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RESEARCH INSTITUTE

Young Driver Safety

Allison E. Curry, PhD, MPH

Center for Injury Research and Prevention

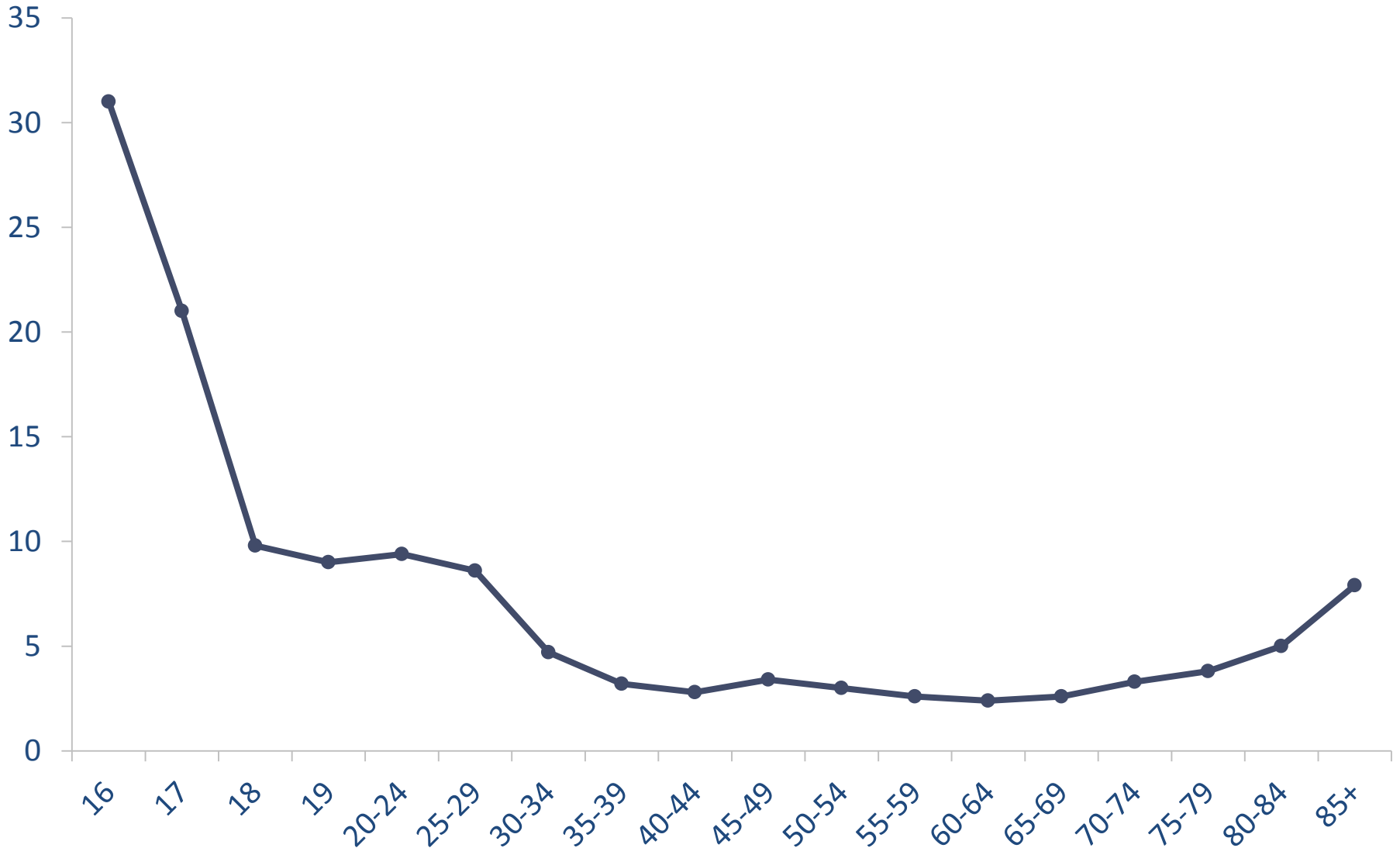
PA Safety Symposium

June 10, 2014



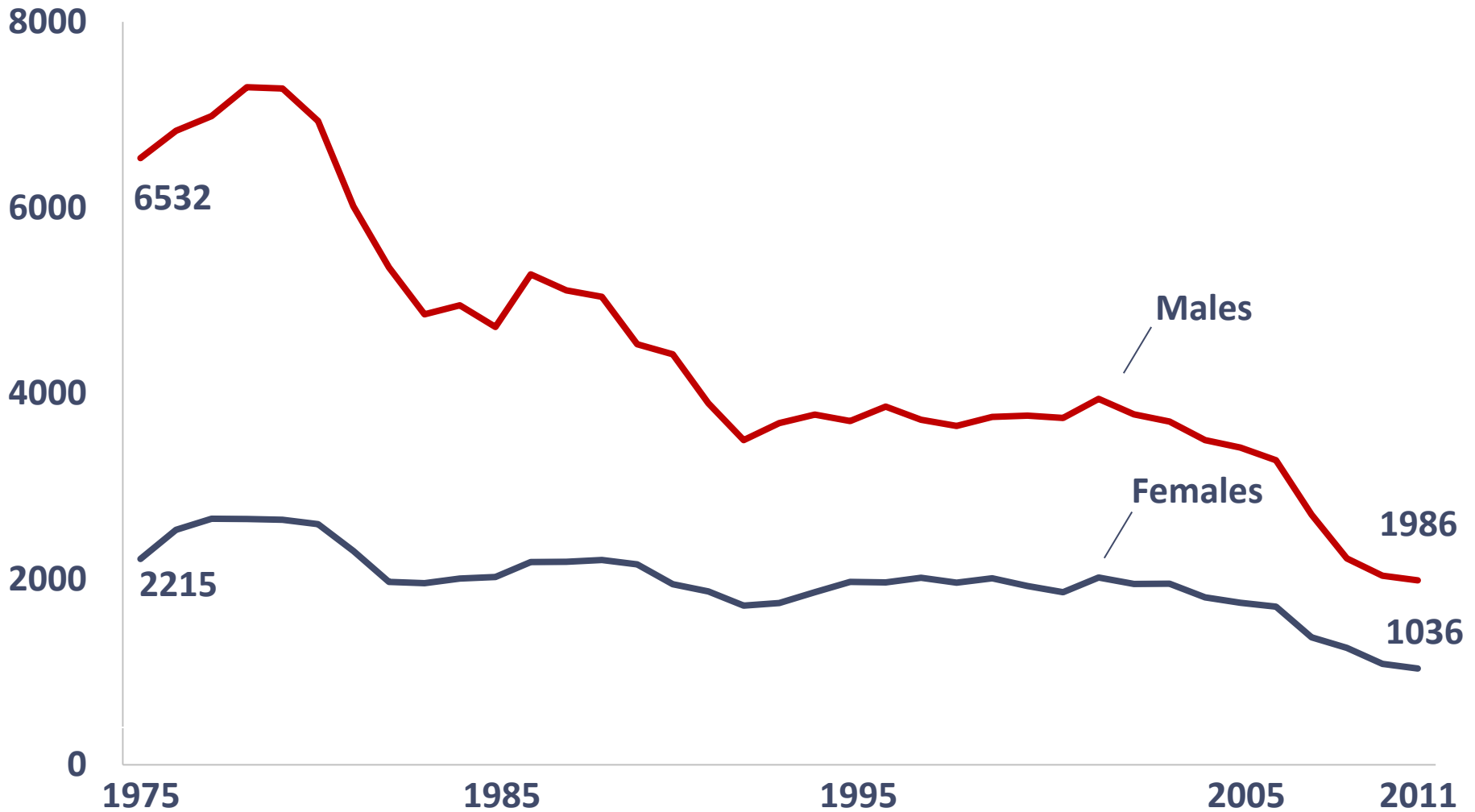
Age-Specific Fatality Rates

Number of Crashes Per 1M Vehicle Miles Travelled



