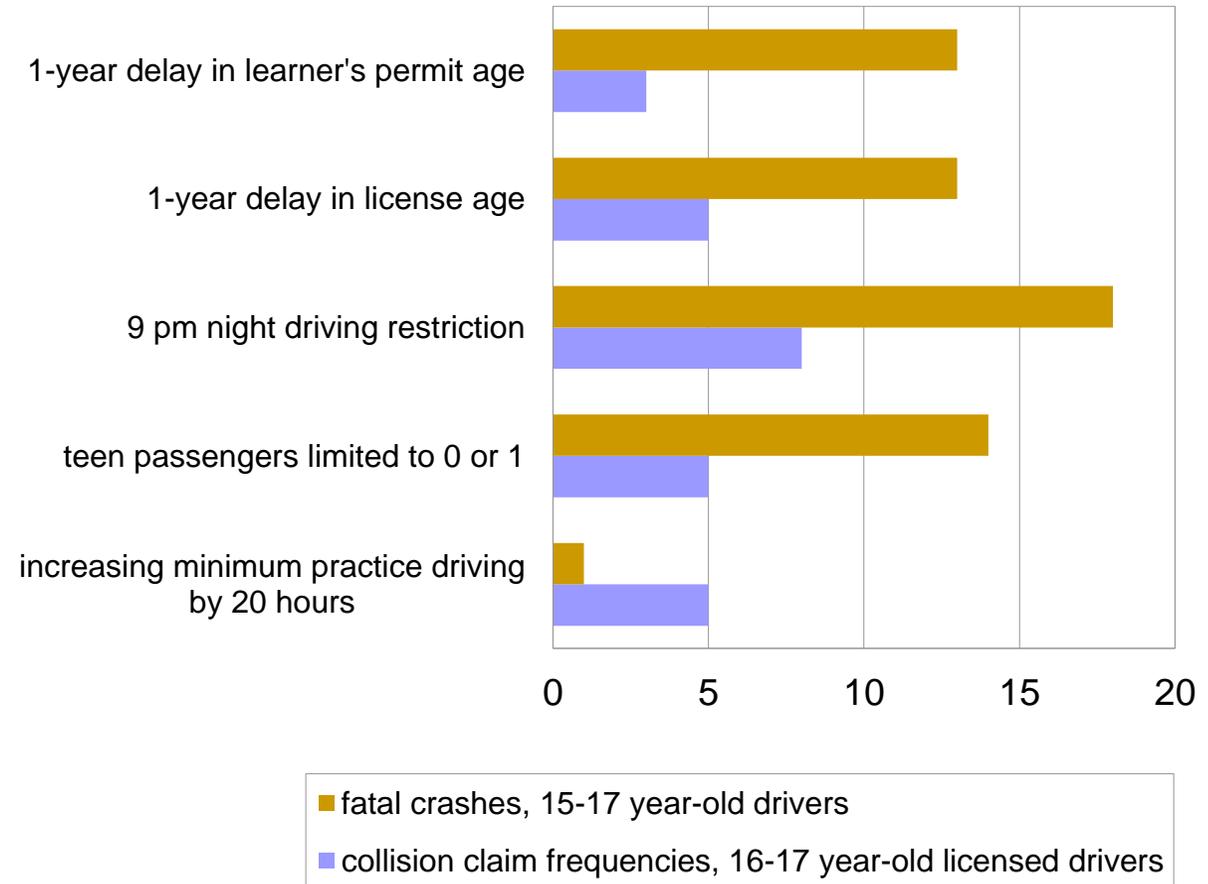
- 6 months is better than 3 months (Ehsani, Bingham & Shope, 2013)
- 9-12 month duration yields the greatest crash reductions (Masten et. al. 2015)
- No clear evidence on the optimal amount of supervised practice driving

▶ **Intermediate Phase**

- Adding passenger restrictions to GDL sharply reduces crashes for 16- and 17-year-old drivers (32% and 15% respectively in NC study)
- Nighttime restrictions beginning at 9 or 10 p.m. reduce crashes for 16-year-old drivers by 7-8%

Percent reduction in teenage crashes per population from graduated licensing components

Licensing laws that include strong **nighttime** and **passenger restrictions**, and laws that **delay the learner's permit and licensing age**, reduce teenage driver crash involvements.



GDL challenges

GDL Challenges

- ▶ GDL is inconsistently applied to young teens (16 and 17 year-olds)
- ▶ Most states apply GDL to license applicants younger than 18, and lift probationary license restrictions when teenagers turn 18
- ▶ Many states begin nighttime restrictions later than is ideal
 - Midnight or later, rather than 9 or 10 p.m.
- ▶ States introduce fewer and fewer GDL laws every year
 - 122 laws introduced in 2009, compared with only 30 bills in the last 12 months.

