The Economics of Alcohol and Cancer/Chronic Disease

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World Cancer Congress

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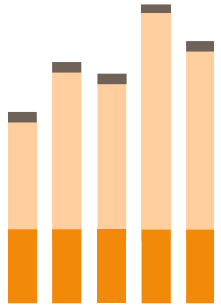
Overview

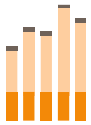
- Economic Costs of Excessive Drinking
- Alcohol Control Policies
- Impact of Alcohol Taxes and Prices
- Alcohol Taxation Globally
- Economic Myths & Facts



Economic Costs of Excessive Drinking

Categories of Costs

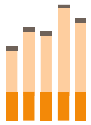
- Direct costs: reduction in existing resources
  - Direct health care costs
  - Direct non–health care costs
    - Include law enforcement costs, property damage and other costs
- Indirect or productivity costs: reduction in potential resources
  - Lost productivity due to morbidity and premature mortality



Source: Ross, 2007

Categories of Costs

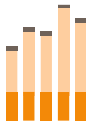
- External costs
  - costs that drinkers impose on others (e.g., costs to non-drinking victims of traffic crashes, violence)
- Internal costs
  - costs paid for by drinkers incurred as a result of their excessive consumption (e.g., out of pocket costs for health care to treat diseases caused by drinking)



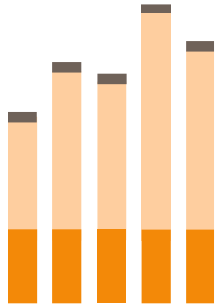
Source: Adapted from Ross, 2007

Estimates of Economic Costs

- Rehm and colleagues (2009) review:
  - Total Economic Costs:
    - Equivalent to 2.5% of GDP in High-Income Countries
    - Equivalent to 2.1% of GDP in Middle-Income Countries
      - Limited evidence for MICs (Thailand and South Korea)
    - Health care costs account for relatively small share (12.8% in HICs, 5.8% in MICs)
    - Other direct costs significant (28.3% in HICs, 15.6% in MICs)
    - Indirect costs account for largest share (49% in HICs, 79% in MICs)
    - Likely underestimate of total costs



