

21 Minimum Drinking Age

The Science Behind The Law

The Failed Experiment



1972

Lowered drinking
age from 21 to 18

17% increase in nighttime fatal
crashes among 18-20 year olds

16% increase in nighttime fatal
crashes among 15-17 year olds

The Failed Experiment

Three studies validate this:

- Williams et al, 1975
- Douglas and Freedman, 1977
- Flora, Filkins, and Compton, 1978

Effects hold when compared with states that did not change their drinking age

The Failed Experiment



1978

Raised drinking age
back to 21

16% decrease in injury crashes where
18-20 year olds had been drinking

Wagenaar, 1986

The Failed Experiment

1974

Lowered drinking
age from 21 to 18

38 percent **increase** in crash
fatalities among 18 to 20 year
olds over the next seven months

Effect held when compared with
states that did not change

Ferreira and Sickerman, 1976

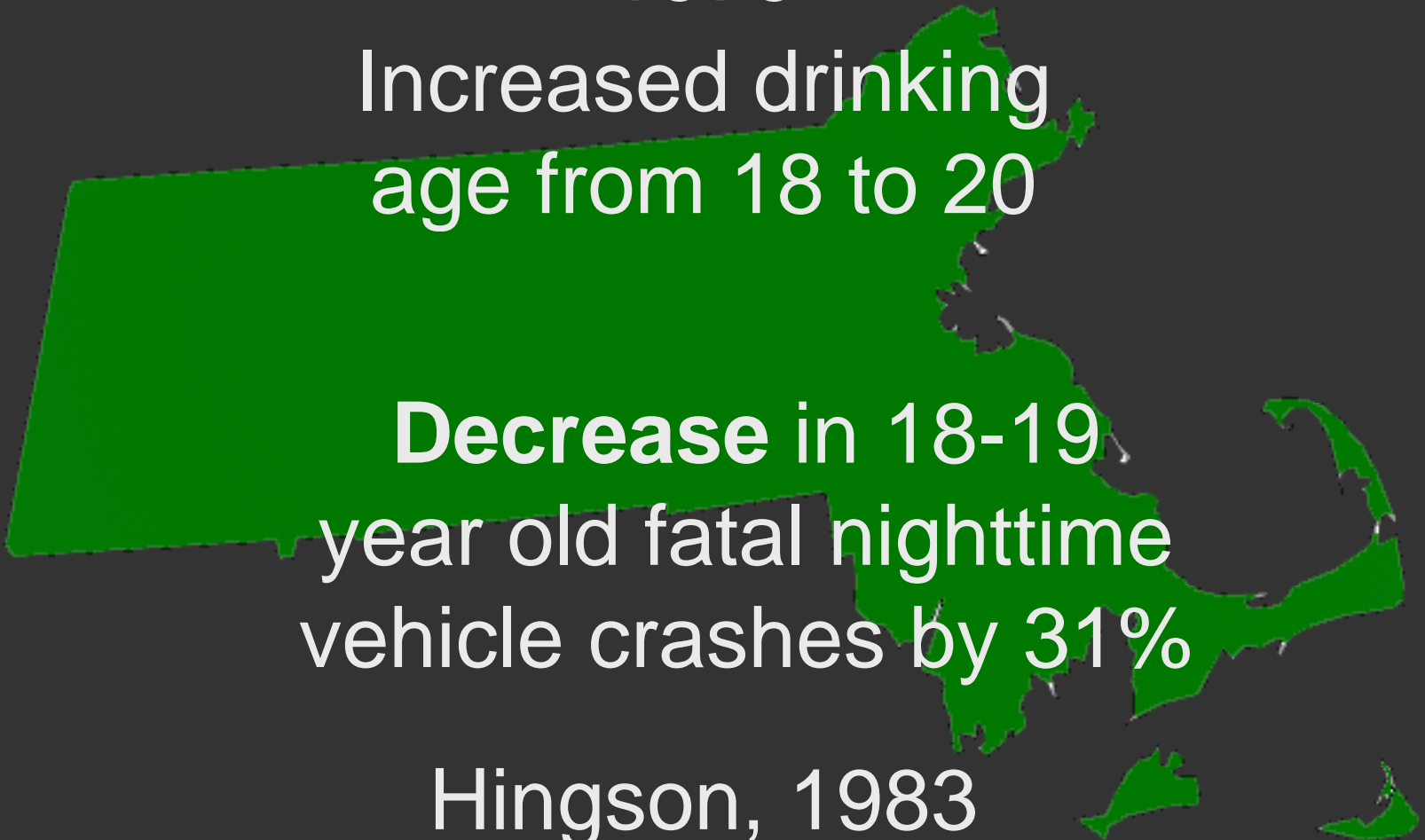
The Failed Experiment

1979

Increased drinking
age from 18 to 20

**Decrease in 18-19
year old fatal nighttime
vehicle crashes by 31%**

Hingson, 1983



The Failed Experiment

1972

Decreased drinking
age from 21 to 18

11% **increase** in nighttime fatal
crashes among 18-20 year olds

23% **increase** in nighttime fatal
crashes among 15-17 year olds

Williams, et al, 1975

The Failed Experiment

1986

Increased drinking age
back to 21 (from 19)

Decrease in drinking crashes by
19 and 20 year olds by 27%

Filgio, 1995

All in all

- Wagenaar and Toomey, 2002
 - Looked at all of the research from 1960 to 2000 – almost 250 studies
 - Of the high-quality analyses of the minimum drinking age's impact on traffic crashes, **every single one of the 46 studies that found an effect found that the 21 MDA saves lives**

All in all

- The CDC looked at all of the high quality peer-reviewed studies on drinking ages
 - Lowering MDA = crash increase of 10%
 - Increasing MDA = crash decrease 16%



The short version



Other groups that believe this

- National Highway Traffic Safety Administration
- The General Accounting Office
- The Institute of Medicine
- The Surgeon General
- The National Institute of Health
- American Medical Association
- National Transportation Safety Board

There is no government agency or organization that disputes the effectiveness of the 21 minimum drinking age.

President Ronald Reagan

“Now, raising that drinking age is not a fad or an experiment. It's a proven success. Nearly every State that has raised the drinking age to 21 has produced a significant drop in the teenage driving fatalities. In the State of New Jersey, whose Governor made it a very personal crusade for himself, the rate dropped by 26 percent; Illinois, it has fallen 23 percent; in Michigan, 31 percent. And when the Commission on Drunk Driving submitted its report, it forcefully recommended that all 50 States should make 21 the legal drinking age.”

