

# ALCOHOL TAXES AND PUBLIC HEALTH

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# DISCLAIMER

- My comments today are my own views and do not represent the official position of the Bloomberg School or Johns Hopkins University.

# Excessive Drinking Has a Huge Public Health Impact in the United States

- ❑ **80,000 deaths every year**
- ❑ **2.3 million Years of Potential Life Lost every year**
- ❑ **3<sup>rd</sup> leading preventable cause of death**
- ❑ **Cost**
  - ▣ \$223.5 billion in economic costs (2006) or ~\$1.90/drink
  - ▣ \$94.2 billion (42%) paid by government or ~\$0.80/drink
- ❑ **Utah:**
  - ▣ 419 deaths per year
  - ▣ 32 deaths of persons under age 21
  - ▣ \$1.47 billion per year (\$2.74 per drink)

# Binge Drinking Is the Main Problem

## □ Accounts for most health and economic costs

- $> 1/2$  of the deaths due to excessive drinking
- $2/3$  of the Years of Potential Life Lost (YPLL)
- $3/4$  of the economic costs

## □ Definition of binge drinking

- $\geq 4$  drinks per occasion for women and  $\geq 5$  for men
- Most common pattern of excessive drinking in the United States
  - $> 90\%$  of excessive drinkers binge drink

# Binge Drinking\* Prevalence Has Not Declined, but the Number of Episodes Has Increased

Measure	1993	2001	2009
Prevalence	14.2%	14.3%	15.2%
Total episodes	1.2 Billion	1.5 Billion	1.7 Billion
Episodes per person	6.3	7.4	7.1

\*Defined as  $\geq 5$  drinks/occasion for men,  $\geq 5$  drinks/occasion for women from 1993-2005, and  $\geq 4$  drinks/occasion for women from 2006-2007

# Health Effects of Binge Drinking



Binge drinking  
can lead to

**Motor Vehicle Crashes**

**Violence Against Others**

**Spread of HIV and Sexually-Transmitted  
Diseases (STDs)**

**Unplanned Pregnancy**

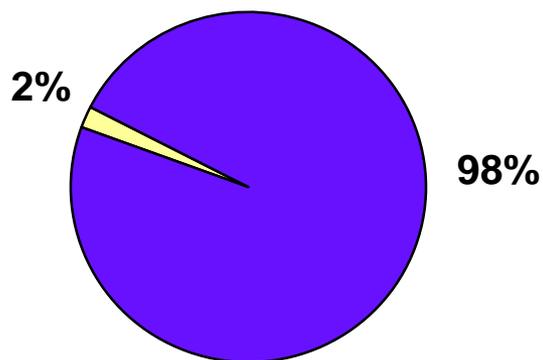
**Fetal Alcohol Spectrum Disorders and  
Sudden Infant Death Syndrome (SIDS)**

**Alcohol Dependence**

# Binge drinkers are not “alcoholics”

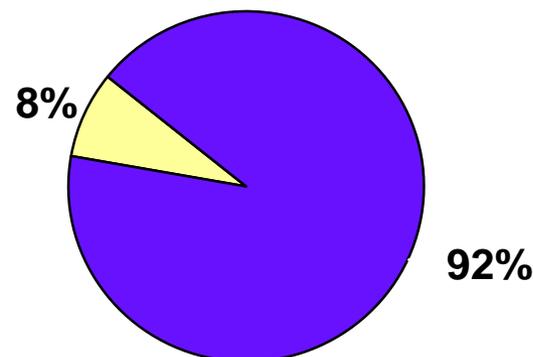
## Prevalence of Past-Year Alcohol Dependence, NM BRFSS, 2002

