

Teen Crash Risks Addressed by Laws and Regulations

Workshop on Reducing and Preventing
Teen Motor Crashes
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Legal and Regulatory Approaches to Teen Crash Problem

- W Strong laws – coupled with publicized enforcement – have been shown to be most effective in changing driver behavior
- W Laws directed at teens are primarily based on identified teen crash factors rather than developmental factors
- W Substantial evidence for effectiveness of alcohol and licensing laws in reducing teen crashes

Alcohol-impaired crashes among teens

- W Teens are less likely than adults to drive when alcohol-impaired, but their crash risk is higher at a given BAC, especially low and moderate BACs
- W Among fatally injured passenger vehicle drivers ages 16-19:
 - Percent with BACs ≥ 0.08 percent fell from 51 percent in 1982 to 23 percent in 2004, but progress has stalled
 - In 2004, proportion with BACs ≥ 0.08 about double for males vs. females and ages 18-19 vs. 16-17

Alcohol-impaired driving laws directed at teens

- W All U.S. states set minimum alcohol purchase age at 21
- W All states have zero tolerance laws that prohibit teens from driving with measurable alcohol
- W Both laws have been effective in reducing alcohol-related crashes among teens
- W Stepped-up enforcement of both laws needed to increase effectiveness

Graduated Driver Licensing (GDL)

- W Keeps young drivers out of hazardous situations initially
- W Seeks to increase amount of supervised practice driving
- W Limits where, when, and with whom teens can drive, once licensed
- W Often has the effect of delaying licensure

Optimal criteria for graduated licensing laws

Learner's phase

- W Minimum 6 months beginning no sooner than age 16

Intermediate phase

- W Nighttime driving restriction starting no later than 10 pm
- W Young passenger restriction (no more than 1)

Minimum eligibility for full license

- W At least 1 year after start of intermediate phase

Licensing requirements in 1995 vs. 2006

March 2006

	number of states	
	1995	2006
minimum learner's age 16 or older	8	8
learner's permit for at least 6 months	0	41
30 or more hours of certified driving	0	27
night driving restriction once licensed	9	45
passenger restriction once licensed	0	35

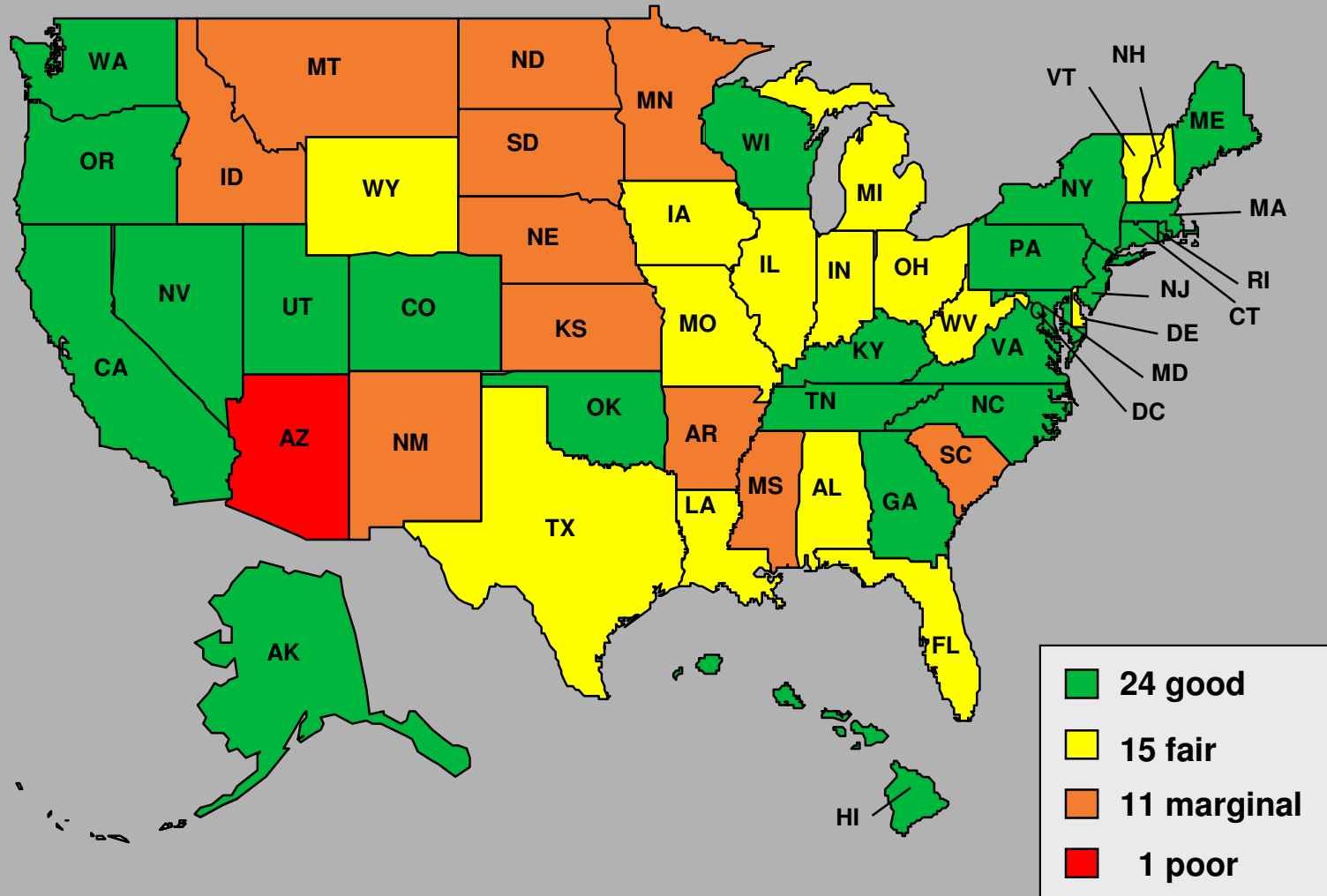
Recent changes in young driver licensing laws