The Convenient Untruths

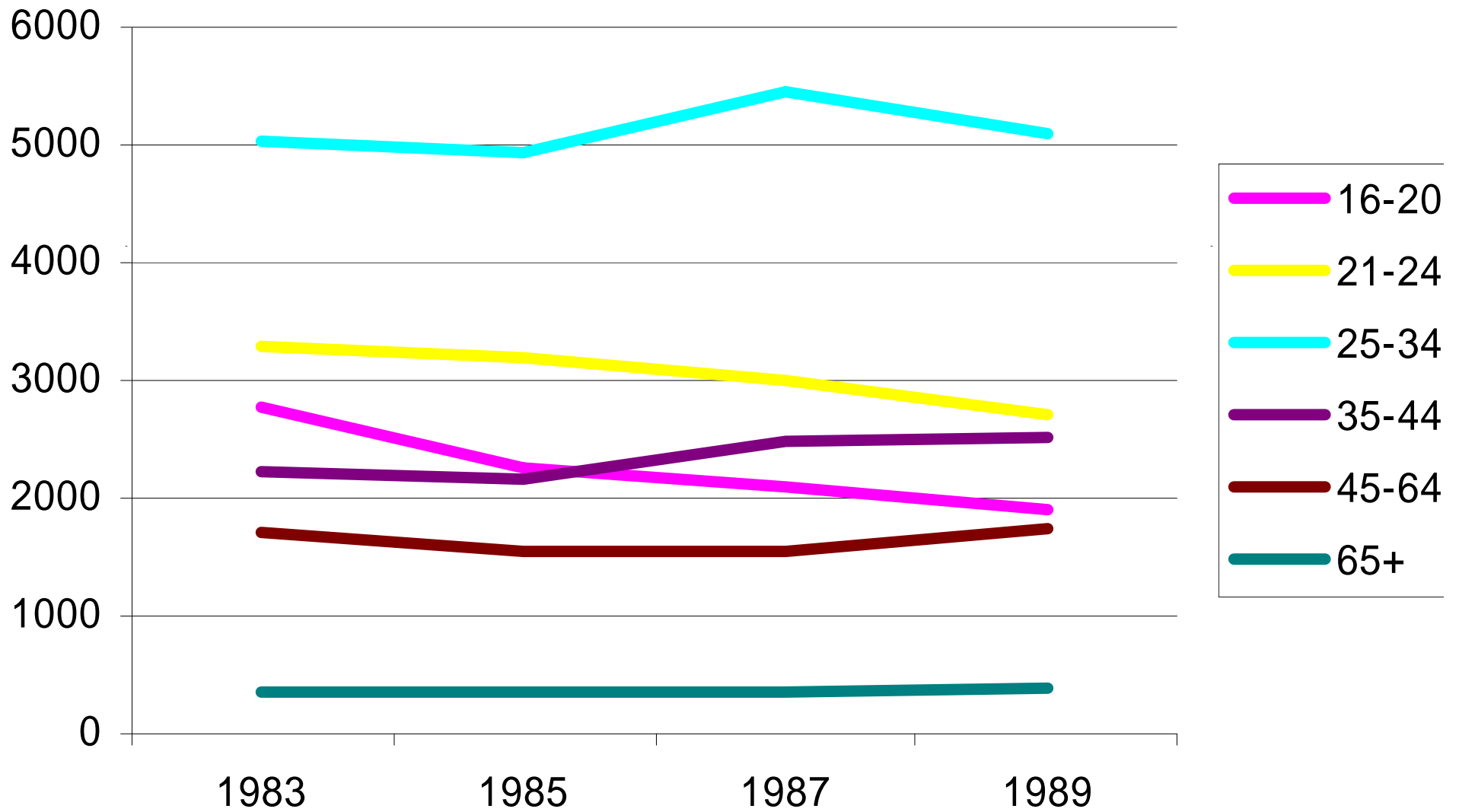
You are entitled to your own
opinion, but not your own facts.

#1:

Alternate Causality

- The 21 minimum drinking age saved lives
- There was nothing with a separate impact that caused this (e.g., belts, air bags, engineering)
- Look at 1983-1989

Drivers at a .10+ BAC involved in fatal crashes



1983-1989

- Decrease in fatal drunk driving crashes of 2211
- Only two age groups had decreases
 - 16-20 year olds (which decreased 32 percent)
 - 21-24 year olds (which decreased 18 percent)

Not coincidentally, those are the two groups affected by the 21 minimum drinking age during this time period

1983-1989

- External factors couldn't have caused this
 - You wouldn't have seen a drop among young people only
 - You wouldn't have seen the **immediate** changes discussed in the previous studies
 - You would have seen it in all states instead of changing in the states that changed their laws and not in those that didn't.

The New Fell Study

- Looked at fatal crash rates at outcome
- Controlled for other laws (seat belt, ALR, etc.), belt usage rates, regional differences, etc.
- Found 11.2% reduction in fatal crashes from just the purchase and possession laws
- Additionally, a 7.3% reduction for each step improvement in a state's fake ID law
- Fell, et al. "The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States." Accident Analysis and Prevention. 2008.