Source: Rehm, et al., 2009



Alcohol Control Policies

ELSEVIER

American Journal of Preventive Medicine

Volume 45, Issue 1, July 2013, Pages 19-28

Research Article

Efficacy and the Strength of Evidence of U.S. Alcohol Control Policies

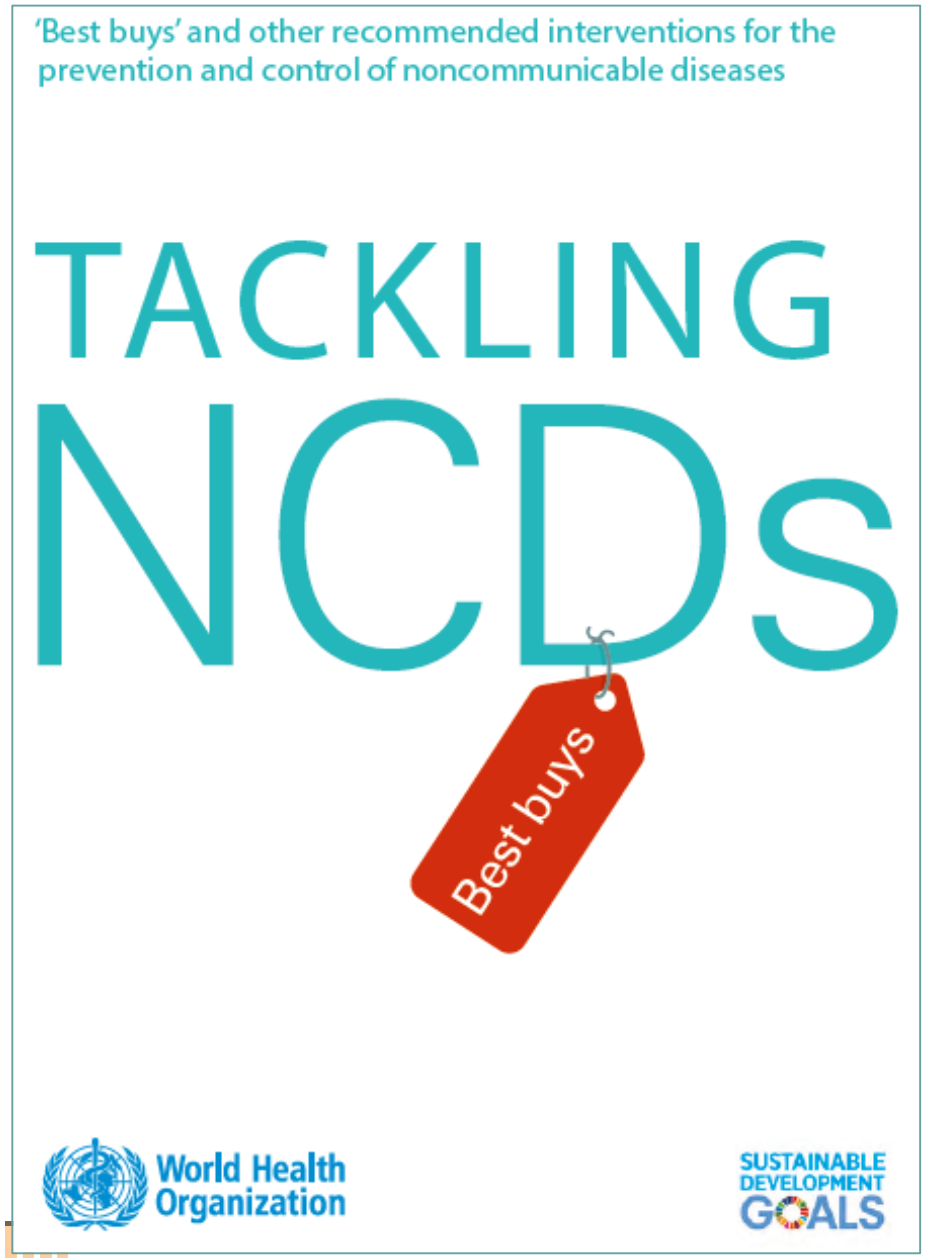
Toben F. Nelson ScD [a], Ziming Xuan ScD [b], Thomas F. Babor PhD [d], Robert D. Brewer MD, MSPH [e], Frank J. Chaloupka PhD [f], Paul J. Gruenewald PhD [g], Harold Holder PhD [g], Michael Klitzner PhD [i], James F. Mosher JD [h], Rebecca L. Ramirez MPH [j], Robert Reynolds MA [j], Traci L. Toomey PhD [a], Victoria Churchill [b], Timothy S Naimi MD, MPH [b, c]

- Evaluated 47 different alcohol control policies across four domains:
  - Overall and youth binge drinking
  - Overall and youth drinking and driving

Table 2. Ratings of alcohol control policy efficacy within four policy domains, M (SD)

	General population		Youth population	
Policy type	Binge drinking	Alcohol-impaired driving	Binge drinking	Alcohol-impaired driving
All	2.5 (0.9)	2.5 (0.9)	2.7 (0.7)	2.8 (0.8)
Pricing	4.0 (0.5)	3.8 (0.6)	3.8 (0.7)	3.7 (1.0)
Physical availability	2.6 (0.5)	2.5 (0.5)	2.9 (0.6)	2.8 (0.6)
Drinking and driving	2.1 (0.5)	2.8 (0.5)	2.4 (0.7)	3.1 (0.9)
Promotion	1.8 (0.3)	1.6 (0.3)	1.9 (0.5)	1.7 (0.4)

