



**U.S. ALCOHOL
POLICY ALLIANCE**

Turning evidence into action.

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Which Underage Drinking Laws Have Been Effective in Reducing Underage Drinking Drivers in Fatal Crashes?

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Key Facts: Young Drivers Aged 15-20 in 2020

- In 2020 there were 1,885 young drivers who died in traffic crashes, a **17-percent increase** from 1,616 in 2019
- Young drivers accounted for **8.5 percent** of all drivers involved in fatal crashes in 2020. However, young drivers were only **5.1 percent** of all licensed drivers in 2020
- Almost one-third (**29%**) of young drivers aged 15-20 killed in crashes in 2020 had been **drinking**.

Source: NHTSA, NCSA (2022, June)



What are some of the reasons for the high crash rates of young drivers?

The Research: Risk Factors

- Inexperience – Especially the first few months of licensure
- Late night driving (without supervision)
- The number of teen passengers
- ***The presence of alcohol (and other drugs) in young drivers***
- The low rate of seat belt usage
- Type of vehicle driven
- Distractions (especially cell phones)





Underage Drinking

Relative Risk* of Being Involved in a **Fatal Crash** by BAC

| <u>Driver Age</u> | <u>BAC</u> | | |
|-------------------|-------------------|-------------------|----------------|
| | <u>.05 - .079</u> | <u>.08 - .099</u> | <u>>.15</u> |
| 16-20 | 6.24 | 12.61 | 490.41 |
| 21-34 | 4.78 | 8.74 | 200.03 |
| 35+ | 4.03 | 6.89 | 111.94 |

*Risk relative to BAC=.00 for same age group

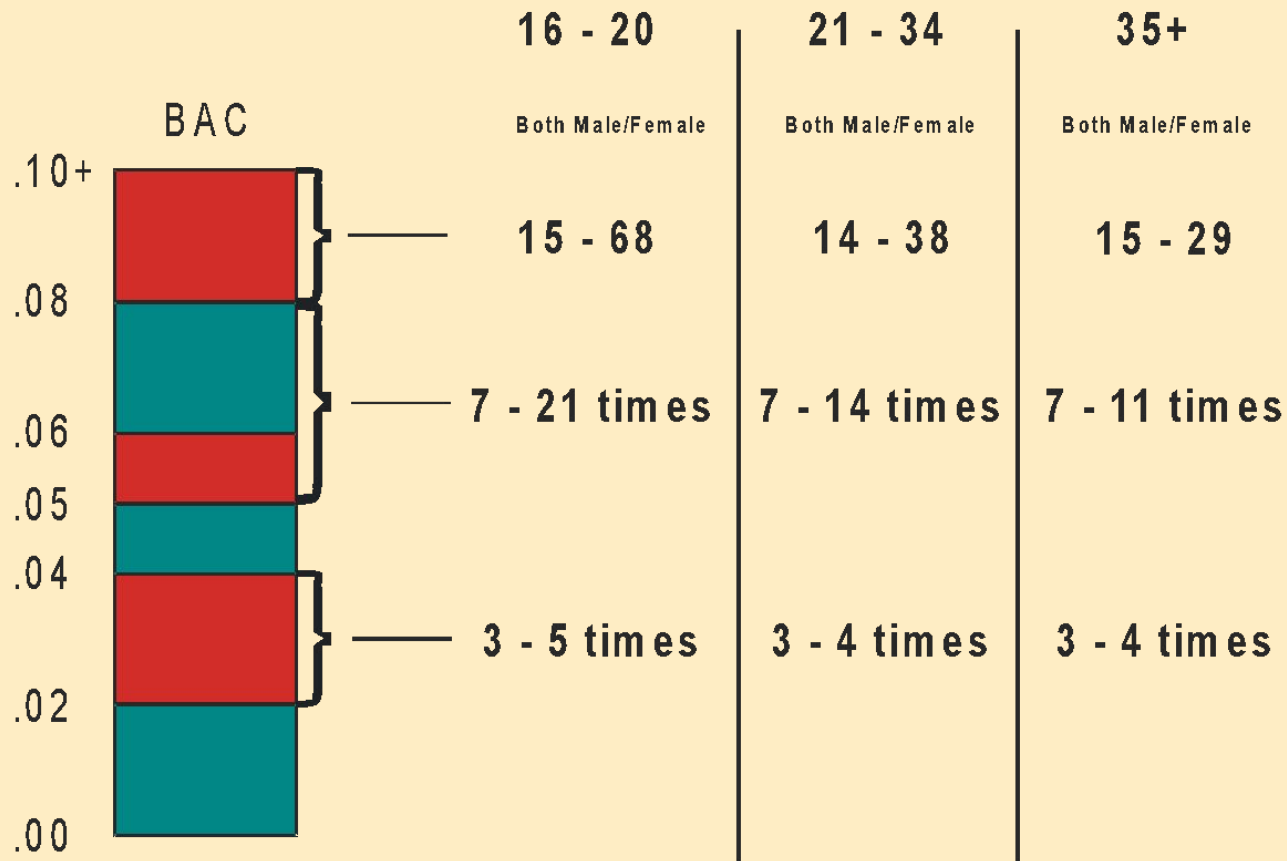
- Relative risks are the same for men and women at a given BAC. Relative risk for 16-20 year old women are now the same as 16-20 year old men at a given BAC (a change from 1996).