#2: The Shift

- The 21 minimum drinking age saved lives
- There was no increase in fatalities at an older age group
- We could look at that last graph again (which showed 21-24 year olds fatalities decreasing)
- Or we could take the longer view

Change in Drinking Drivers in Fatal Crashes (from NHTSA)

Age	Number of Drivers	Drivers per Change, 1998
Under 21	-56%	-46%
21-24	-56%	-46%
25-54	-24%	-43%

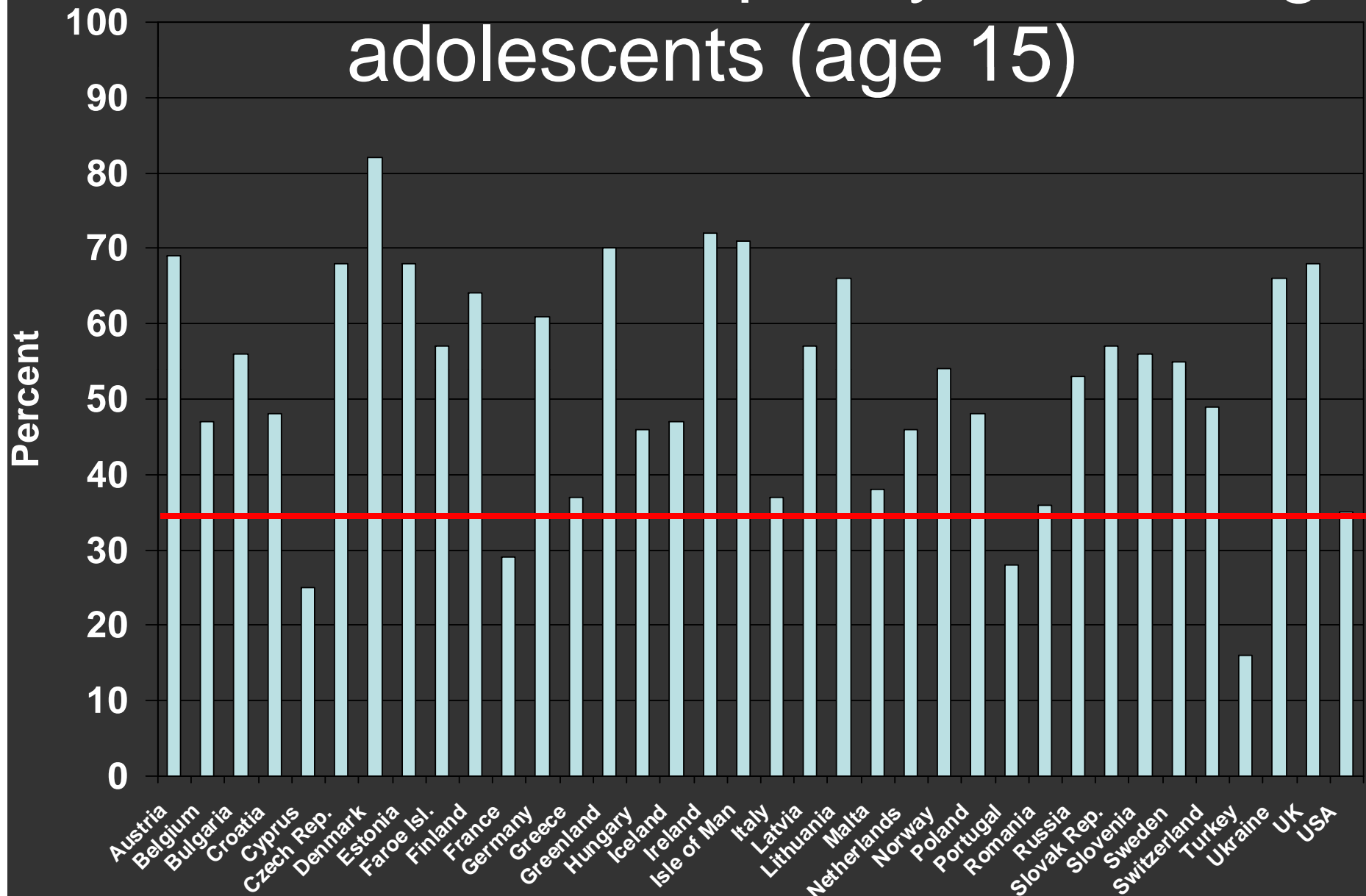
Clearly, something happened in this timeframe that reduced fatalities among younger people much more than among older people