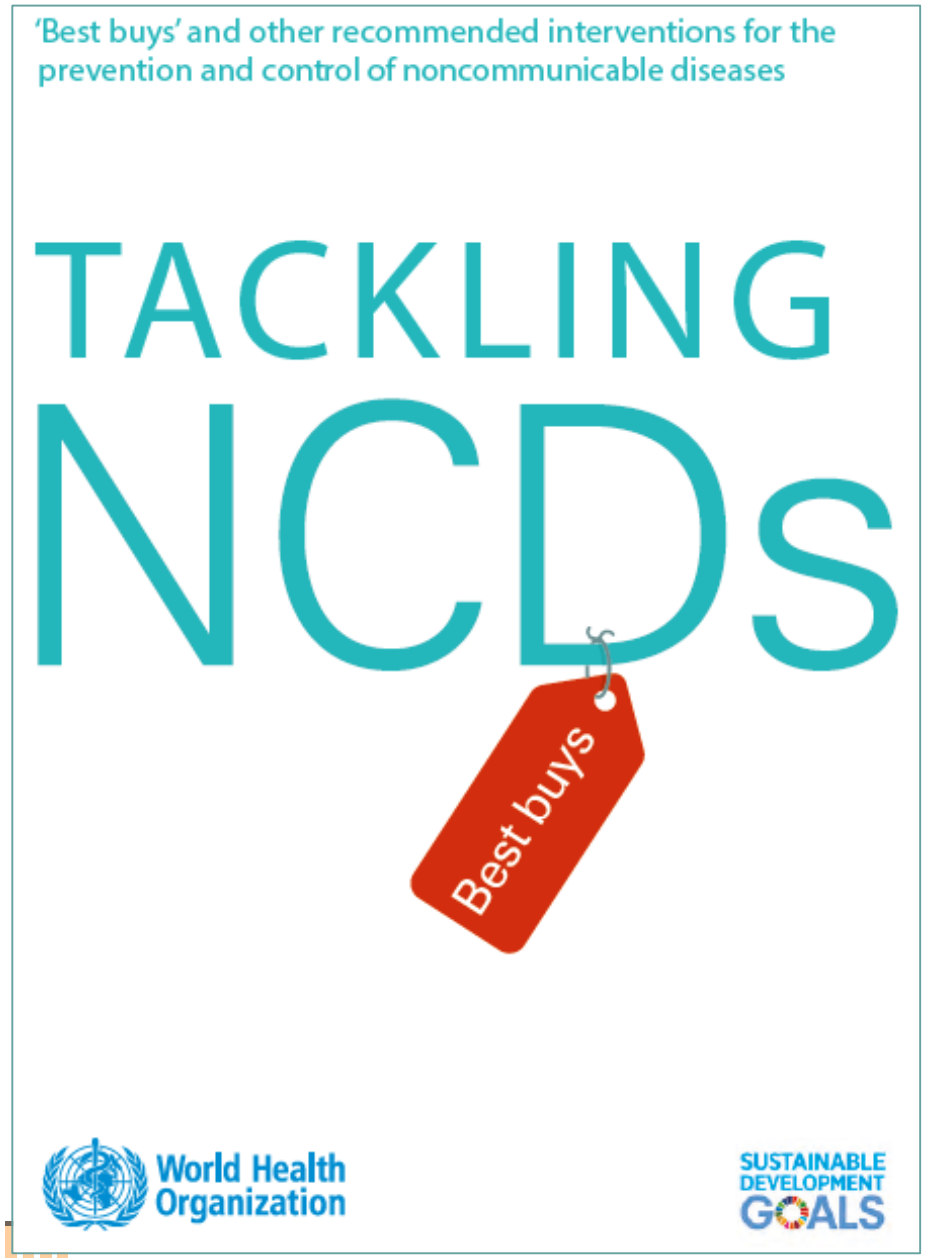
Note: Pricing policies include alcohol excise tax (state); wholesale price restrictions; and retail price restrictions. Physical availability policies include outlet density restrictions; minimum legal drinking age laws; keg registration laws; social host laws (civil liability); house party laws (social host, criminal liability); dram shop liability laws; minimum age of server/seller; state alcohol control systems (monopoly); false ID laws; hours of sale restrictions; days of sale restriction (Sunday sales); responsible beverage service training; restrictions on alcohol consumption in public places, events; bans on alcohol sales; sales or service to intoxicated patrons prohibited; public consumption laws; direct shipment of alcohol to consumers restricted; compliance checks (enforcement of MLDA laws); furnishing alcohol to minors prohibited; public intoxication prohibited; local authority to regulate retail alcohol availability (preemption/conditional-use permits); ABCs present, functional, and adequately staffed; local option permissible; credit card sales of alcohol prohibited; and retail alcohol license policy. Drinking and driving policies include zero-tolerance laws, graduated driver license laws; administrative license revocation; use alcohol–lose license (youth); ignition interlock laws for DUI offenders; BAC 0.08/per se laws; sobriety checkpoints; open container laws; automobiles; mandatory substance abuse assessment for DUI offenders; place of last drink information collection and reporting; and lowering BAC to 0.05/per se. Promotion policies include retail signage restrictions, warning labels on alcohol products, counter-marketing campaigns for alcohol, restrictions on mass media alcohol advertising exposure; nutrition information labels; FAS warning signs; promotional material and giveaway restrictions; and outdoor advertising restrictions.