Source: Voas, Torres, Romano, Lacey, JSAD, (2012)

Relative Risk of Being Killed as a Driver in a Single Vehicle Crash

(Relative to BAC = .00)

RELATIVE RISK BY AGE



Source: Voas, Torres, Romano, Lacey (2012)

Minimum Legal Drinking Age Laws





Minimum Legal Drinking Ages Around the World

Germany – 16 (beer & wine); 18 (spirits)

Australia – 18

Canada – 18

France – 16

Italy – 16

Japan – 20

Sweden – 18

Switzerland – 14

Great Britain – 18

USA – 21

Venezuela – 18

Source: World Health Organization



Minimum Legal Drinking Ages Around the World

- USA – 21
- Fiji – 21
- Indonesia – 21
- Micronesia – 21
- Palau - 21

Source: World Health Organization

Minimum Legal Drinking Age 21 (MLDA-21)

History in the United States

- Minimum Legal Drinking Age (MLDA) Laws established in the States after the Repeal of Prohibition in 1933
(21st Amendment to the US Constitution)
- Most States set the MLDA at 21
(e.g., 11 States set and stayed at 21):
 - AR (1935); CA (1933); IN (1934); KY (1938);**
 - NV (1935); NM (1934); ND (1936); OR (1933);**
 - PA (1935); UT (1935); WA (1934)**



Minimum Legal Drinking Age 21 History in the United States

- Voting age lowered from 21 to 18 in 1971 (26th Amendment to the US Constitution)
- Many States began to lower the drinking age to 18 or 19 in the early 1970s
- Studies in the 1970s and 1980s showed significant **increases** in alcohol-related fatal traffic crashes involving youth aged 16-20 in States that **lowered** their drinking age

MLDA 21 Milestones

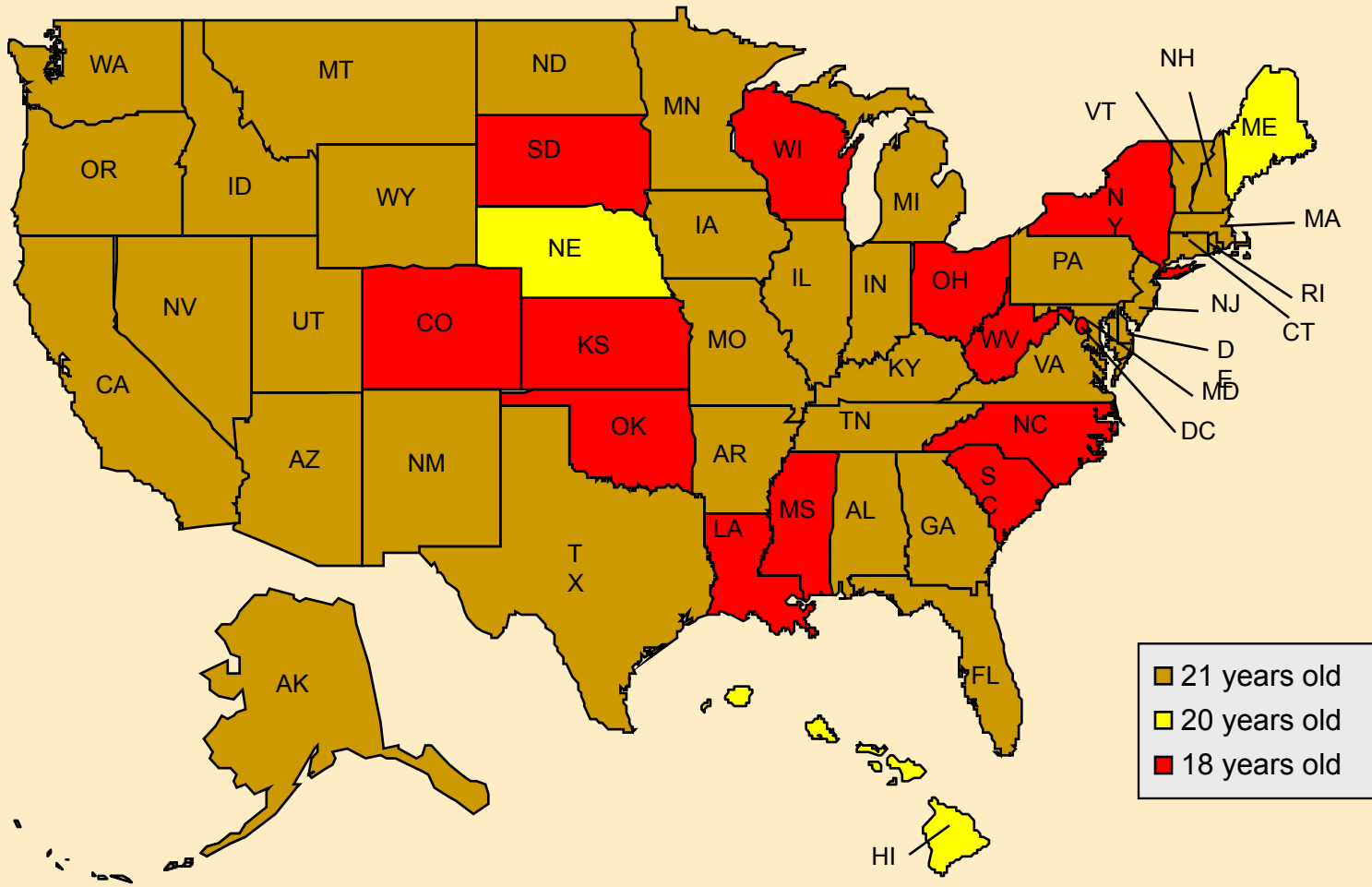
President Ronald Reagan signs federal 21 Minimum Drinking Age law in **1984**.



