

# Protecting Young Drivers: Barriers to Progress, Keys to Success

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Institute of Medicine Workshop  
Contributions of the Behavioral and Social Sciences  
in Reducing and Preventing Teen Motor Vehicle Crashes



# Preview:

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Knowledge into action

GDL as an example

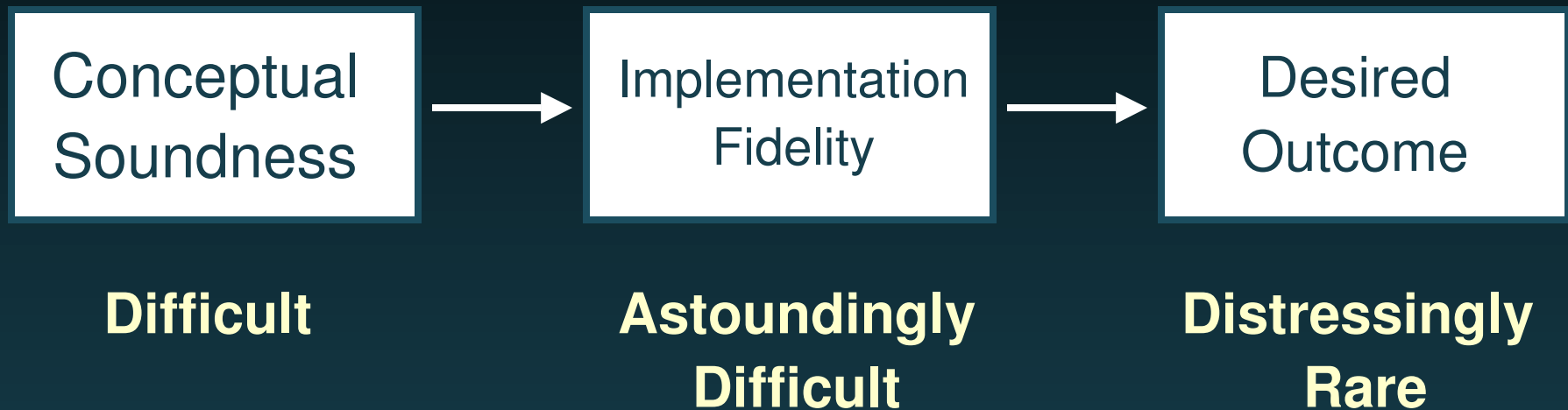
Detail on NC GDL Effects

Other promising directions



# Elements of Intervention Effectiveness

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# Trouble on the road to application:

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Humans difficult to change

This isn't "Rocket Science" ... it's harder!

Tendency to oversimplify

15  $\neq$  17  $\neq$  19

Driving issues vs. behavior issues

Self-handicapping

Fail to use available knowledge

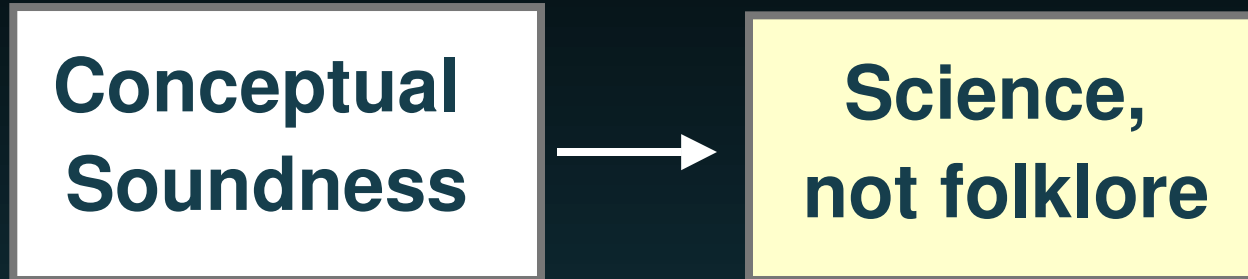
Misuse of groups (focus & other)

Association  $\neq$  cause



# Effective program ...

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Understand phenomenon

Well-supported theory invaluable



# Effective program ...

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Implement with fidelity

Need second-order understanding ...