### All Respondents



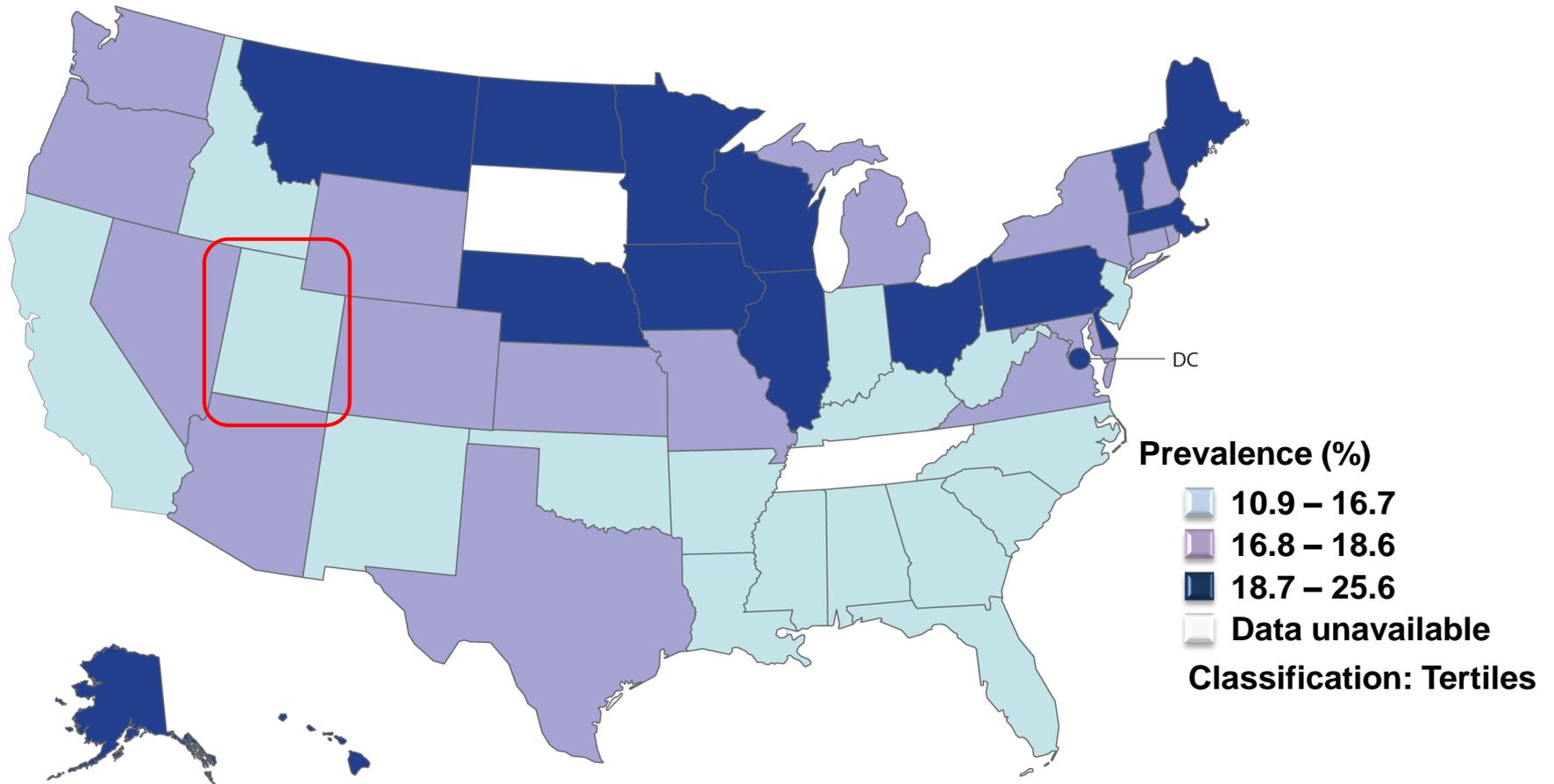
■ Dependent  
■ Non-Dependent

### Binge Drinkers

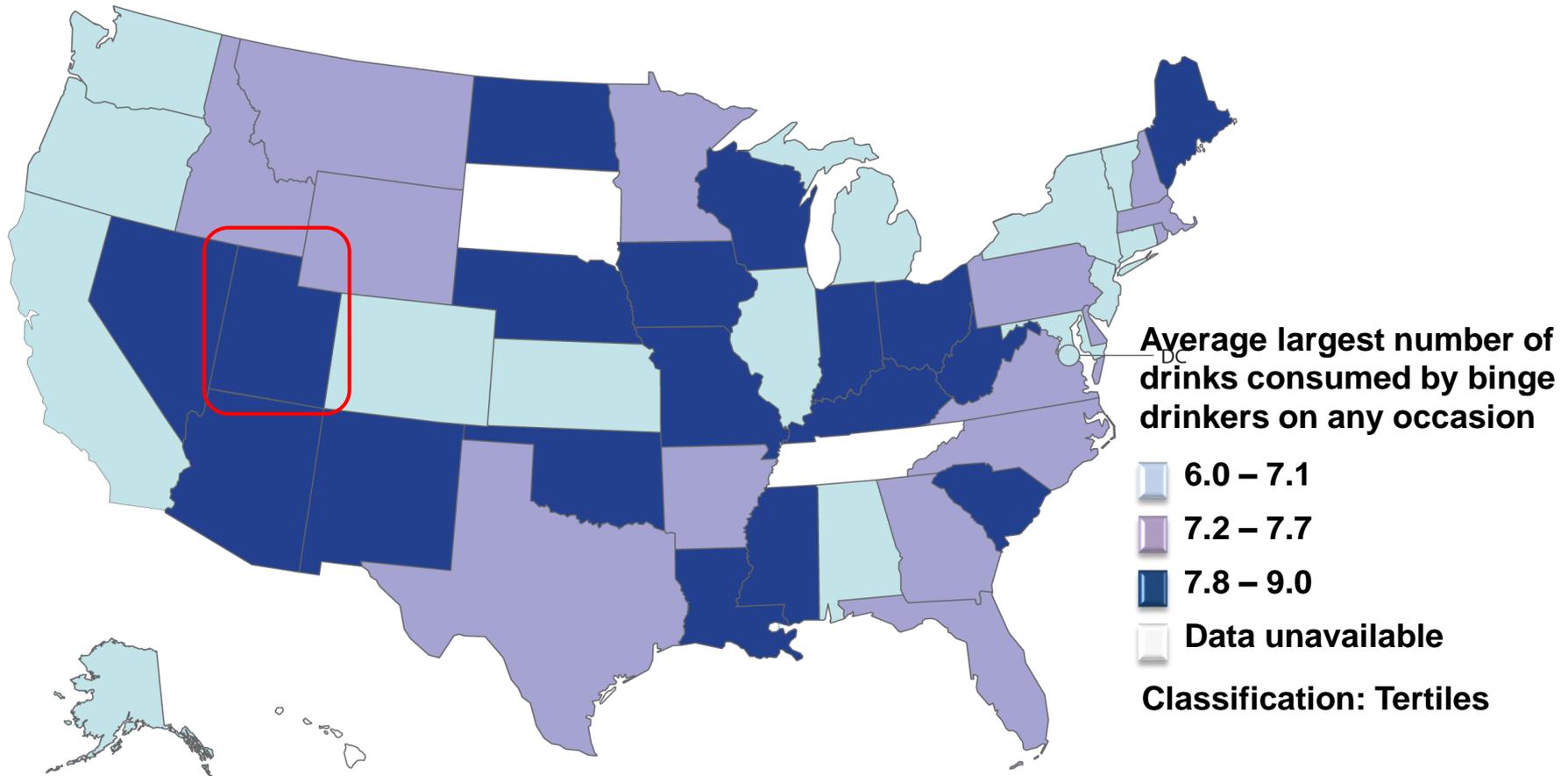


■ Dependent  
■ Non-Dependent

# Prevalence of Binge Drinking Varies by State



# Intensity of Binge Drinking



# Alcohol taxes

- “...among the most cost-effective ways for a government to reduce alcohol-related harm.”  
(Babor et al. 2010)
- “...increasing the unit price of alcohol by raising taxes based on strong evidence of effectiveness for reducing excessive alcohol consumption and related harms. Public health effects are expected to be proportional to the size of the tax increase.”  
(Community Guide to Preventive Services, 2010)

# Pricing and Taxation

Evidence suggests that:

- People increase their drinking when prices are lowered, and decrease their consumption when prices rise.
- Adolescents and problem drinkers are no exception to this rule.
- Increased alcoholic beverage taxes and prices are related to reductions in alcohol-related problems.
- The most important downside to raising alcohol taxes is smuggling and illegal in-country alcohol production, so they will only work if the illegal/informal market is under control.