All 50 States plus DC adopt age 21 as minimum legal drinking age (*illegal to possess alcohol and illegal to purchase alcohol*) by **1988** or risk the withholding of a portion of Federal Highway Construction funds.

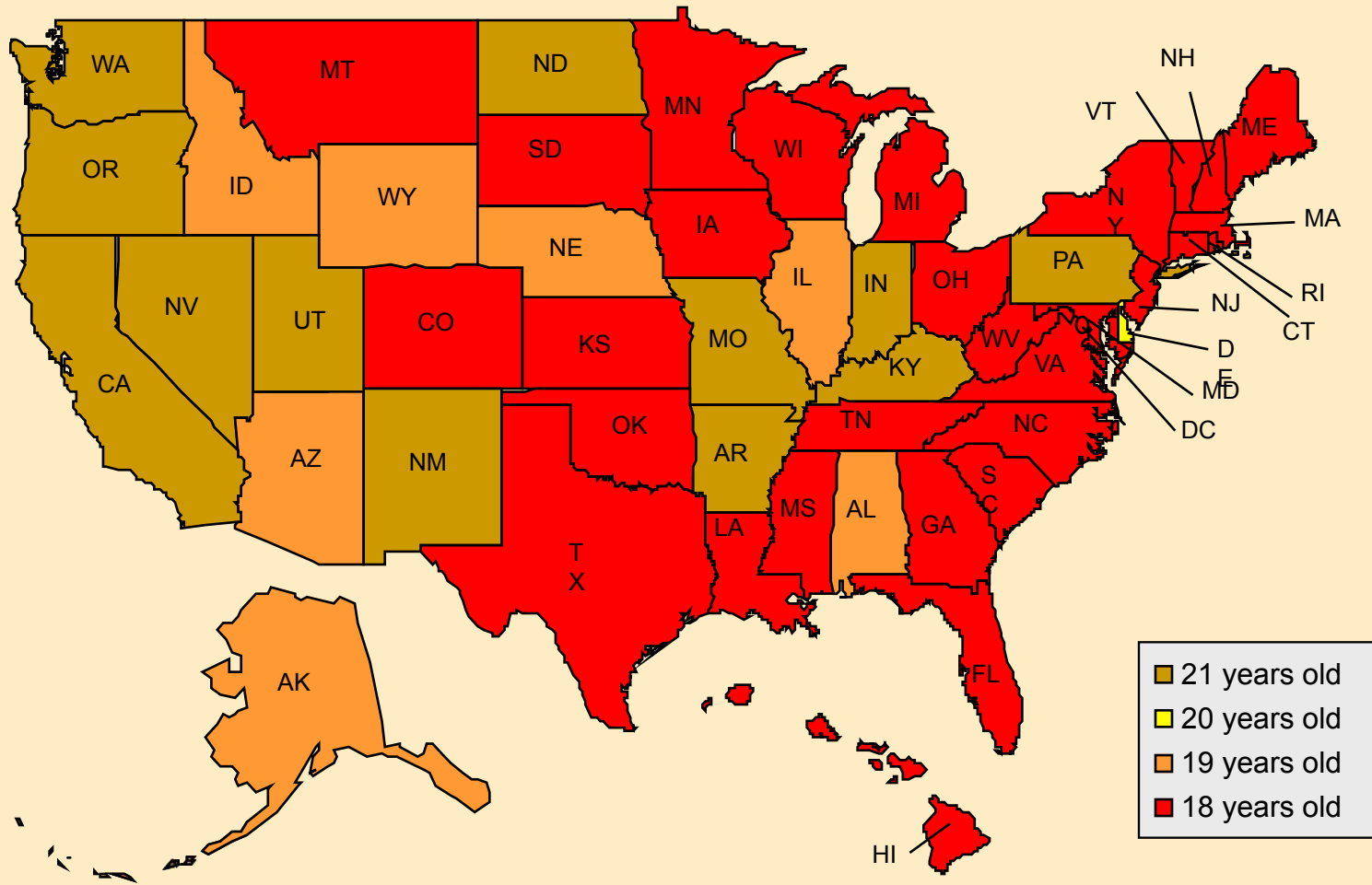
US Minimum Legal Drinking Ages as of December 31, 1969