#3:

“Training to Drink”

- The 21 minimum drinking age helps combat binge drinking
- “Training to drink” doesn’t work

Intoxication in the past year among adolescents (age 15)



Data from ESPAD 2003 – of 35 European countries, 31 had a higher percentage of 15-year olds who had been drunk in the past year than in the US

And France is getting worse



Thursday, Jul. 17, 2008

French Combat Youth Binge-Drinking

By Bruce Crumley / Paris



Empty beer bottles left in a pile at a camping site in eastern France

- 50% increase in 15-24 year olds hospitalized for excess drinking since 2004
- 50% of 17 year olds reported being drunk in the past month
- Alcohol is the leading factor in deaths among French youth

Case Study: New Zealand

- In 1999, New Zealand lowered its drinking age from 20 to 18
- Alcohol-involved crash rates skyrocketed
 - Among 18 and 19 year olds (12% increase for males; 51% for females)
 - Among 15-17 year olds (14% increase for males; 24% for females)
- New Zealand is now considering returning to 20 or increasing to 21

From Matt Robson, a New Zealand MP

“The hope in 1999 that civilised drinking patterns would develop in the 18 to 19 age group and that strict enforcement would prevent under-age alcohol consumption had not been fulfilled.

Hospital admissions for heavily intoxicated 13 to 17-year-olds had risen, along with 18 to 19-year-olds. Traffic-crash data for both age groups for fatal and non-fatal accidents showed the contribution of alcohol had risen dramatically. The number of fatal crashes during high-alcohol hours had risen sharply.

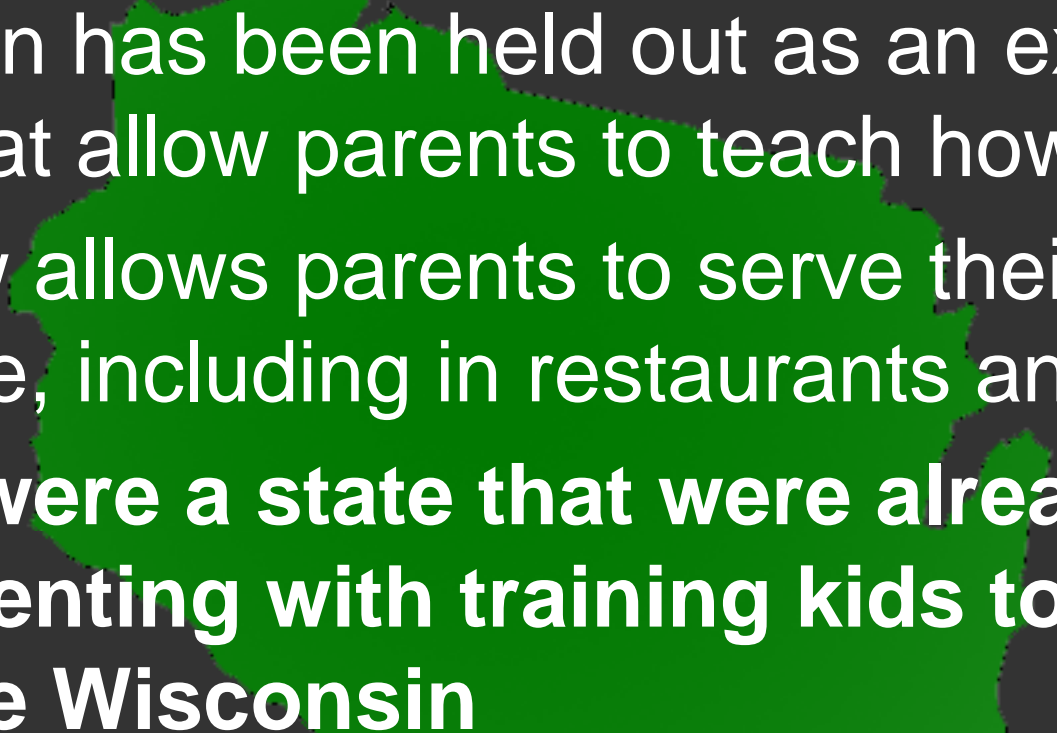
In all areas studied, from hospital admissions to sexually transmitted diseases, the lowering of the drinking age was associated with greater alcohol-related harm.”