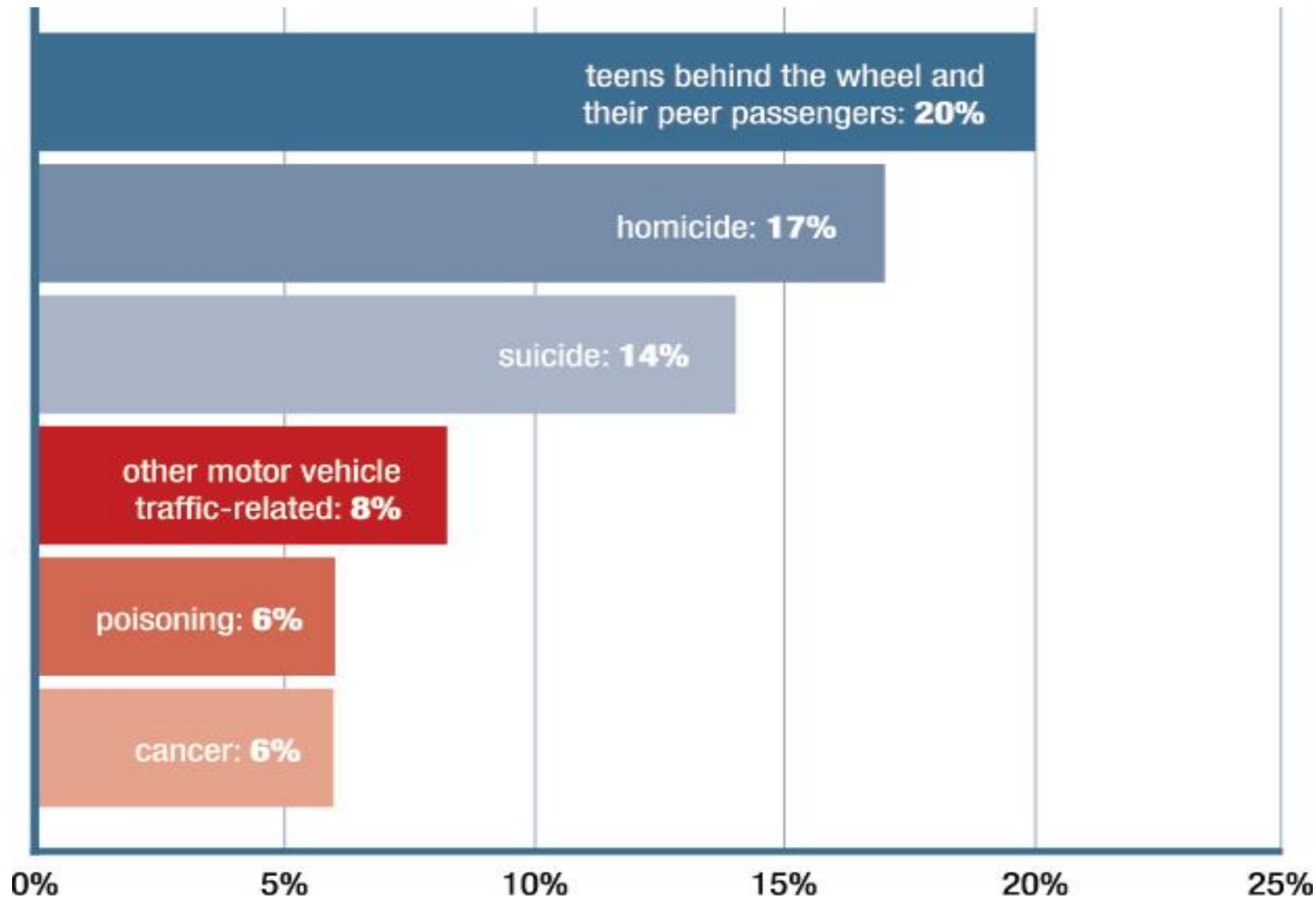
Progress in Teen Driver Safety

65% Reduction in Deaths to 13-19 Year Olds Since 1975



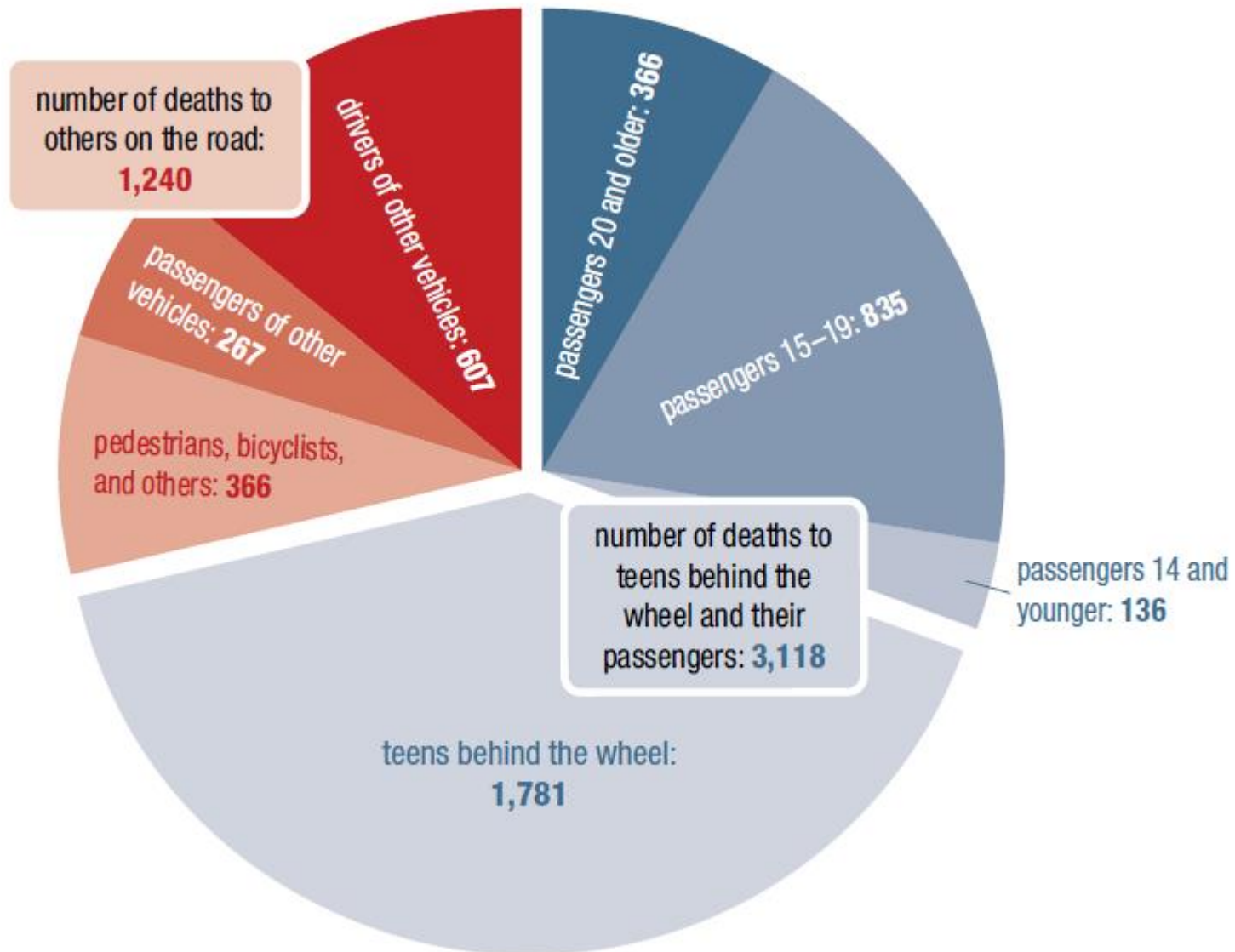
Motor Vehicle Crashes

Leading Cause of Death, age 15-19, 2009



Not Just a “Teen Problem”

3 in 10 Deaths to Those Outside Teen’s Vehicle



Why Do Teens Crash?

Underlying Factors

- **Inexperience**
- Developmental factors