35 states had 21 as the drinking age



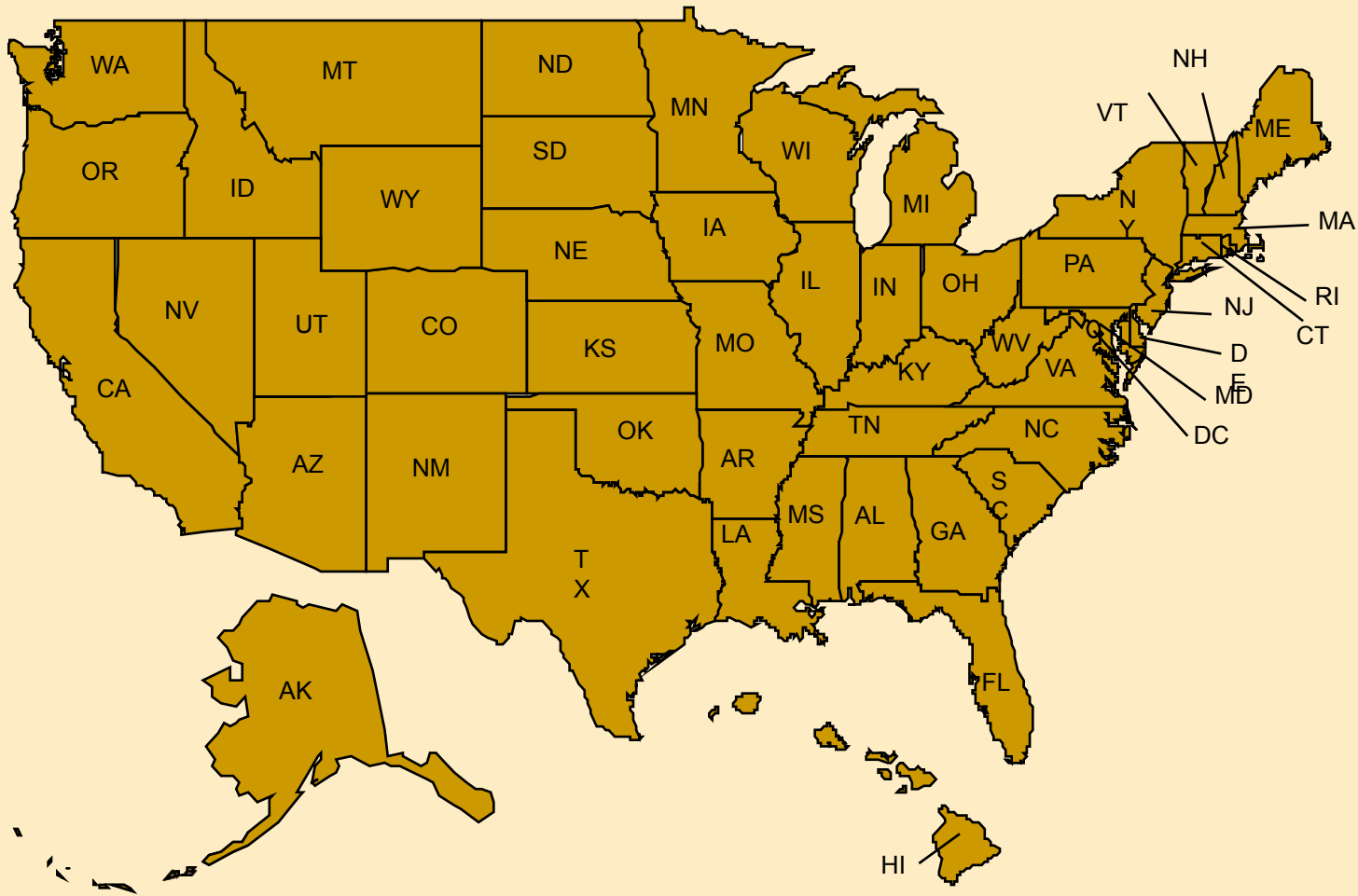
US Minimum Legal Drinking Ages as of December 31, 1975