And they aren't the only ones

- United Kingdom
 - City of London
 - The Institute for Public Policy Research has endorsed 21
 - As has P... nation's leading a
 - And some
 - And some
- Canada - College of Physicians and Surgeons of Manitoba
- Australia – Drug-Free Australia
- Scottish Government
- And more

"Certainly, in America where this [the 21 MDA] has been done, there has been a significant reduction in, for example, alcohol-related road deaths." – Professor Drummond

Training To Drink in the United States

- Wisconsin has been held out as an example of states that allow parents to teach how to drink
 - State law allows parents to serve their children anywhere, including in restaurants and bars
 - **If there were a state that were already experimenting with training kids to drink it would be Wisconsin**
- 

Training To Drink in the United States

“Wisconsin boasts permissive exceptions to the National Minimum Drinking Age Act, most notably the ability of those under the age of 21 to both enter licensed premises under multiple scenarios, and consume alcohol in a variety of venues if in the presence of a parent or guardian, or a legal-aged spouse. Wisconsin’s exceptions are well-defined, and likewise, widely supported and utilized.”

- John M. McCardell, Jr., President Emeritus,
Middlebury College

Training To Drink in the United States

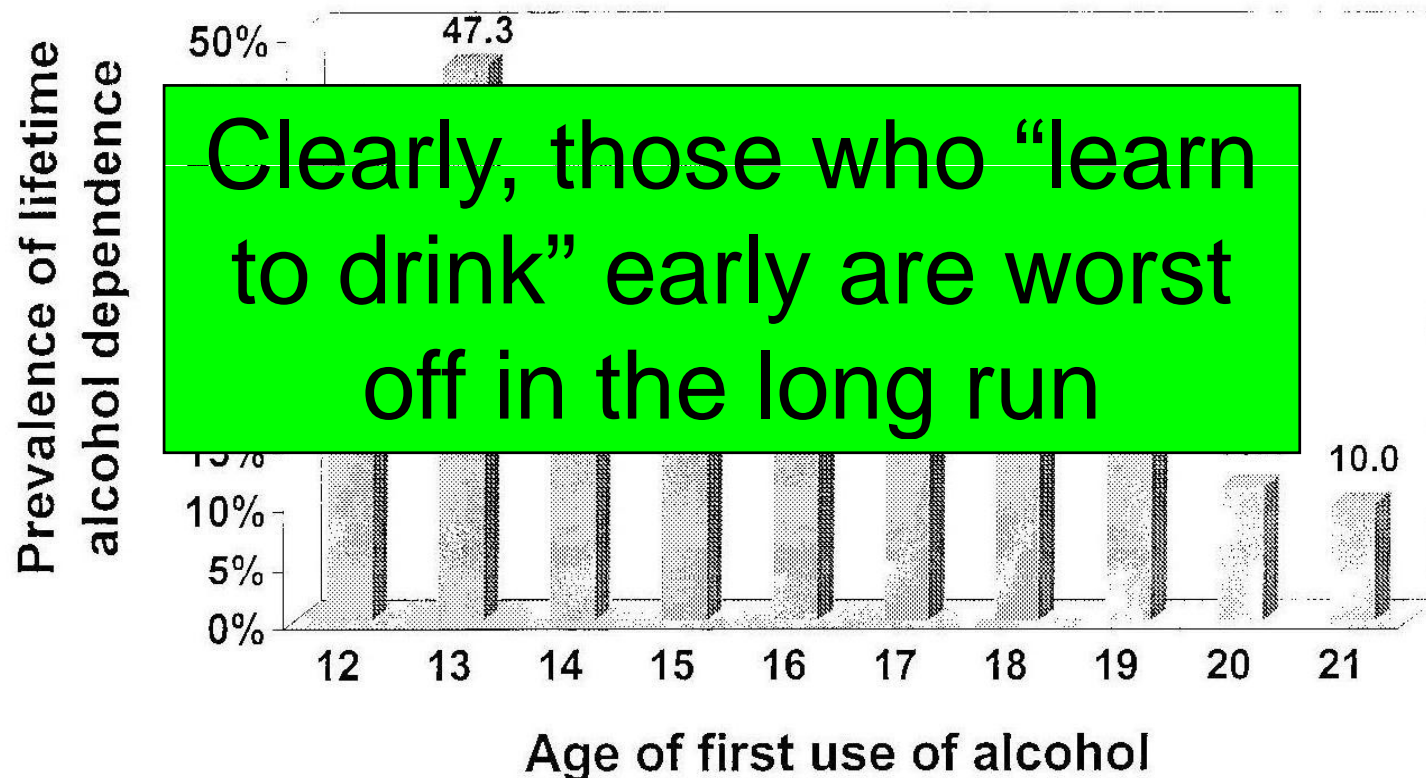
- University of Wisconsin Population Health Institute (2007)
 - Wisconsin is the worst in the country in:
 - Current drinking among high school students: 49%
 - Current underage drinking: 39%
 - Current drinking among adults: 68%
 - Binge drinking among adults: 22%
 - Chronic, heavy drinking among adults: 8%
 - And they are second worst in the country for underage binge drinking