Proximate Factors

- Risky Driving Behaviors
- Distraction

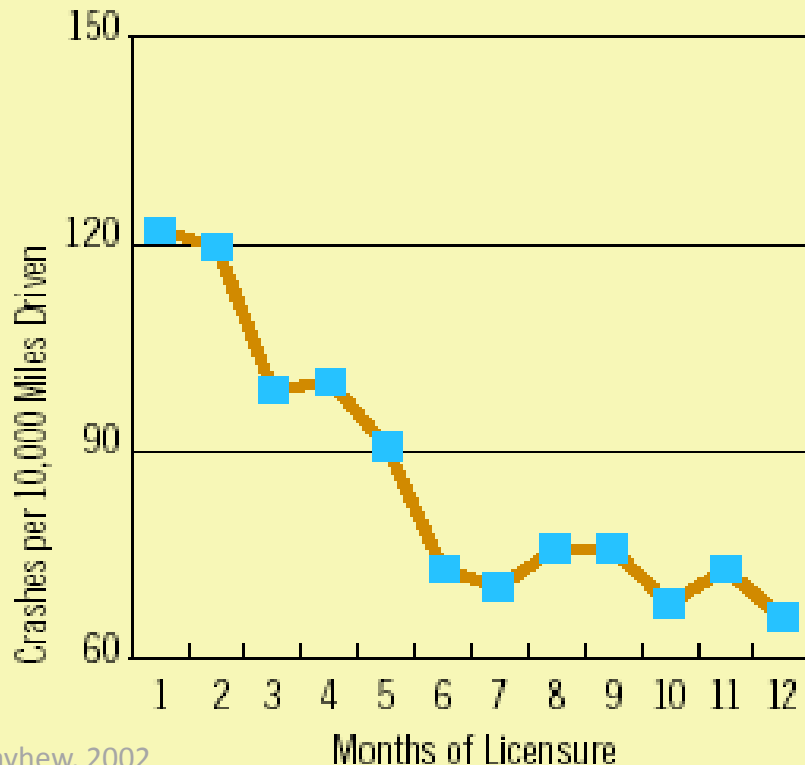


Inexperience

Highest Lifetime Risk: First 6 Months of Independent Driving

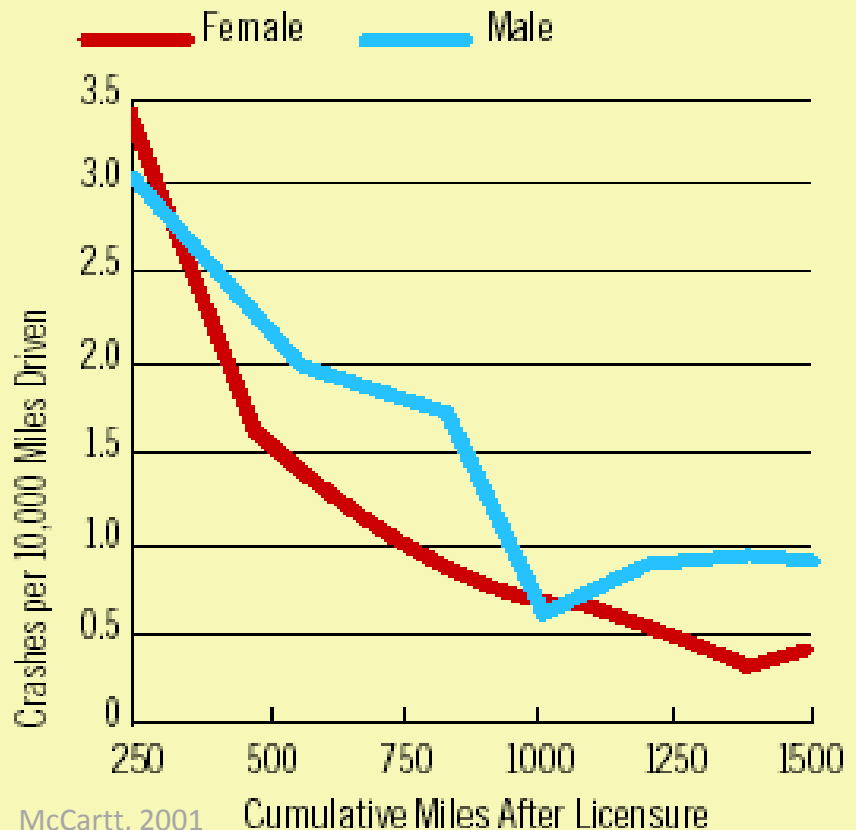
Novice Driver's Risk Begins To Drop With Experience

There is a steep drop in the crash risk as new drivers gain experience during the first 12 months of driving.