Only 12 states had 21 as the drinking age



US Minimum Legal Drinking Ages as of July 1, 1988

All states had 21 as the drinking age





What Have Been the Effects of the Minimum Legal Drinking Age 21 in the United States?

Research

- Studies in the 1980s and 1990s show that ***raising*** the drinking age ***saves lives***
- Studies from the National Highway Traffic Safety Administration (NHTSA) show that MLDA 21 laws reduce 18- to 20-year-old driver involvements in fatal crashes by 13% (Arnold, 1985; Womble, 1989; Kindelberger, 2005)
- ***MLDA-21 laws*** are estimated to have saved ***31,959 lives since 1975*** in reductions in traffic fatalities



MLDA-21

Law

Components

20 Key Components of Underage Drinking Laws in the United States

MLDA 21 Law Components

States with Law

CORE LAWS:

■ Apply to Youth

- Possession 51
- Purchase/attempt to purchase 48

EXPANDED LAWS:

■ Apply to Youth

- Consumption 35
- Internal possession 9
- Use and lose driving privileges 40
- Use of fake ID illegal 51

■ Apply to Youth Driving

- Zero tolerance 51
- GDL with night restrictions 51

20 Key Components of Underage Drinking Laws in the United States

MLDA 21 Law Components

States with Law

■ Apply to Providers

- | | | |
|---|-----------|----|
| □ Furnishing/selling | 51 | |
| □ Age 21 for on-premises Server (all 3 beverage types) | | 13 |
| □ Age 21 for on-premises Bartender (all 3 beverage types) | | 24 |
| □ Age 21 for off-premises Seller | | 23 |
| □ Keg registration | 31 | |
| □ Beverage Service Training | 38 | |
| □ Retail Support Provisions for Fake ID | | 45 |
| □ Hosting underage drinking parties | | 28 |
| □ Dram Shop Liability | 45 | |
| □ Social Host Civil Liability | | 33 |

20 Key Components of Underage Drinking Laws in the United States

MLDA 21 Law Components

States with Law

- **Apply to Manufacturers of Fake ID**
 - Transfer/production of Fake ID illegal 24
- **Apply to State**
 - State control of alcohol
(at least 1 beverage) 11



20 Key Components of Underage Drinking Laws in the United States

- Utah has all 20 MLDA-21 Components
- Kentucky has only 9 out of the 20 laws
- Only 5 laws have been adopted by all 50 States and DC



5 MLDA-21 Laws Adopted by all States and DC in the United States

- Illegal to possess alcohol
- Illegal to use a fake ID to purchase alcohol
- Zero Tolerance (BAC>.02) for driving
- Graduated Driver Licensing System
- Illegal to furnish alcohol to persons under age 21



Research

We scored all 20 MLDA-21 Laws and showed why scoring was important:

Scoring the Strengths and Weaknesses of Underage Drinking Laws in the United States

By Fell, Thomas, Scherer, Fisher and Romano

World Medical & Health Policy Journal

March 2015



Current Research


We evaluated all 20 MLDA-21 laws:

**Assessing the Impact of 20 Underage Drinking
Laws**

By Fell, Scherer, Thomas and Voas
Journal of Studies on Alcohol & Drugs
March 2016, 249-260.



Methods



MLDA-21 Laws

We selected for evaluation:

- **All 20 Underage Drinking Laws**
 - Adoption dates in the states
 - Scored for their Strengths & Weaknesses
 - Using Structural Equation Modeling (SEM)



Data Sources

Legal Research

- **Alcohol Policy Information System (APIS)** developed and maintained by the National Institute on Alcohol Abuse and Alcoholism (NIAAA); Westlaw; HeinOnline