Phenomena involved in implementation

Communication complexity

Dyadic, group, mass

Organizational behavior

Political functioning

Well-supported theory invaluable !



# Remembering Social Psychology

## HUMAN BEINGS ARE NOT VERY EASY TO CHANGE AFTER ALL

Saturday Review - June 3, 1972

An unjoyful message and its implications for social programs

A while back there was a severe shortage of electricity in New York City, and Columbia University tried to help out in two ways: A card reading "Save a watt" was placed on everyone's desk and janitors removed some light bulbs from university corridors. The way in which this shortage was made up for illustrate two major approaches to social problem solving. One approach is based on the assumption that people can be taught to change their habits, that they can learn to remember to switch off unused lights. The second approach assumes that people need not, or will not, change and instead alter their environment so that, even if they leave light switches on, watts are saved.

The prevalent approach in the treatment of our numerous and still-multiplying social problems is the first. Imbedded in the programs of the federal, state, and city governments and embraced almost instinctively by many

BY AMITAL ETZIONI

Solving social problems by changing people is apparently less productive than accepting people as they are and changing their circumstances instead.

\$27 million is used to make nonsmokers out of smokers—that is, to try to change a basic habit—no significant effect is to be expected. Advertising molds or teases our appetites, but it doesn't change basic tastes, values, or preferences. Try to advertise desegregation to racists, world government to chauvinists, temperance to alcoholics, or—as we still do at the cost of \$16 million a year—drug abstinence to addicts, and see how far you get.

In fact, the mass media in general have proved to be ineffectual as tools for profoundly converting people. Studies have shown that persons are more likely to heed spouses, relatives, friends, and "opinion leaders" than broadcasted or printed words when it comes to deep concerns.

Another area in which efforts to remake people have proved glaringly inefficient is that of the rehabilitation of criminals. We rely heavily on re-educational programs for prisoners. But



# Remembering Social Psychology

**HUMAN BEINGS  
ARE NOT VERY  
EASY TO CHANGE  
AFTER ALL**

Saturday Review - June 3, 1972

$$B = f(p, e)$$

**Implementation  
Fidelity**



**Target Environment  
(via Law, policy, etc.)  
to reach individuals**



# Remembering Social Psychology

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$$B = f(p, e)$$

$$B \approx BI = w_1 \sum_{i=1}^n B_i E_i + w_2 \sum_{j=1}^m NB_j MC_j$$

- + Ability limits
- + System/Environmental constraints/facilitators
- + Agency (self efficacy & responsibility)



# GDL as example ... Program not "Law"

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Provides protection (environment)