Novice Driver's Risk Begins To Drop With Experience

The crash risk drops by more than 2/3 after the first 1000 – 1500 miles of independent driving.



Inexperience

Hazard Detection



Compared with experienced drivers, young drivers:

- Slower to respond to hazards along periphery
- Spend less time scanning critical areas of roadway where hazards likely to appear
- Less frequent and lower emotional reactions to hazards

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Developmental Factors

Prefrontal Cortex Still Developing

Responsible for executive functioning:

- Selective attention
- Decision-making
- Self-regulation
- Multitasking



Why Do Teens Crash?

Underlying Factors

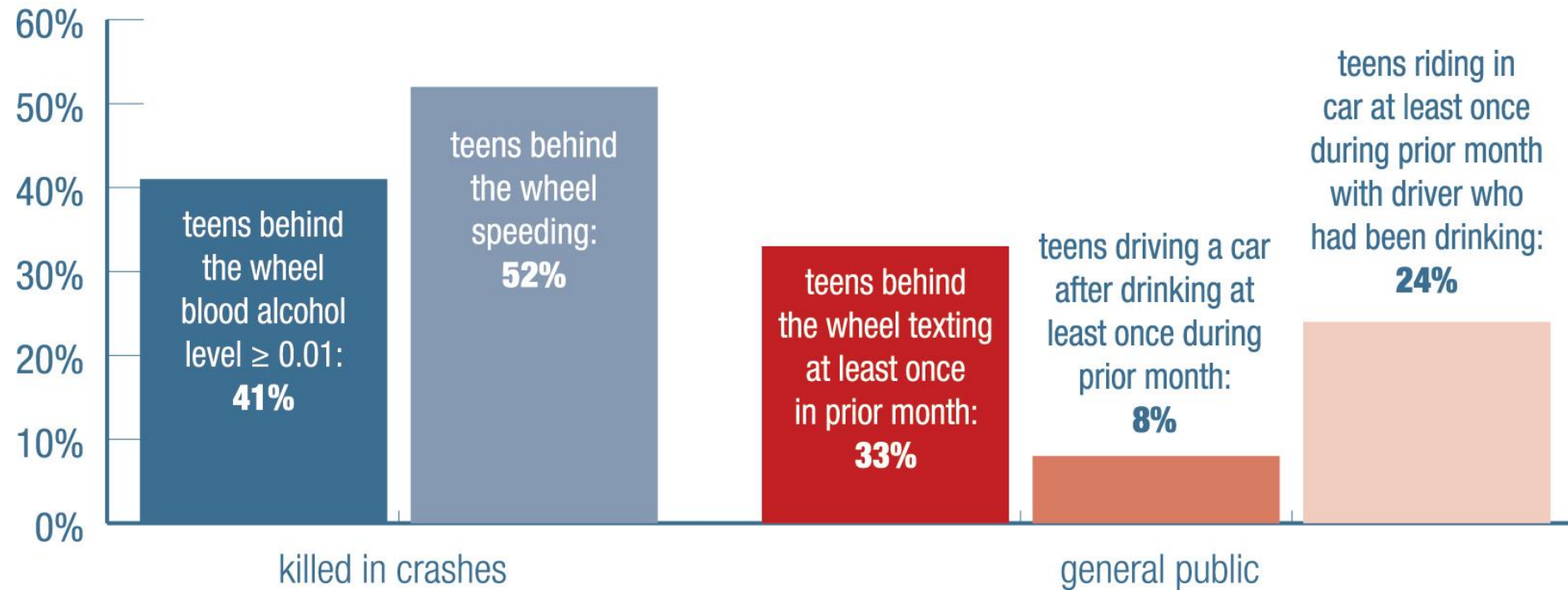
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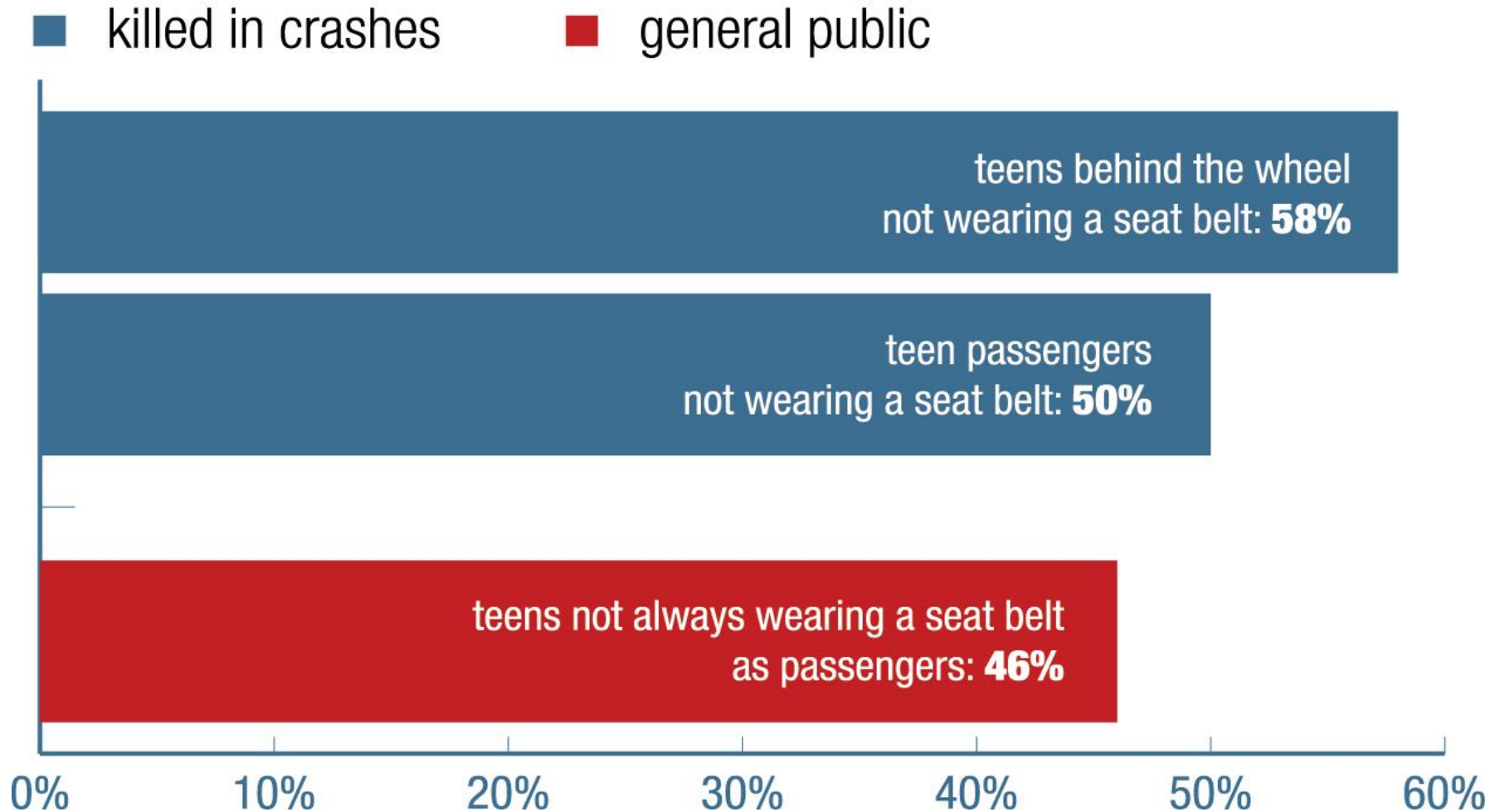