"Best Buys" (CEA ≤ I$100 per DALY averted in LMICs)

- Increase excise taxes on alcoholic beverages
- Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising
- Enact and enforce restrictions on the physical availability of retailed alcohol

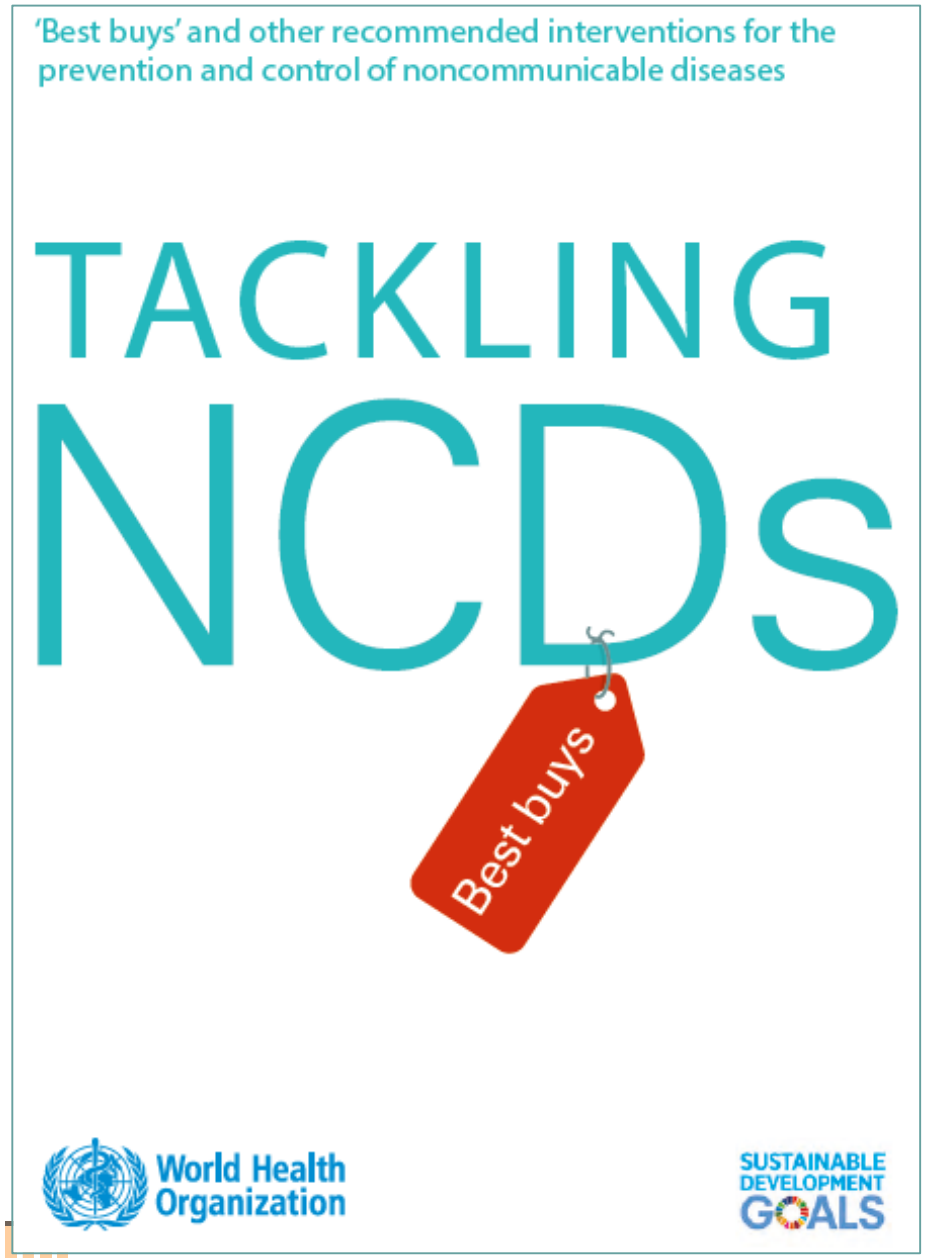
Source: WHO 2017



Effective Interventions (CEA > I$100 per DALY averted in LMICs)