- Reduces exposure

- Lower risk exposure

Feasible way to achieve needed practice

- Experienced drivers as mentors

- Free of charge

Provides motivation

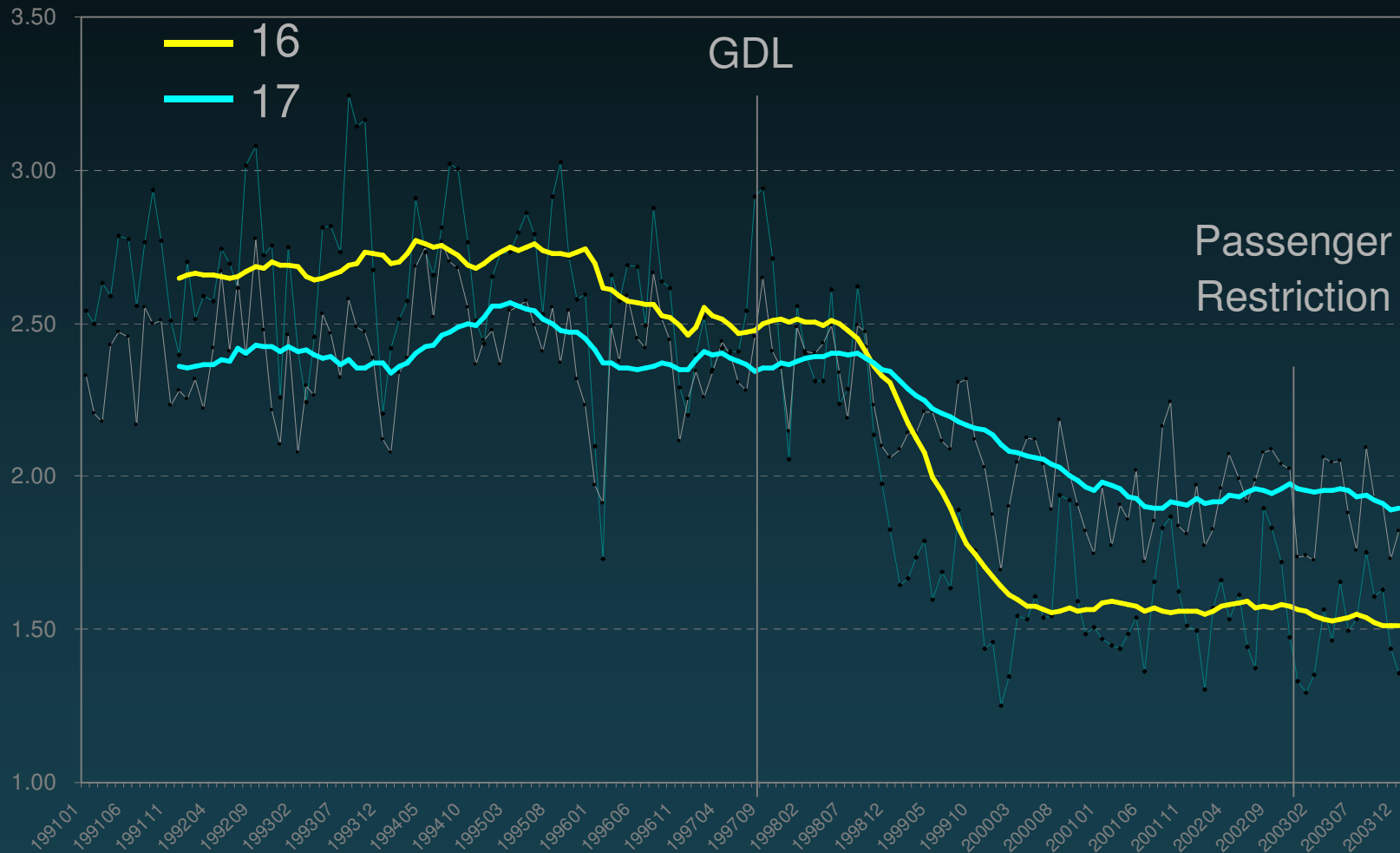
- Reward rather than punishment

Works with little active enforcement

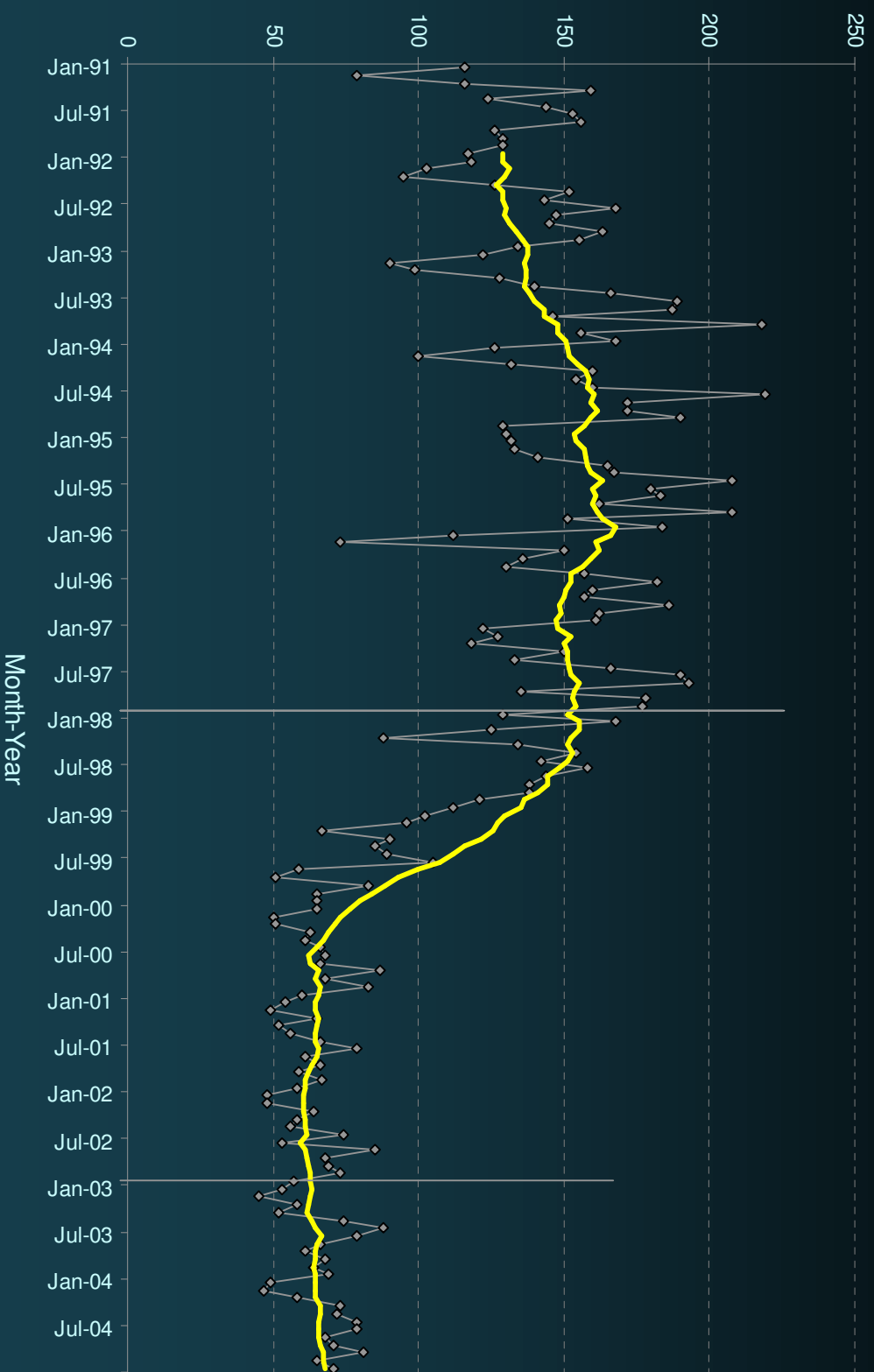