Key Risky Driving Behaviors



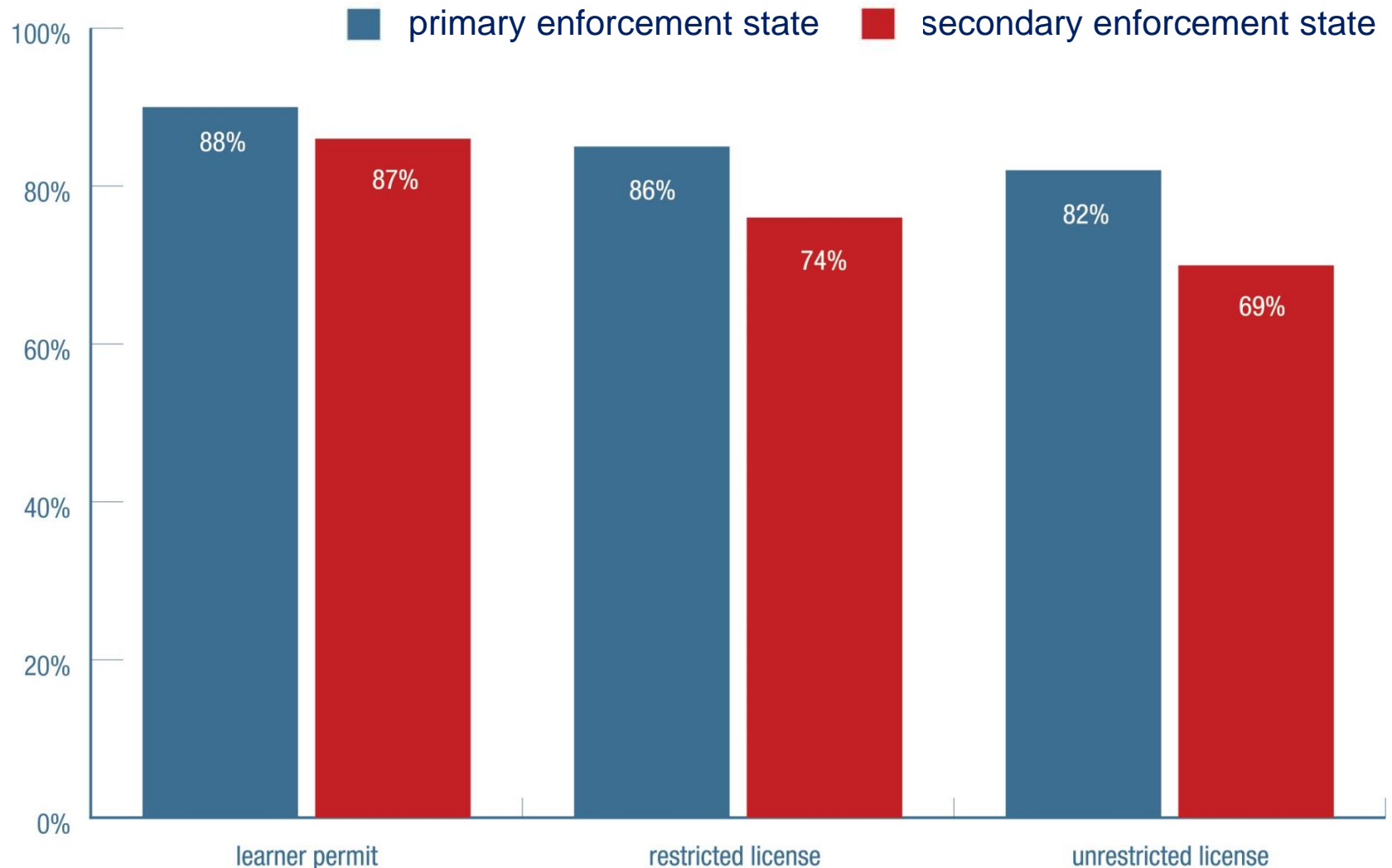
Key Risky Driving Behaviors

Seat Belt Use By Teen Drivers and Their Passengers



Teen Driver Seat Belt Use

By License Type and State Law



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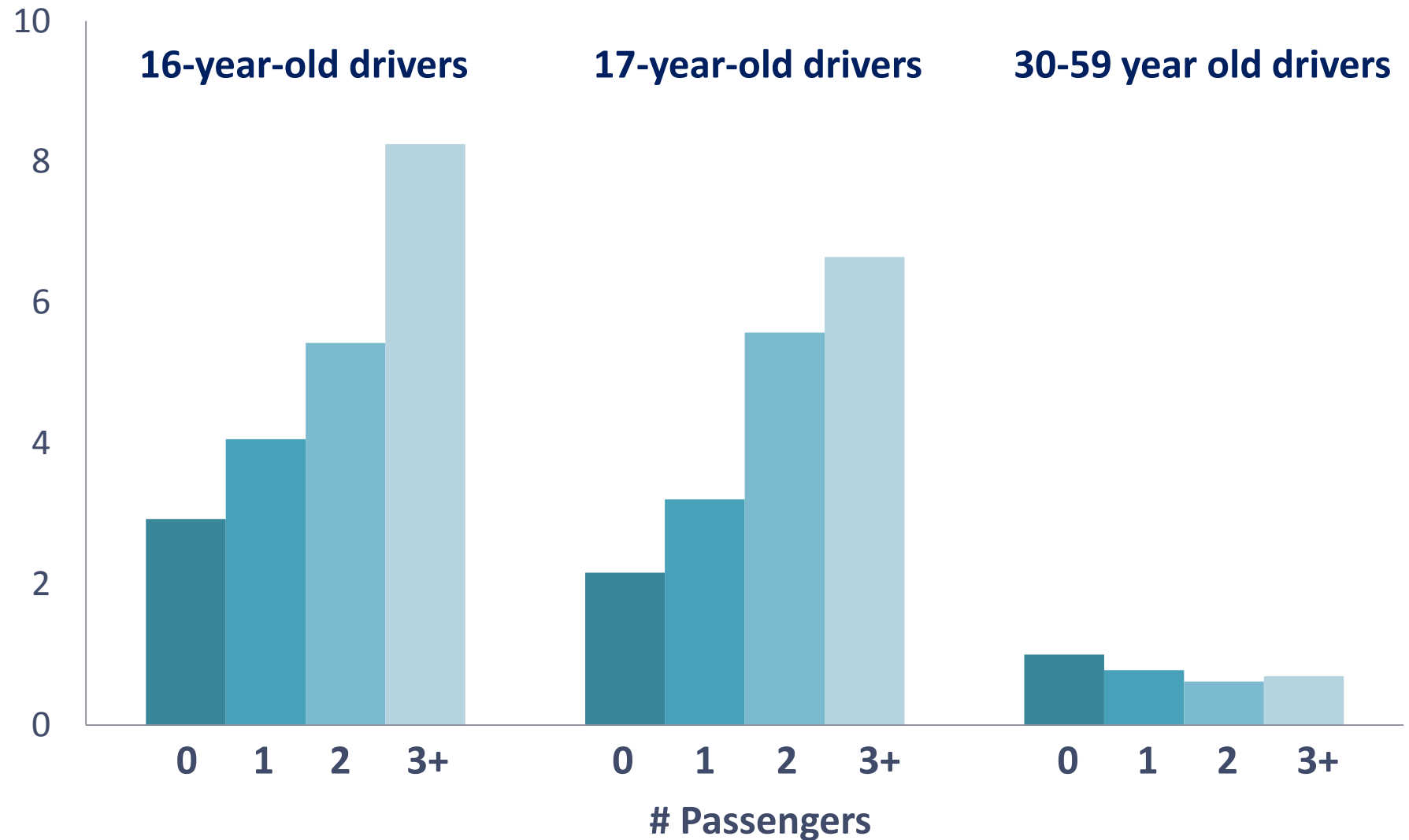
Proximate Factors