Crash Analyses

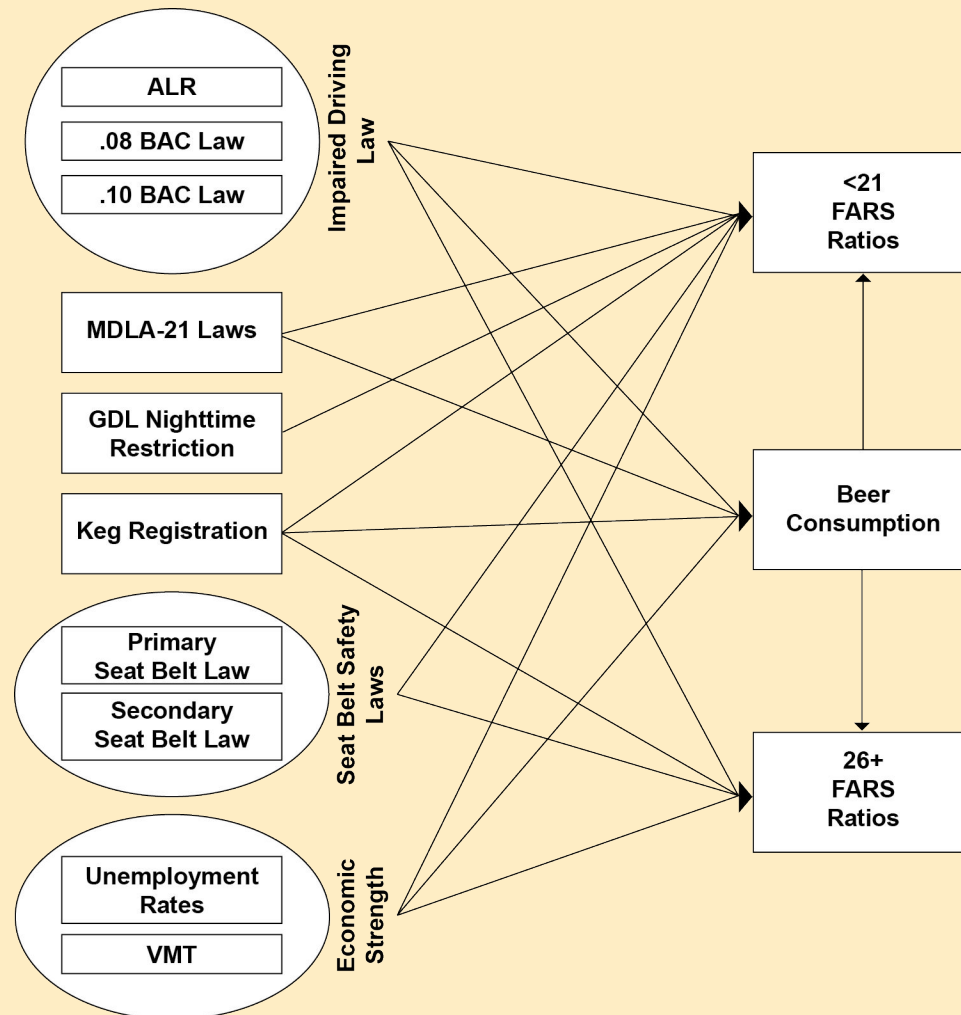
- **Fatality Analysis Reporting System (FARS)** developed and maintained by the National Highway Traffic Safety Administration (NHTSA) for the years **1982-2012**

Model

The model we used is composed of:

1. Twenty MLDA-21 laws;
2. Three drinking-and-driving laws (0.08 legal limit, 0.10 legal limit, and ALR);
3. Two driving-safety laws (use of sobriety checkpoints and seatbelt use laws);
4. Two variables determining economic strength (employment rate and VMT by state and year);
5. Per capita beer consumption by state and year;
6. Ratio of underage 21 drinking drivers to underage 21 non-drinking drivers in fatal crashes; and
7. Ratio of drinking drivers to non-drinking drivers in fatal crashes among drivers aged 26 years and older as a comparison.

Structural Equation Modeling (SEM)