- Enact and enforce drink-driving laws and blood alcohol concentration limits via sobriety checkpoints
- Provide brief psychosocial interventions for persons with hazardous and harmful alcohol use

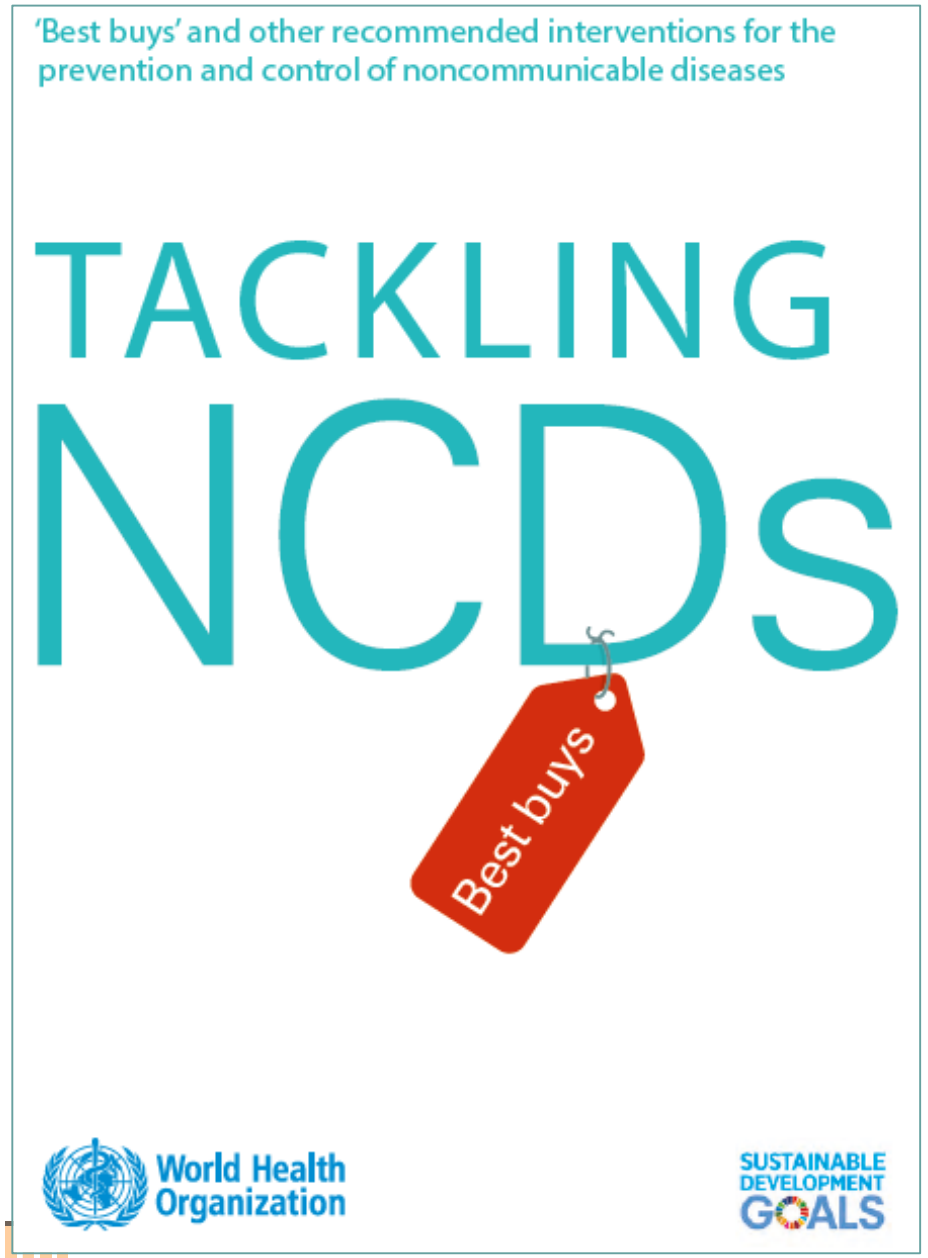
Source: WHO 2017



Other Interventions (No CEA information available)