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Passenger Effects

Crashes per 10,000 Trips, by Number of Passengers



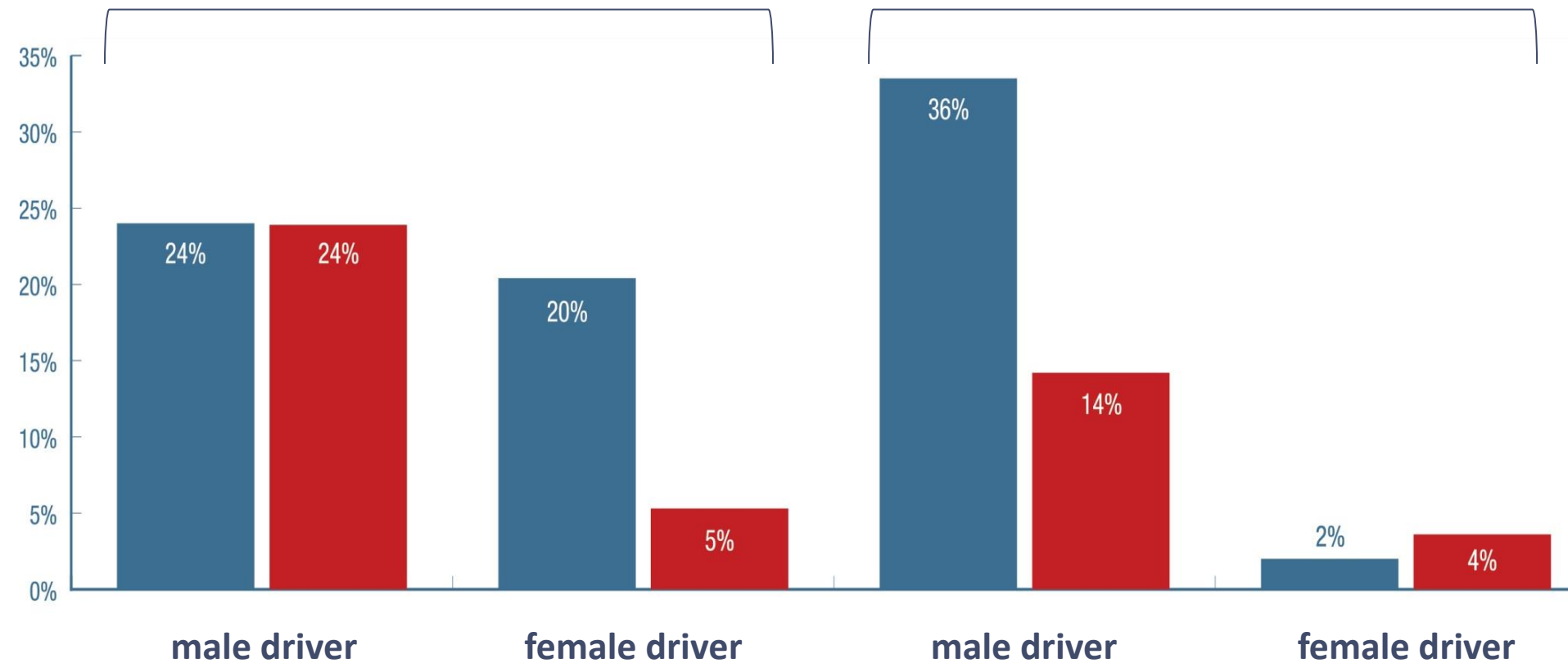
How Peer Passengers Affect Teen Drivers

Right Before A Serious Crash

■ driving with peer passengers ■ driving alone

in-car distraction

aggressive act



Electronic Equipment Use

Cell phone use: crash risk ↑ **4X**
when driver on cell phone

Texting

- Takes driver's eyes from the road for **≈4.6 sec**



Most Common Critical Errors

Among Teen Drivers in Serious Crashes

75% due to teen driver error

Of all teen critical errors:

21% not properly detecting/responding to hazards

21% too fast for conditions

19% distracted by something in or outside vehicle

Graduated Driver Licensing Systems

Reduces Crash Risk by up to 40%

Reduce risk by:

- (1) Increasing minimum age of licensure
- (2) Introduction of intermediate phase