- Supports parents



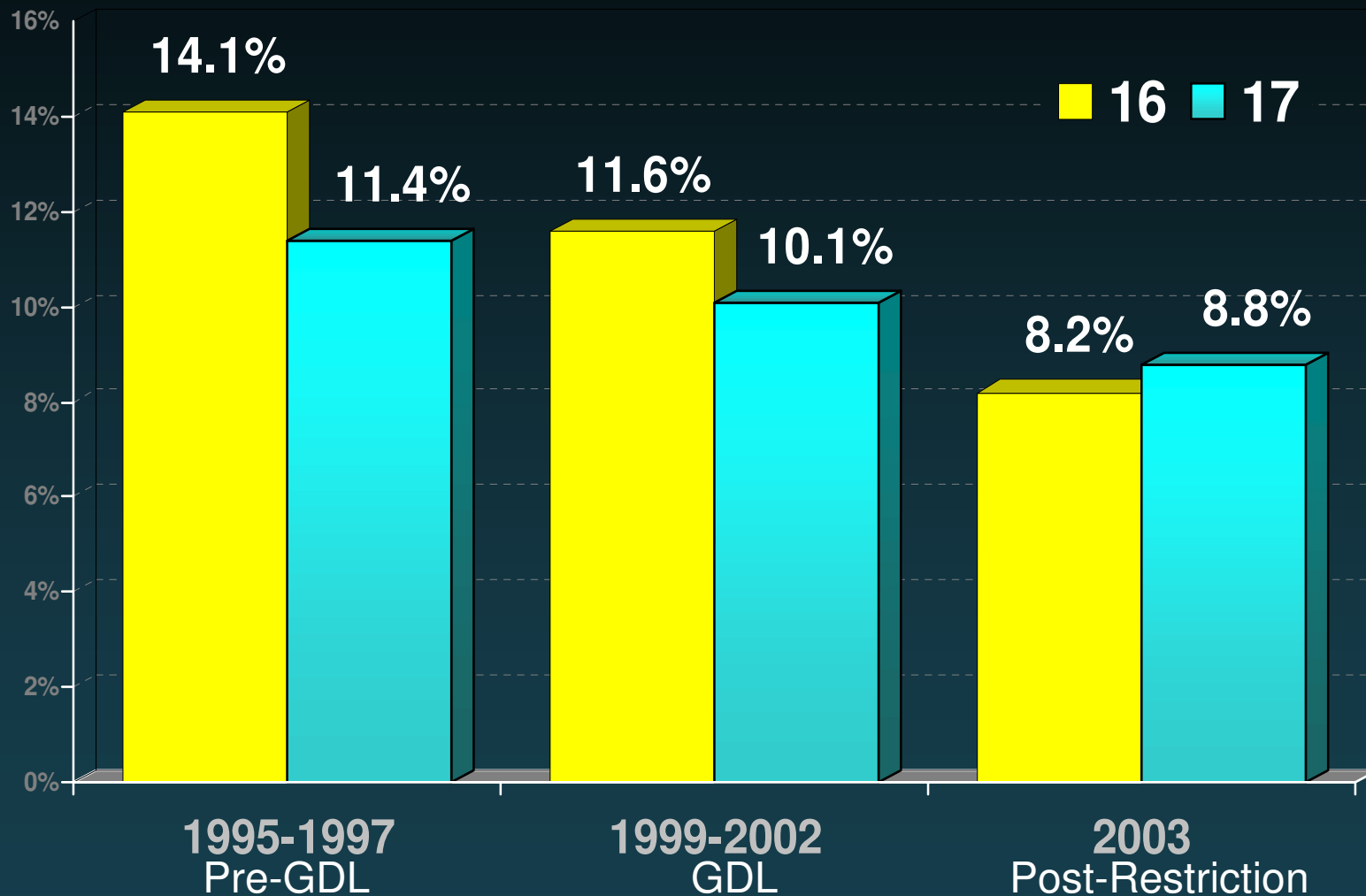
# Crash Rate Ratios for 16 & 17 vs. 25-54 year-olds, NC 1991-2003