2005 changes

	number of states
supervised driving	5
increased or added nighttime restrictions	7
increased or added passenger restrictions	9
banned cell phone use	8

Strength of graduated licensing programs

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Evaluations of graduated licensing programs in the U.S.

	Age groups	Crash reductions
California	15-17	0%
California	16	17%
California	16-17	28%
Florida	15-17	9%
Michigan	16	29%
North Carolina	16	34%
Ohio	16-17	23%
Wisconsin	16	14%



Effects of Specific Components of Graduated Licensing Systems

Effects of graduated licensing systems

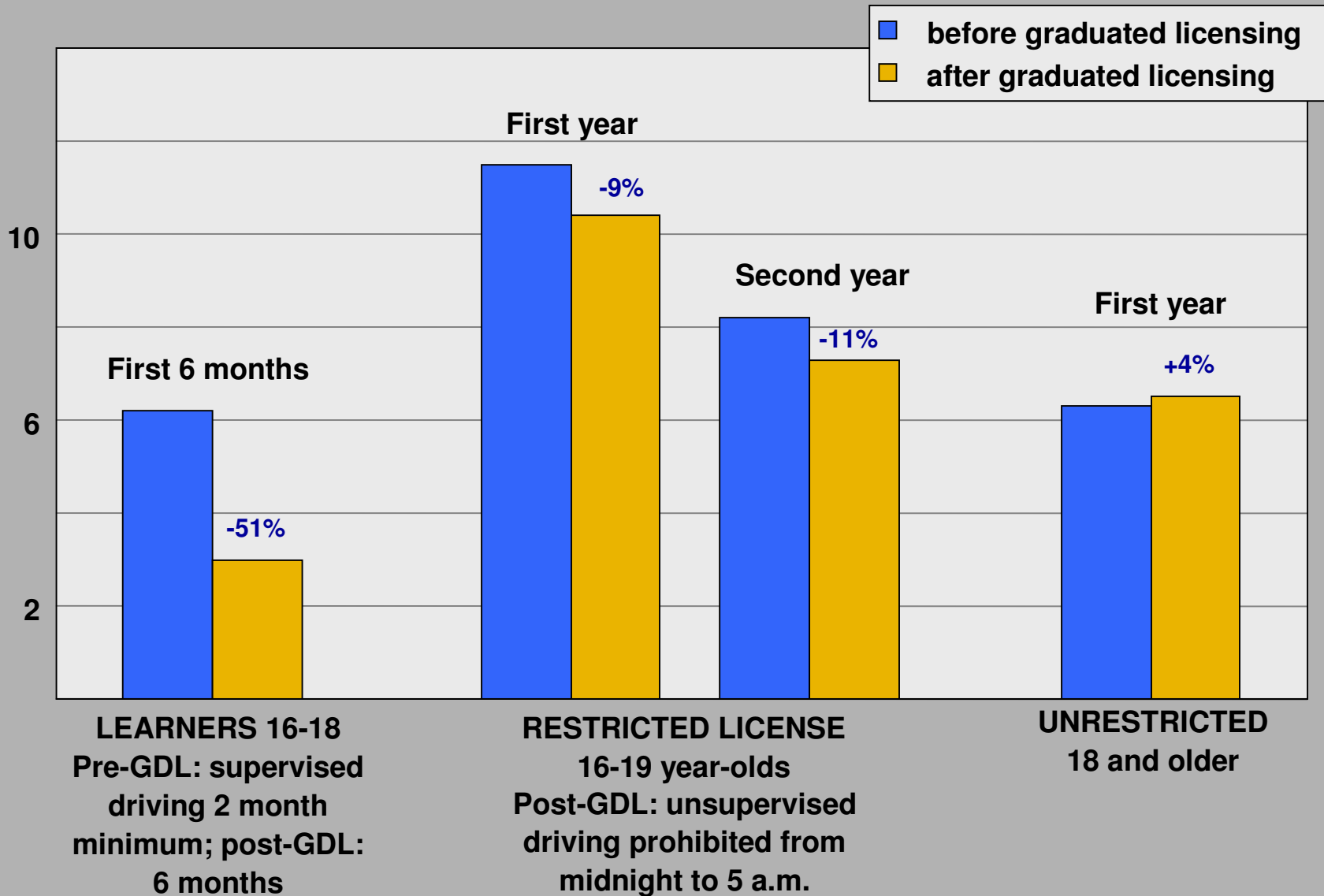
- W Some of overall effects among 16-year-old drivers are due to delayed licensure through longer learner permit periods, raising minimum learner permit age, certified driving requirements, etc.
- W Specific GDL components often directed at more than one crash risk factor

16 year-old driver fatal crash characteristics

Alone versus with teen passengers, 2004

	percent			
	driver alone	1 teen passenger	2 teen passengers	3+ teen passengers
driver error	72	82	83	90
speeding	30	45	50	59
single vehicle	36	51	59	72
0.08+ BAC	9	8	10	12