Strengths of the Laws

Scoring

Fake Identification – Minor

Scoring Criteria

Weight Point Values

Fake Identification law

+1.0 point for presence of the law

License sanction procedure

+2.0 points for administrative sanctions

OR

+2.0 points for administrative and judicial sanctions

OR

+1.0 points for judicial sanctions only


Scoring

Fake Identification – Retailer Support

Scoring Criteria

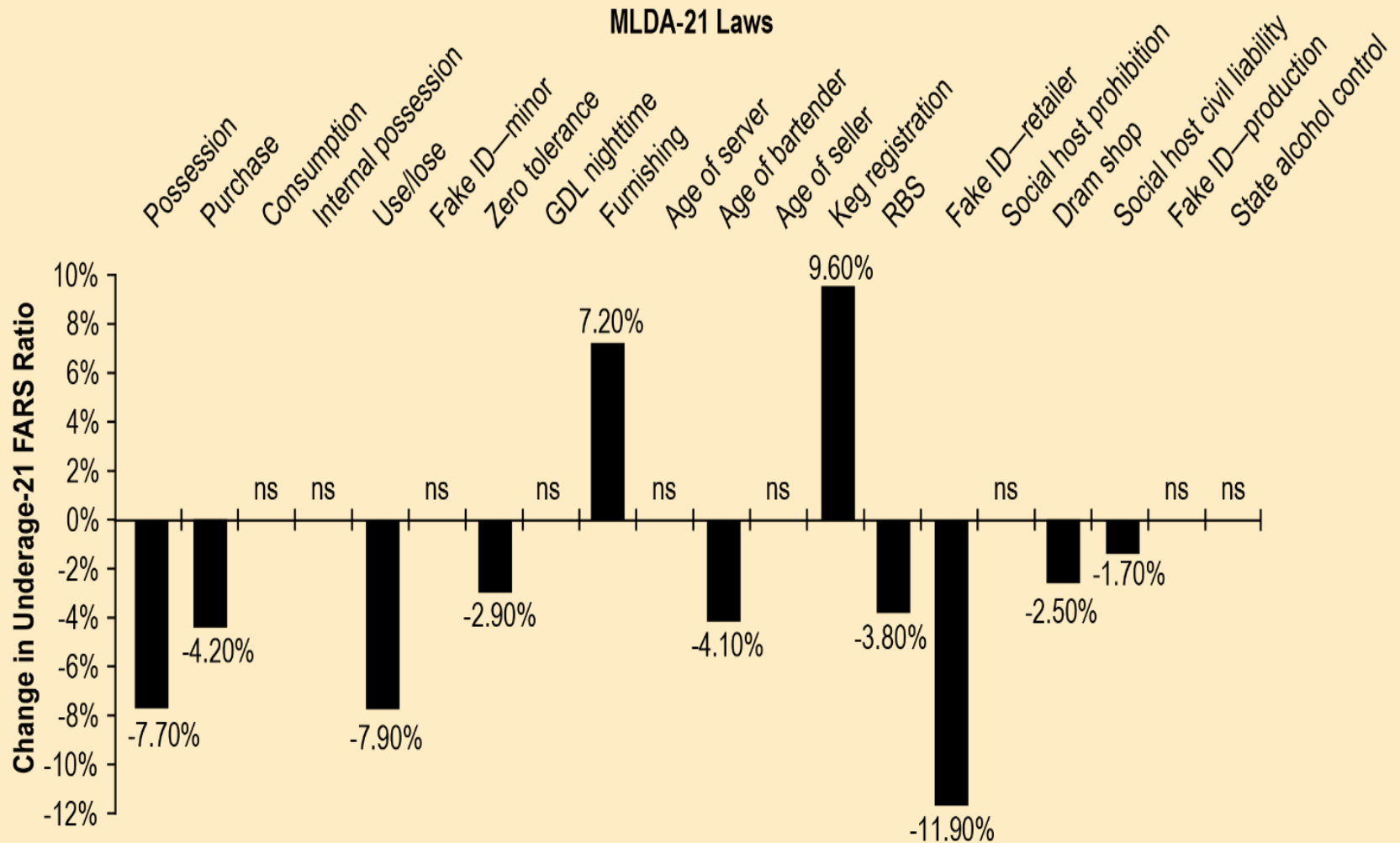
Weight Point Values

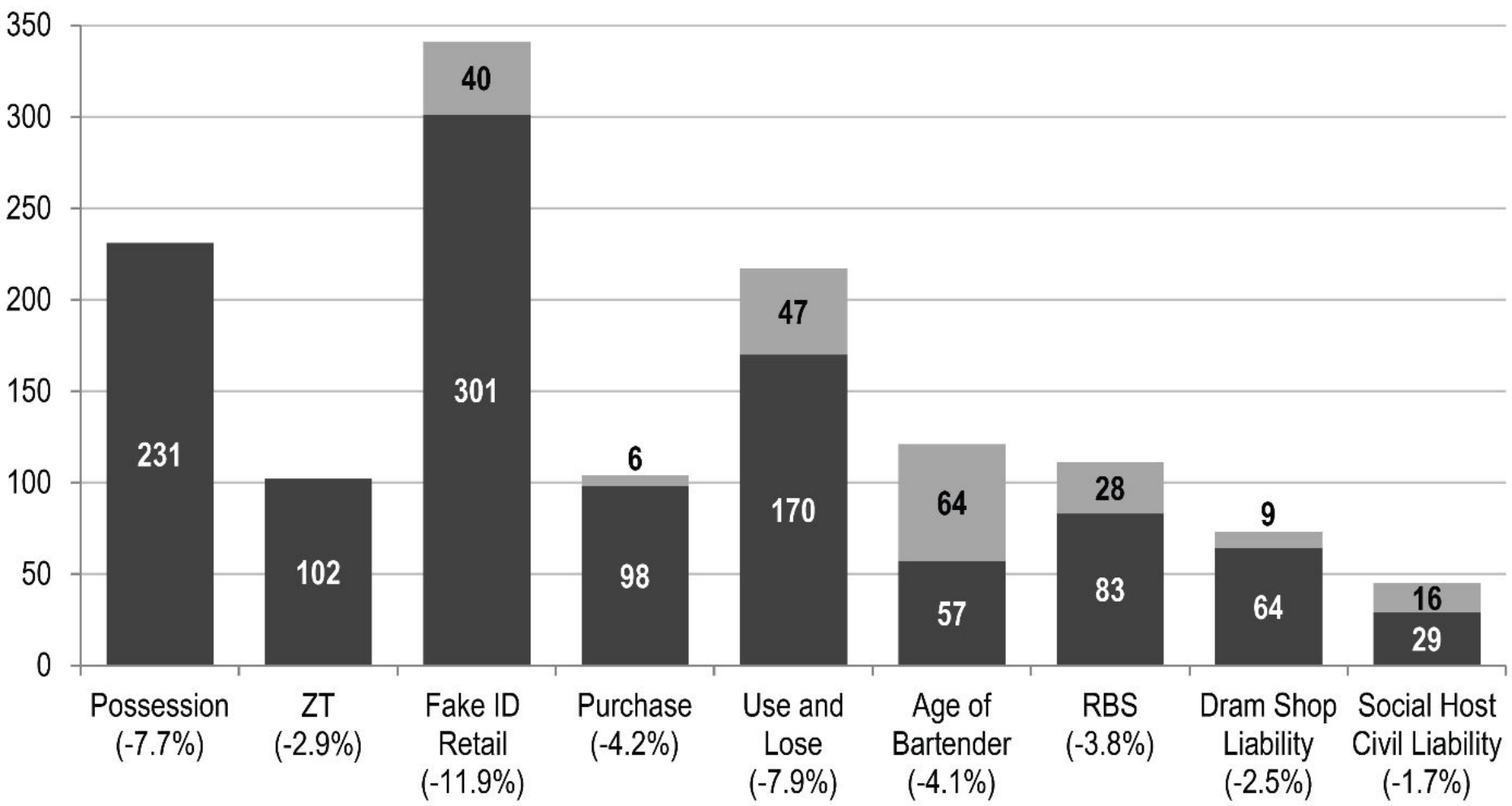
| | |
|--|---|
| Incentives for retailers to use scanners | +1.0 point if yes |
| Use of distinctive licenses | +2.0 points if yes |
| Seizure of suspicious ID by retailer permitted | +1.0 point if yes |
| Right to sue minor | +1.0 point if yes |
| Affirmative defense | -1.0 point for general affirmative defense 0.0 points for specific affirmative defense or none |



Results

Effects of Twenty MLDA-21 laws on the ratio of <age 21 drinking drivers to <age 21 nondrinking drivers involved in fatal crashes (Source: FARS 1982-2012)





MLDA-21 Laws

■ Current Lives Saved (1,135) ■ Potential Lives Saved (210)

Conclusions

- The **fake ID retailer support laws (-11.9%)** support ID checking by increasing the motivation of outlet managers to conform to MLDA-21 laws and also by enhancing their ability to detect underage patrons.
- If retailers have the use of **ID scanners** to spot fake IDs, have the right to **seize suspicious IDs**, can sue a patron for using a fake ID, and their state has **distinctive licenses** for those under 21 (e.g., portrait rather than landscape), they would be much less likely to sell alcohol to underage youth.

Conclusions

- Based on this study, the **nine MLDA-21 laws** are currently **saving** an estimated **1,135 lives each year** in the states that have these laws. However, if all states adopted all nine MLDA-21 laws, an **additional 210 lives** could be saved every year across the United States



States with All Nine Effective MLDA-21 Laws

[Only 5 States have all 9 laws]

- California
- Colorado
- New Mexico
- Utah
- Wyoming

Limitations


- “No Effect” for some of these laws on underage *drinking and driving in fatal crashes* does not necessarily mean these laws are having no effect.

MLDA-21 Laws could have effects on:

- Underage alcohol consumption
- Underage binge drinking
- Underage drinking and driving injury crashes
- Underage drinking related violence
- Underage drinking related suicides

Acknowledgements

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QUESTIONS?



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