# 16 year-old Nighttime crashes (9 pm – 5 am)



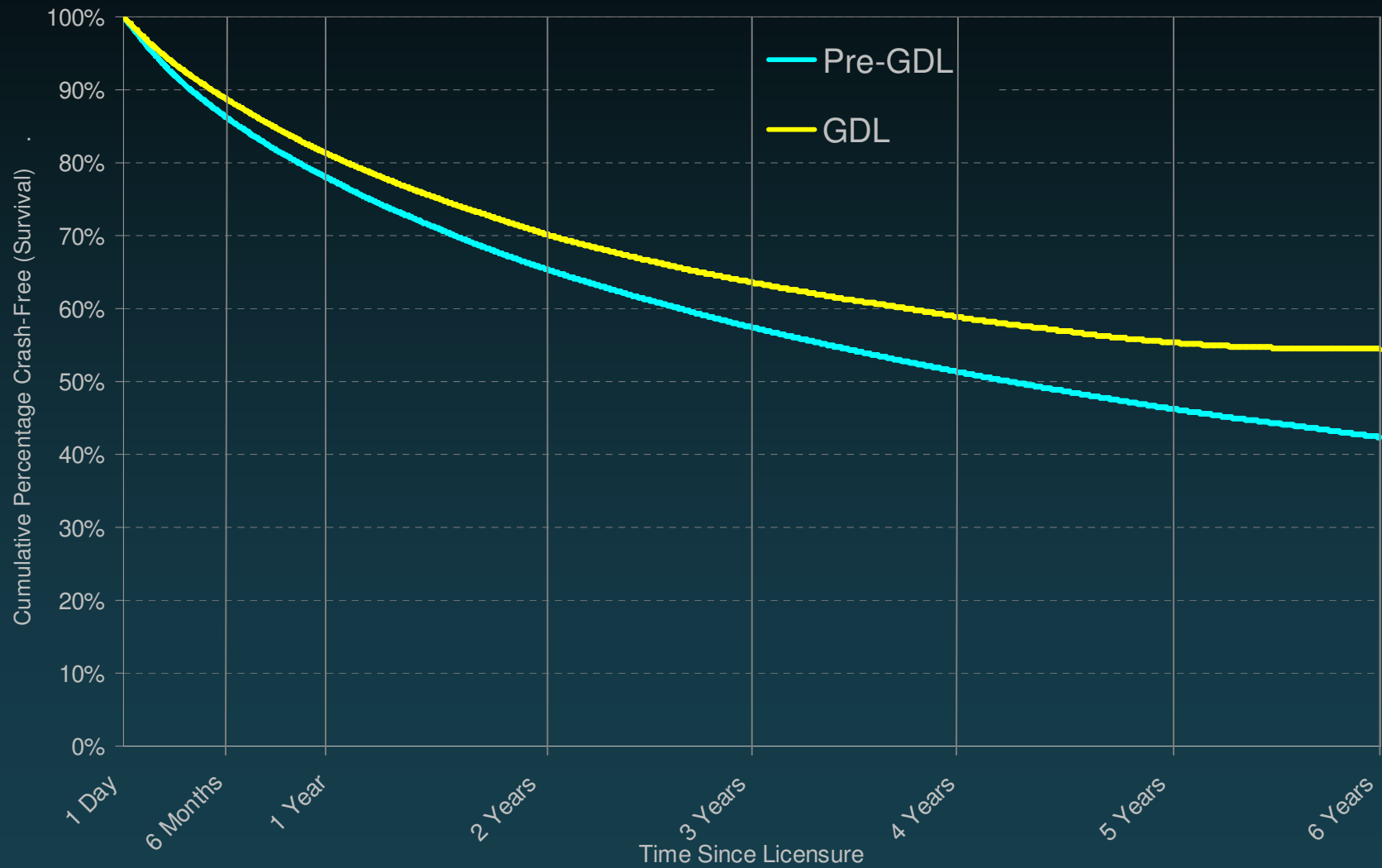
# Multi-Passenger Crashes by Driver Age



Note. Only about 40% of 16 yr-olds and 25% of 17 yr-olds are subject to the passenger restriction.



# Time to first crash: GDL drivers better



# Future policy prospect ...

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Eliminate early school start times

Reduces exposure

Of mostly inexperienced drivers

May reduce fatigued crashes

Secondary benefits

Multiple supporting rationales



# Tried interventions – Proven & promising

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Hedlund - “Countermeasures that work”  
(NHTSA)

Goodwin – “Guide to Reducing Young Driver  
Crashes” (NCHRP/AASHTO)

Both consider

Breadth of use, Conceptual promise

Both find evidence to support

GDL

Wise enforcement

Little else at present



# Often tried – too simplistic

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“Messages” (Facts)

Slogans, PSAs, myriad programs

Advice for parents

Info  $\neq$  Behavior

Increasing punishment

Emergency skills training

Augmenting Driver Education

With trivial changes



# Guidance for parents

NC & TN studies

“Novice Driver’s Road Map”

Conceptually simplistic

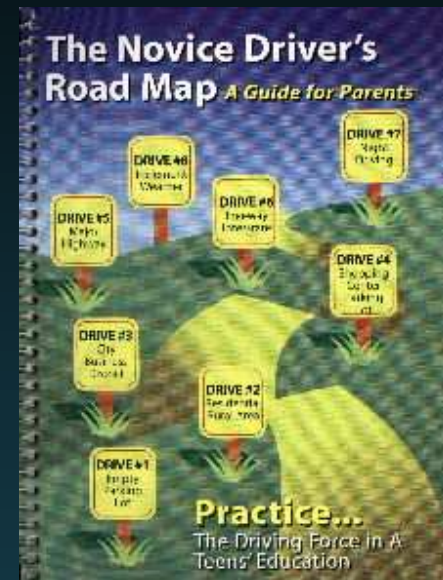
Parents like it

Many didn’t use it

Most didn’t use as intended

No effect on parent behavior

Parents & teens show little intrafamilial agreement in reports of what transpired



# Guidance for parents

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“Checkpoints” program

Conceptually Sophisticated

Some success improving parental behavior

Parental adherence less than ideal

Effect on teens crashes not yet clear



# Ineffective Messaging