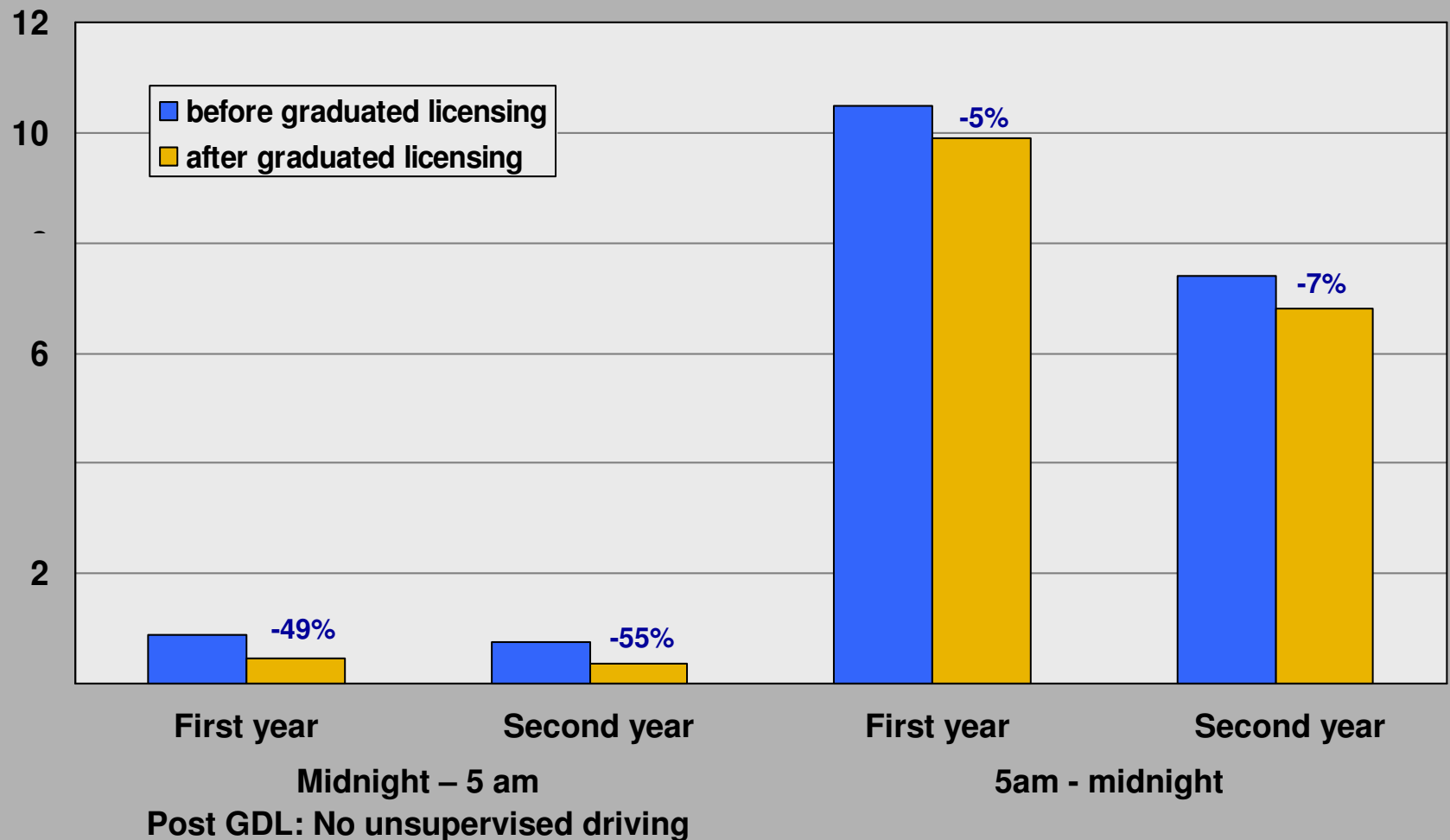
Crashes per 100 drivers per year in Nova Scotia before and after graduated licensing



Nighttime restrictions

- W Reductions in crashes larger during restricted versus unrestricted hours in several GDL systems (e.g., California, Florida, Michigan, North Carolina, Nova Scotia)
- W The earlier the night restriction, the greater the potential safety benefit

Crashes per 100 drivers per year during restricted and unrestricted hours before and after GDL 16-19 year-olds in Nova Scotia



Passenger restrictions

- W Reductions in teenage crashes involving passengers reported in California, North Carolina, and New Zealand
- W Best laws allow no more than one teen passenger

Driver education/training

- W Research has shown that traditional driver education does not reduce crashes
- W Driver education can have a detrimental safety effect if it encourages earlier licensure
- W Novices receiving time discount for completing driver education have higher crash rates than novices who don't (Ontario, Nova Scotia, British Columbia)
- W Effects of second stage driver education unknown

Certified Practice

- W No specific studies of effect to date
- W Swedish research found that novice drivers with about 120 hours of supervised driving experience had 35 percent lower crash risk than those with about 40 hours

No or limited evidence yet

- W Cell phone restrictions
- W Delayed graduation for traffic violations
- W Seat belt requirement
- W Traditional knowledge and skills tests
- W Hazard perception screening tests or training
- W More stringent exit tests

Other potential GDL components

- W Vehicle choice: Some other countries place limits on vehicle horsepower
- W Speed: Some other countries limit vehicle speed or access to high-speed roads for beginning drivers
- W Requiring in-vehicle technology to prevent risky driving, e.g., drinking and driving, speeding

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Causes of the young driver problem

- W Driving inexperience
- W Youthful age
- W Pre-graduated licensing laws that fostered early and easy licensing