# Price and taxation

- Alcohol taxes reduce alcohol consumption
  - ▣ Review of 112 studies containing 1,003 estimates of effects of price on alcohol consumption and problems
  - ▣ Consumption declines for general population, as well as young people and heavy drinkers (Wagenaar et al. 2009)
  
- Alcohol taxes save lives
  - ▣ A 10% increase in the price of alcohol leads to a 2.2% decrease in alcohol-related disease (not injury) deaths (Maldonado-Molina and Wagenaar, 2010)

# Health effects of alcohol taxes: specific studies

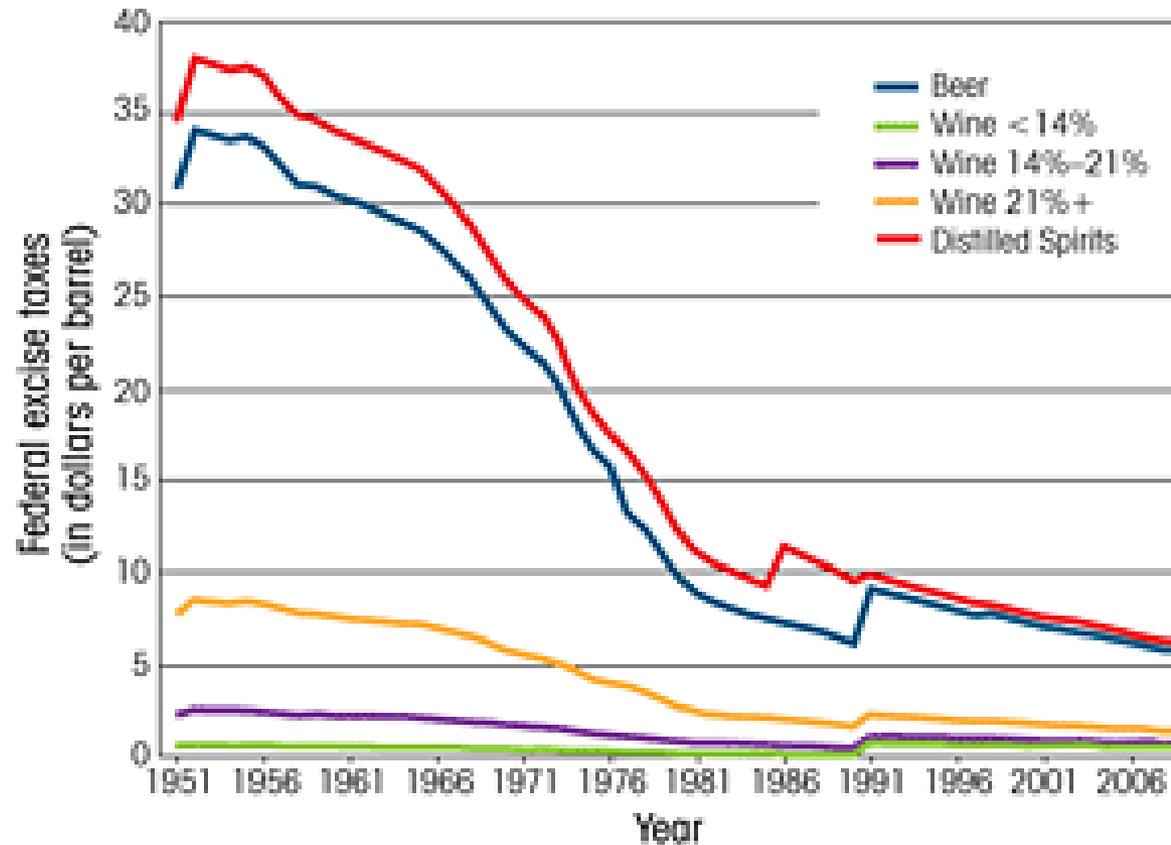
- Reduce:
  - Liver cirrhosis
  - Delirium tremens
  - Male suicide
  - Criminality
  - Hospitalizations
  - Alcohol-related disease mortality
  - Workplace injuries
  - STDs
  - IPV
  - Rape
  - Robbery
  - Severe violence towards children
- No impact on possible health benefits among moderate drinkers