#4:

21 MDA and Reduction of Drinking

- The 21 MDA did decrease both underage drinking and binge drinking
- When we had different age states, those under 21 in states with lower drinking ages
 - drank significantly more
 - were less likely to abstain from alcohol
 - were drunk more often than students in states with a drinking age of 21 (Maisto and Rachal, 1980)

Age at first alcohol use and the prevalence of lifetime dependence



#4:

21 MDA and Reduction of Drinking

- When the drinking age is 21
 - Those under 21 drink less
 - Those under 21 continue to drink less throughout their 20s (O'Malley and Wagenaar, 1991)
- Wagenaar and Toomey, 2002
 - Looked at all of the research from 1960 to 2000
 - Of the high-quality analyses of the minimum drinking age's impact on consumption, **11 of the 12 studies that found an effect found that the minimum drinking age reduces consumption**

#5:

Reduction of Other Alcohol Harms

- When the drinking age is 21, people affected by the drinking age are less likely to die due to alcohol-related injury
- We've already talked about the decline in traffic crashes
- Also, non-traffic alcohol-related fatalities among those aged 18-24 have dropped from 1800 per year in the early 80s to about a thousand now
- Non-traffic alcohol-related injuries and crashes tend to rise and fall at the same rate as traffic alcohol-related injuries and crashes
 - Smith, Branas, and Miller, 1999
 - Looked at over 300 medical examiner studies

More Evidence

- Several other studies have shown a decrease in other injuries
 - Decrease in homicide
 - Hingson, Meerigan, and Heeren, 1985
 - Jones, Pieper, and Robertson, 1992
 - Decrease in suicide
 - Links, 2000
 - Berckmayer and Hemenway, 1999
 - Decrease in other unintentional injury
 - Jones, Pieper, and Robertson, 1992

#6: Old Enough to Fight

- One of the strongest advocates for the 21 MDA was the Pentagon, which was losing a battalion of troops per year to drunk driving
- Current exception allowing commanders to authorize drinking by troops is extremely limited and holds commanders personally responsible for potential incidents
- Local commanding general just cancelled last remaining 50-mile exception in US Army

Renewed Commitment

- We agree with those advocating change that there is a problem with underage drinking
- However, 21 MDA is the solution, not the problem
- The 21 MDA has been able to save about 900 lives per year
- It's time to renew a commitment to 21, as the rest of the world follows
 - More enforcement
 - Better control of access
 - Greater information about the impacts of underage drinking (e.g., impacts on the brain)
 - And **not lowering the drinking age**
- All of the data show that lowering the drinking age would only make the problem worse

That which is right is
seldom easy, and what
is easy is seldom right.