GDL Challenges

States introduce fewer and fewer GDL laws every year, meaning fewer and fewer pass

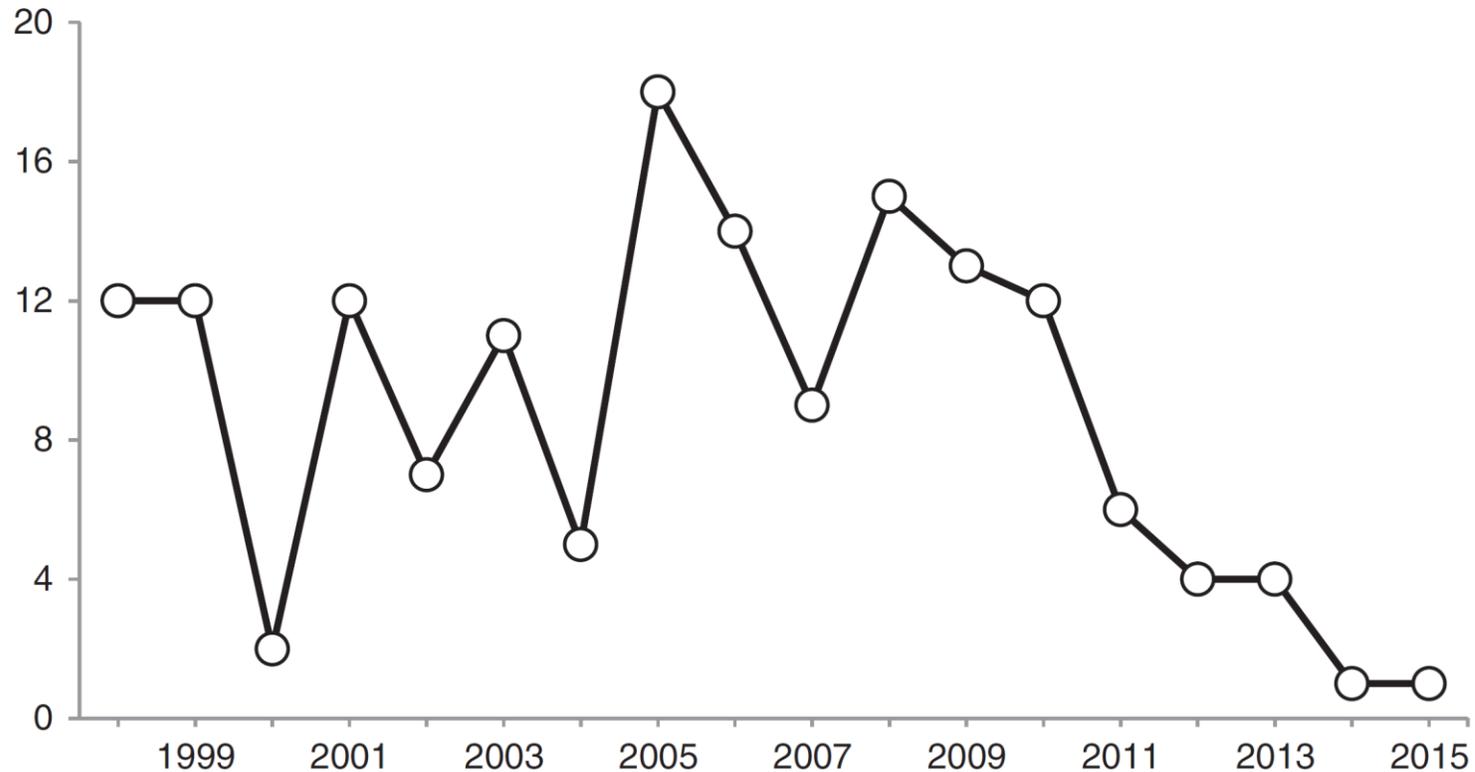


Fig. 1. Number of changes to add or strengthen minimum learner's holding period of 2 months or more, night restriction, passenger restriction, or supervised driving hours requirement by year, 1998–January 2015.

Graduated license law calculator for states encourages even good states to improve

In 2012, IIHS introduced an on-line calculator for states showing potential crash reductions from strengthening five licensing law components. A “match the best” feature shows the benefits of matching the strongest provisions for all five components.



A black and white photograph of a road curving through a landscape. The road has a double yellow line in the center and a white line on the left. The road curves to the right. On the right side of the road, there is a line of trees and a grassy embankment. The sky is filled with large, soft clouds. The overall mood is serene and forward-looking.

Moving forward

GDL next steps

- ▶ There is strong evidence that **GDL reduces crashes at ages 16-17**, and the concern about negative effects at ages 18-19 is unwarranted
- ▶ States should be encouraged to **improve their existing GDL programs**
 - There have been very few improvements since 2010
 - Need nighttime restrictions beginning at 9 or 10 p.m.
 - Need passenger restrictions that limit driver to zero teen passengers
- ▶ Develop driver education and GDL programs that include **greater parent involvement**
 - Programs that change teen driver behavior require direct parent involvement
- ▶ Determine the potential effects of GDL policies on **older novices (age 21+)**

Summary

- ▶ GDL has been a major factor in reducing crash risk for the younger teens
- ▶ Significant variation in GDL component strength indicates that progress still is needed to minimize crash risk among young novices across the U.S.
 - Existing GDL programs need to be improved
- ▶ There is potential to reduce crash risk for older novice drivers
 - Older novice drivers make up a large and diverse population
 - Little is known about potential GDL effects for older novices



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