# Public health goals: alcohol taxation

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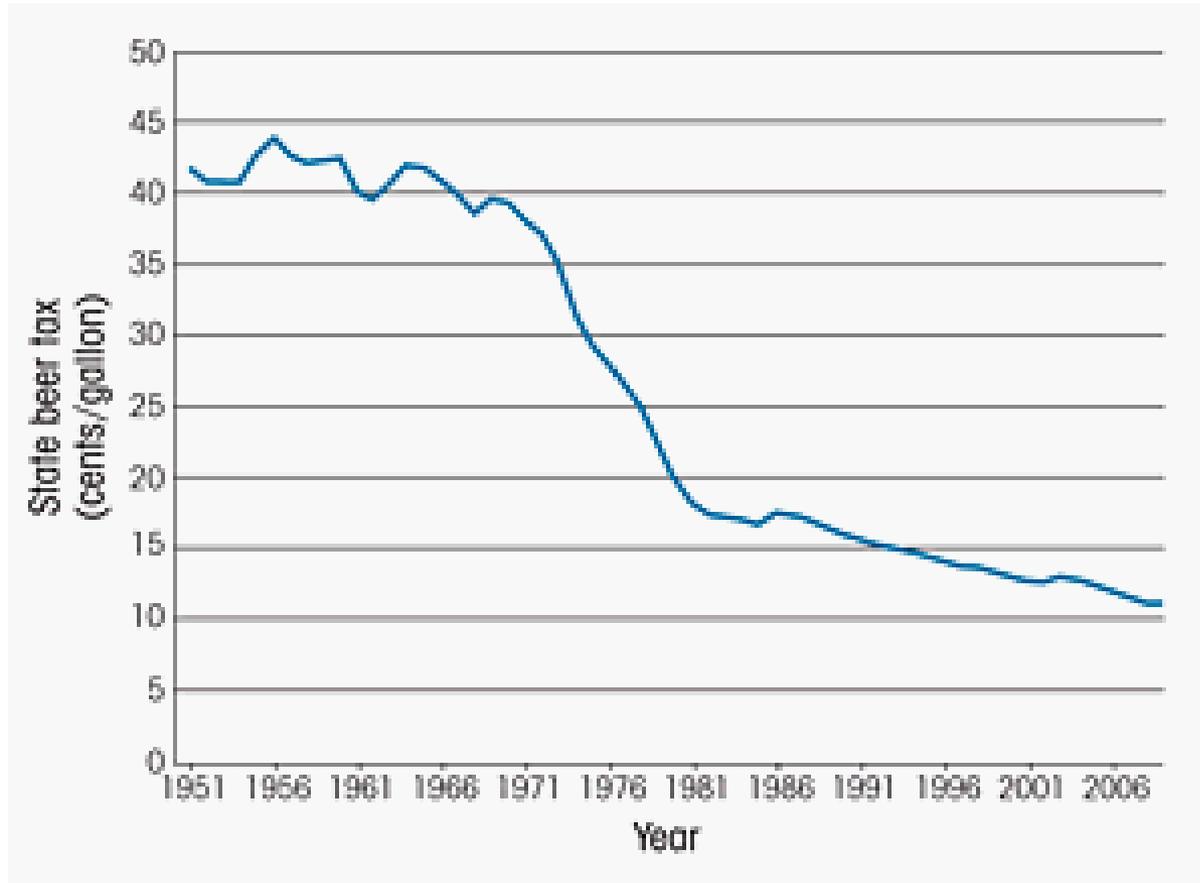
- Equalize based on alcohol content
- Index for inflation
- Set minimum price