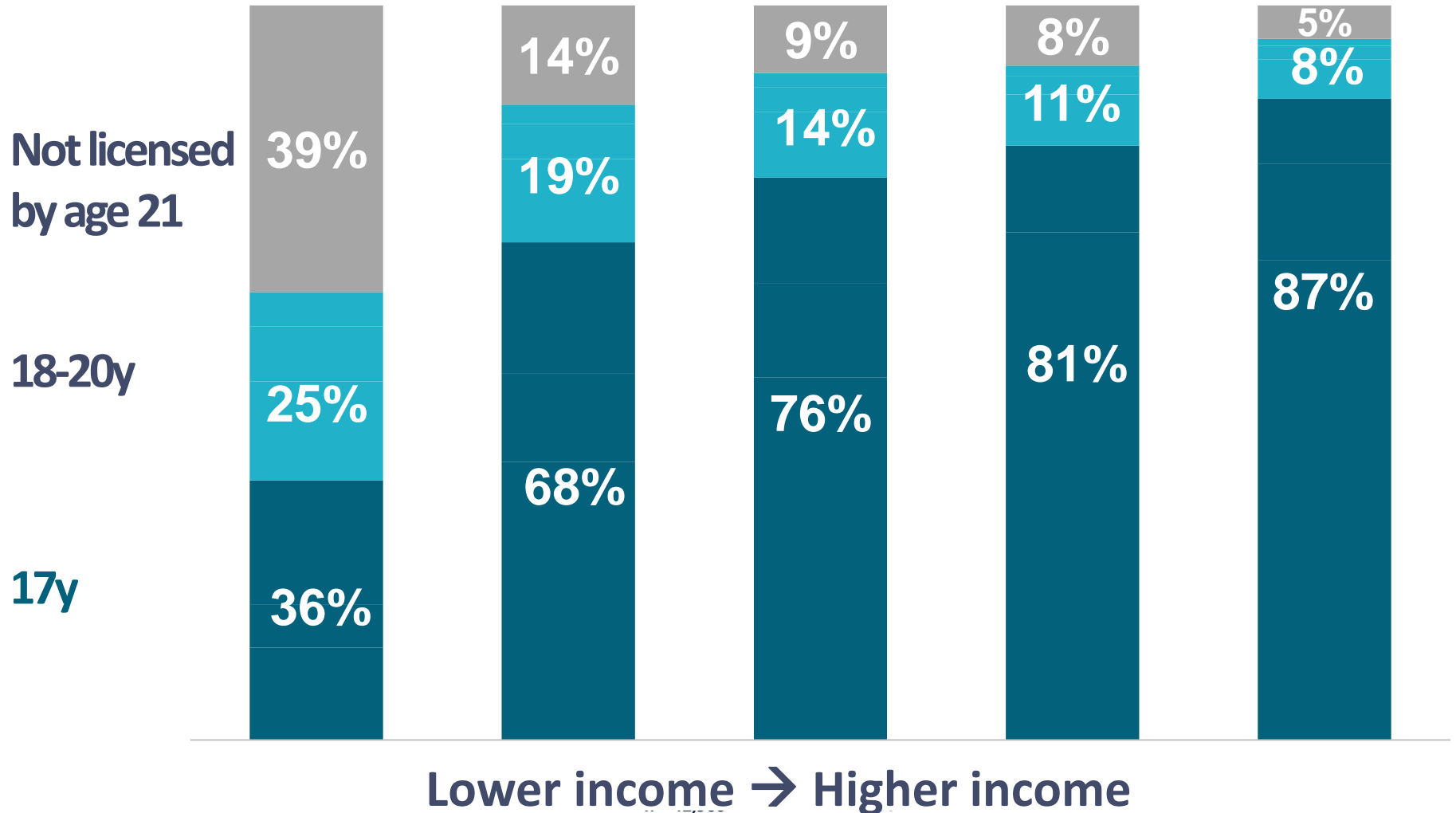
Limitations:

- (1) Incomplete coverage
- (2) Enforcement and compliance



Teens Delay Licensure: Broader Coverage Needed?

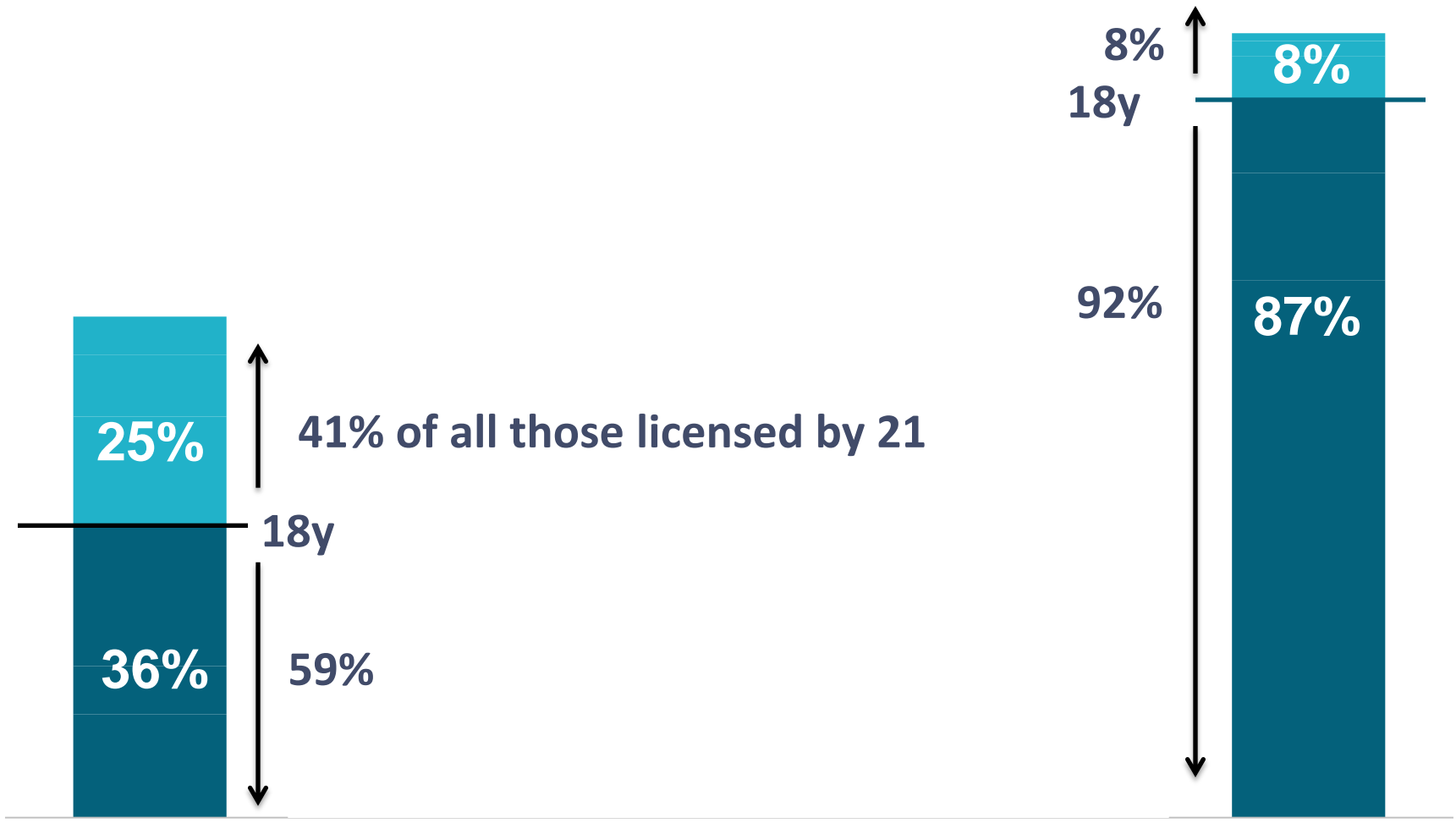
NJ Licensing Rates by Income Quartile



Lower income → Higher income

Teens Delay Licensure: Broader Coverage Needed?