# Alcohol Excise Taxes in the U.S.



Source: Xu and Chaloupka 2011

# Average State Beer Excise Tax Rates Per Gallon of Beer, 1951–2009



# Federal tax rates and inflation

	<b>1951 rate</b>	<b>Current rate (1991)</b>	<b>Adjusted for inflation (since 1951)</b>
Beer	\$9 / barrel	\$18 / barrel	\$76.23
Spirits	\$10.50 / proof gallon	\$12.50 / proof gallon	\$88.94
Wine	\$.17 / gallon	\$1.07 / gallon	\$1.44

# Impact of Alcoholic Beverage Tax Increases on Total Jobs Spending as General Revenue Spent

		5 ¢	10 ¢	25 ¢	5%
AR	Gross Impact	-312	-585	-1232	-187
	Net Impact	762	1459	3262	447
FL	Gross Impact	-3113	-5872	-12541	-2093
	Net Impact	4157	7979	17911	2704
MA	Gross Impact	-961	-1809	-3849	-630
	Net Impact	881	1691	3803	553
NM	Gross Impact	-315	-593	-1260	-200
	Net Impact	593	1136	2547	366
WI	Gross Impact	-1023	-1919	-4045	-619
	Net Impact	1072	2054	4607	628

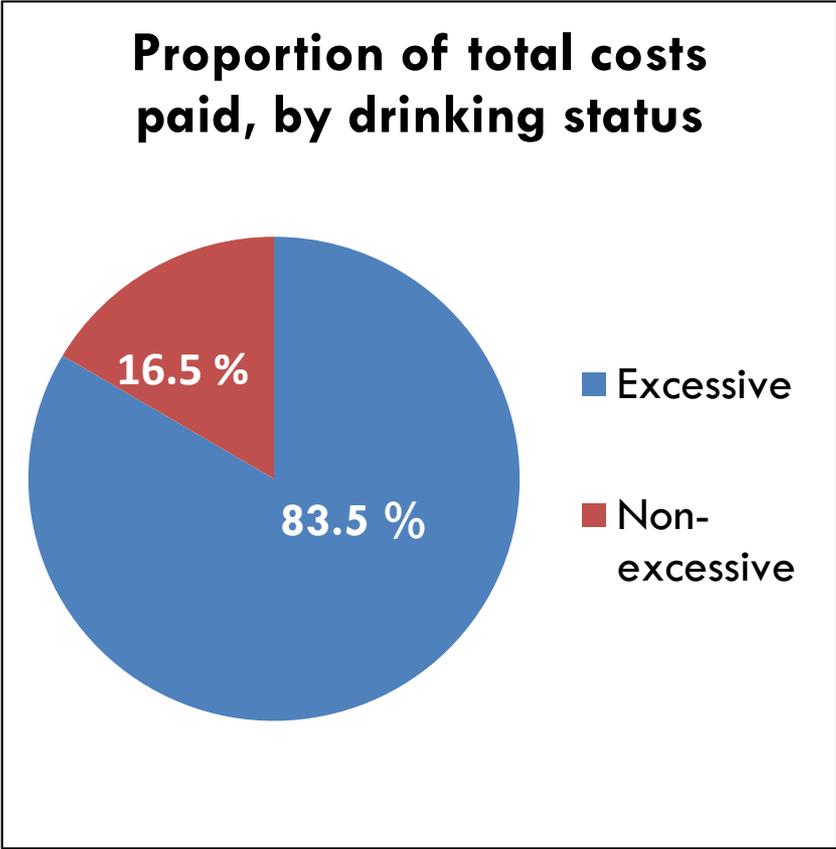
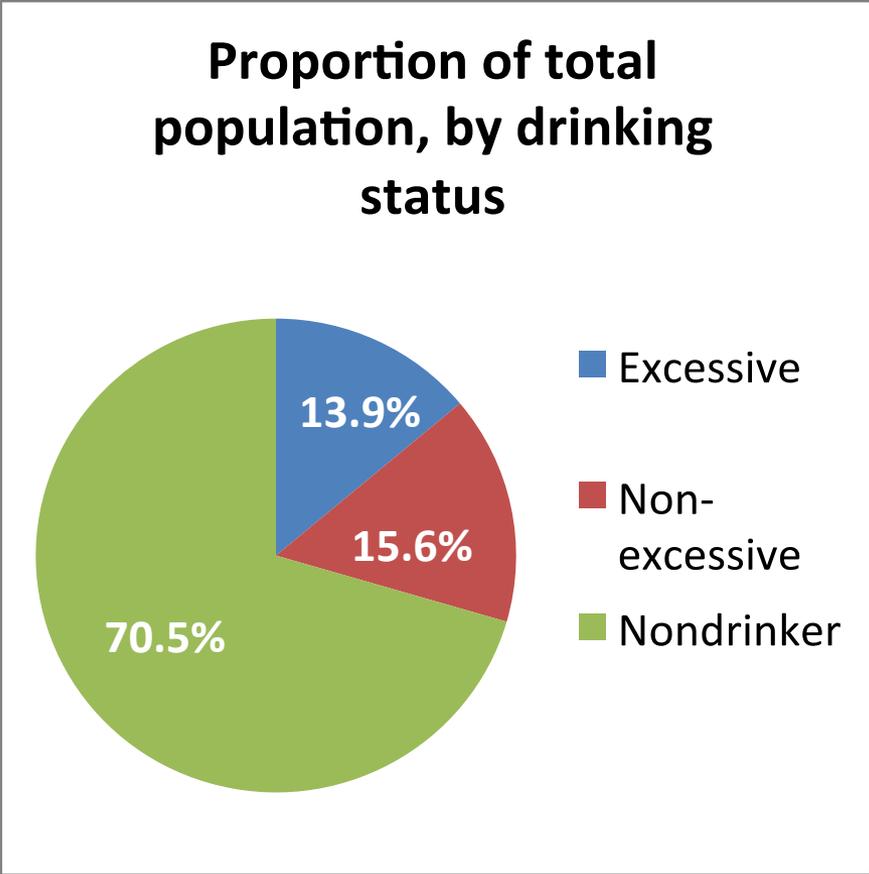
Source: SHECAP

# Employment Impact of Alcohol Tax Increases in Utah

Tax increase	Revenue to the General Fund	Revenue to Health Care
+.05 / drink	728	176
+.10 / drink	1,393	338
+.25 / drink	3,107	764
+5% sales tax	437	108

Utah has one of the smallest percentages of employment in the alcohol industry.

# Proportion of Population and Total Costs Paid, by Drinking Status, \$.05/drink in Utah



Source: SHECAP

< 25k 25k - 50k 50k - 75k > 75k  
2.41% 3.58% 3.04% 5.8%

# Are alcohol taxes regressive?

Not for the non-excessive drinkers...the additional cost per capita per year of a \$.05 per drink alcohol tax increase for different income groups in Utah:

Income Level	< \$25K	\$25K - \$50K	\$50K - \$75K	> \$75K
Average Annual Per Capita Net Costs Among Non-Excessive Drinkers	\$1.77	\$2.28	\$2.31	\$2.62

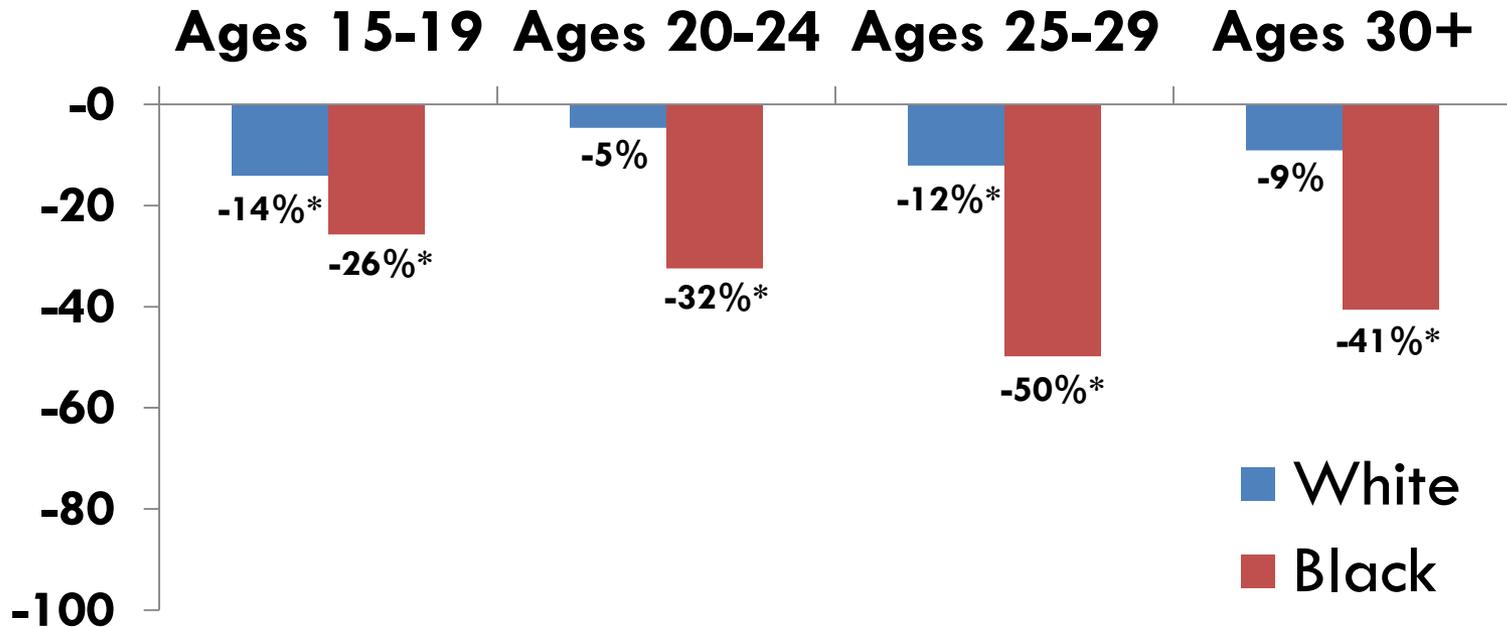
# Recent experiences

- Massachusetts
  - ▣ Alcohol added to states sales tax of 6.25% in July 2009
  - ▣ Tax repealed at the ballot in November 2010
- Illinois
  - ▣ Gov. Patrick Quinn increased tax in 2009 as part of package to fund infrastructure improvements
    - Beer up 25%, wine up 90%, spirits up 90%
- Maryland
  - ▣ Passed a 3% special sales tax on alcohol in 2011 – first increase since 1972

# Illinois: Gonorrhea Rates

## Net Effect Following Alcohol Tax Increase

- Beer/Cider – from 18.5¢ to 23.1¢ per gallon
- Wine – from 73¢ to \$1.39 per gallon
- Liquor – from \$4.50 to \$8.55 per gallon



# SUMMARY

- A large scientific literature has concluded that alcohol tax increases reduce alcohol consumption and related problems.
- Young people and heavy drinkers reduce their consumption along with the rest of the population.
- Alcohol-related problems decline as a result.
- Government revenues benefit as well, as states are able to bring in more money but reduce consumption at the same time.
- The value of alcohol taxes has eroded substantially over time.
- Revenues from alcohol taxes do not come close to matching what alcohol costs the states in terms of health care, property damage, criminal justice system costs, productivity losses, and so on.

THANK YOU VERY MUCH!

QUESTIONS?