NJ Licensing Rates by Income Quartile

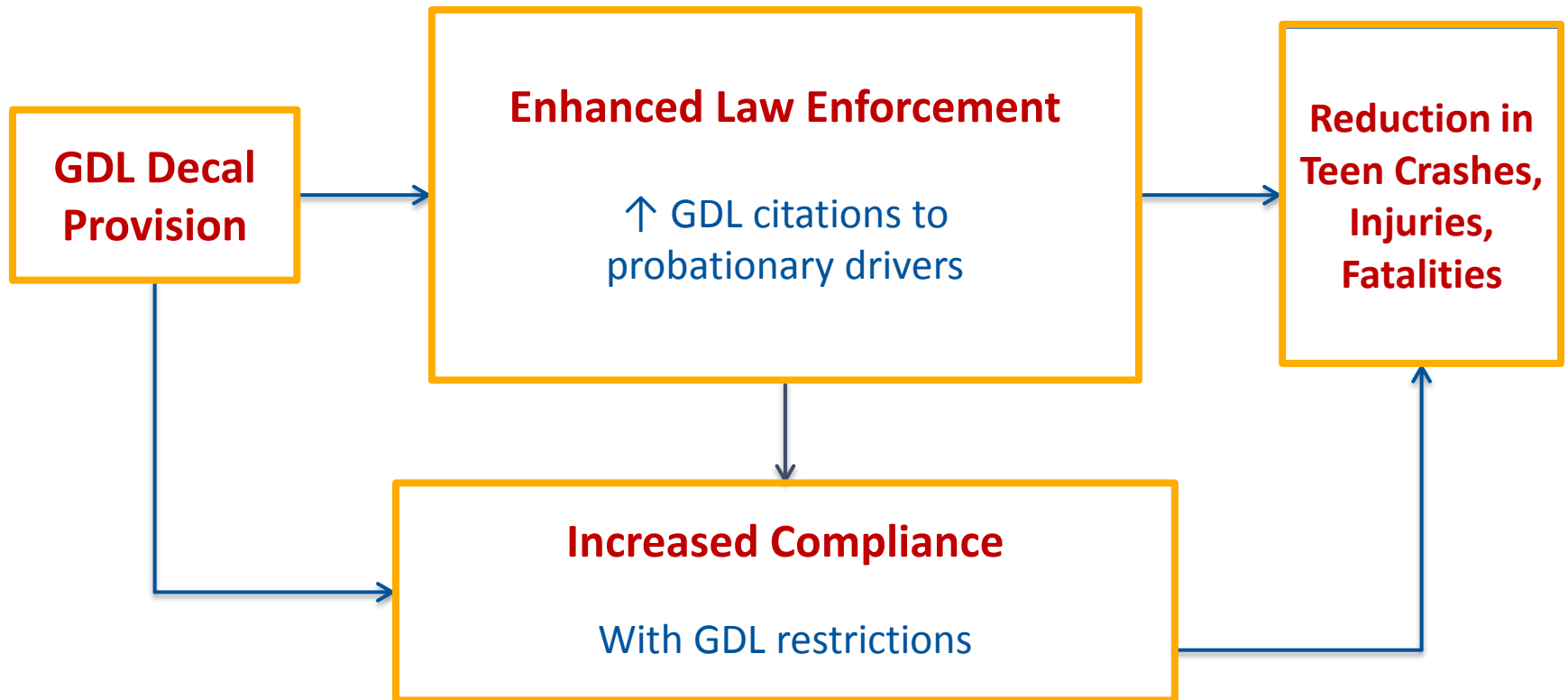


Lower income → Higher income

Source: Curry et al, AAA Foundation, in press.

Limitations in Enforcement and Compliance

New Jersey's GDL Decal Provision



Major Evaluation Findings

Among NJ Intermediate Drivers



GDL citation rate: 14% ↑ in one-year post-decal period

Crash rate: 1.8%/yr ↓ in four-year pre-decal period
7.9%/yr ↓ in two-year post-decal period

Estimated # NJ intermediate drivers whose crashes were prevented by provision one year post-decal: 1,624

Teendriversource.org

The Children's Hospital of Philadelphia | Research Institute

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teendriversource

Research put into action

Who We Are



We can all help keep teens safe on the road. Whether you're a teen, parent, policymaker, educator, or researcher, this site will support your efforts with free information and downloadable resources. Together we can make a difference.

How can we help you today? Pick the group that best describes you

- I educate & support teens
- I educate & support parents
- I educate & support policymakers
- I am a teen
- I am a parent/guardian
- I am a researcher

For communities

New Driver Headquarters

RIDE LIKE A FRIEND

Driving with a chatty clueless passenger isn't just annoying – it can be deadly. Distractions cause crashes, and nothing kills more teens than crashes. Help find ways to ride like a friend, and let others know what's important. Weid that just showing a little respect can save lives. But it can. Help us find solutions. And spread the word.

ROLLOVER TO CHECK OUT TWO WAYS TO ACT BELOW:



TAKE CONTROL

VENT

TEENS | ORGANIZERS | PARENTS | NTDSW |

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FACEBOOK COUNTDOWN APP

NATIONAL PASSENGER GRIPE SURVEY

RULE-SETTING TOOL

DRIVE LIKE YOU CARE

Don't risk friends' lives. Newly licensed drivers should wait 1,000 miles or six months before offering rides to another teen, scientific evidence shows. Wait another six months before driving more than one teen.

See what experts recommend



EVER WISH YOUR CAR HAD ONE MORE BUTTON?

Distraction passengers are not just annoying, they're dangerous. So, when a friend distracts you, consider using two words: Just Chill. Whether or not you're in the driver's seat, you can take on today's number one teen killer – car crashes. As a passenger, show respect. As a driver, take control.

Ride like a friend. Create the car you want.

Just Chill is a free app. Download it on your phone. Use it when you're in the car. It's a great way to help your friends stay safe. It's also a great way to help your friends stay safe. It's also a great way to help your friends stay safe.




For educators

For more information visit www.teendriversource.org

ENHANCING EDUCATION TO KEEP TEENS SAFE ON THE ROAD

Training Tools for Workplace, School, and Community Educators

REFERENCE GUIDE



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For families

TEACH YOUR TEEN TO BE A SMART PASSENGER

SET HOUSE RULES AND REDUCE CRASH RISKS FOR YOUR TEEN

Learn the facts www.chop.edu/you

Learn the facts and get advice about teen driver safety at www.chop.edu/youngdrivers and www.statefarm.com/teendriving.

The Children's Hospital of Philadelphia
Hope lives here.

State Farm

Thanks!

currya@email.chop.edu