- Carry out regular review of prices in relation to the level of inflation and income
- Establish minimum prices for alcohol where applicable
- Enact and enforce appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets

Source: WHO 2017

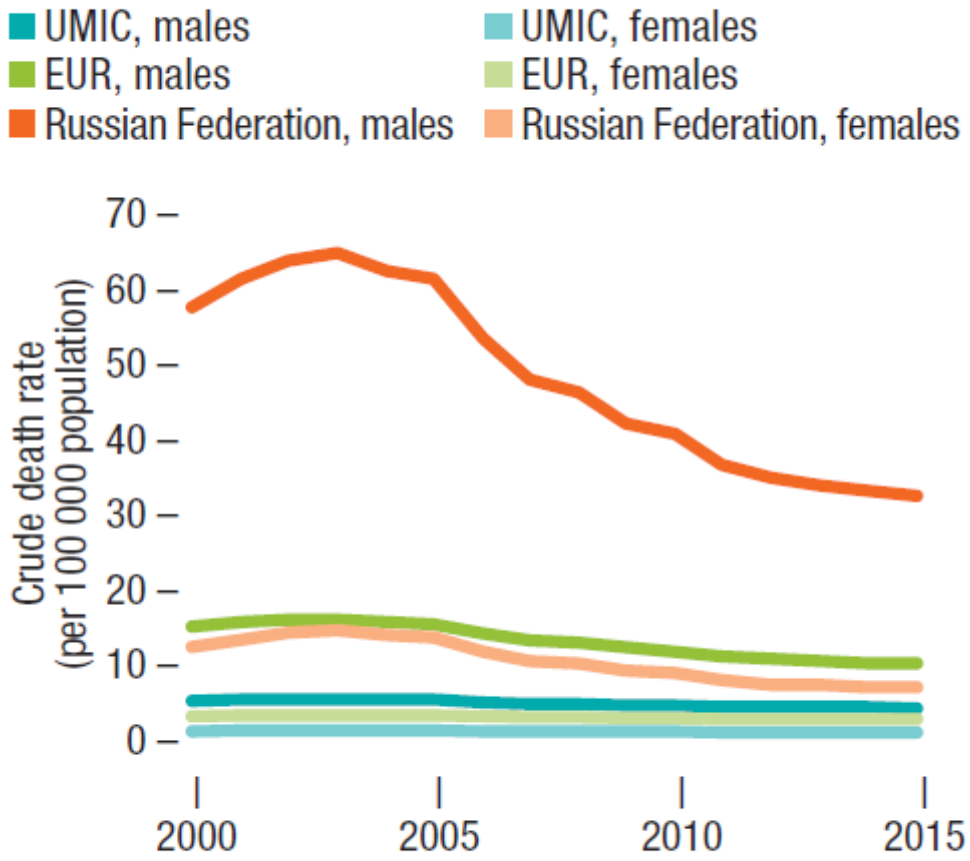


Other Interventions (No CEA information available)

- Restrict or ban promotions of alcoholic beverages with sponsorships and activities targeting young people
- Provide prevention and treatment, and care for alcohol use disorders and comorbid conditions in health and social services
- Provide consumer information about, and label, alcoholic beverages to indicate, the harm related to alcohol

Source: WHO 2017

Death rate from alcohol use per 100 000 population in the Russian Federation,[a] WHO European Region, and upper middle-income countries (UMIC), 2000–2015

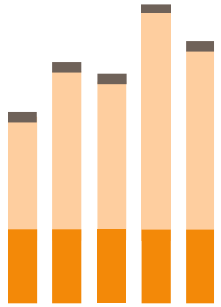


[a] Latest year of data from the Russian Federation is 2011. Estimates for 2012–2015 are projections based on trends in prior years.

Case Study: Russian Federation

- Implemented comprehensive set of alcohol control measures beginning in 2005 and strengthened over time, including:
  - Tax increases
  - Stronger controls on distribution
  - Minimum pricing policies
  - Zero-tolerance drink-driving laws
  - Limits on advertising and promotion
  - Improved treatment and prevention programs

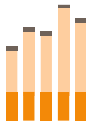
Source: WHO 2017



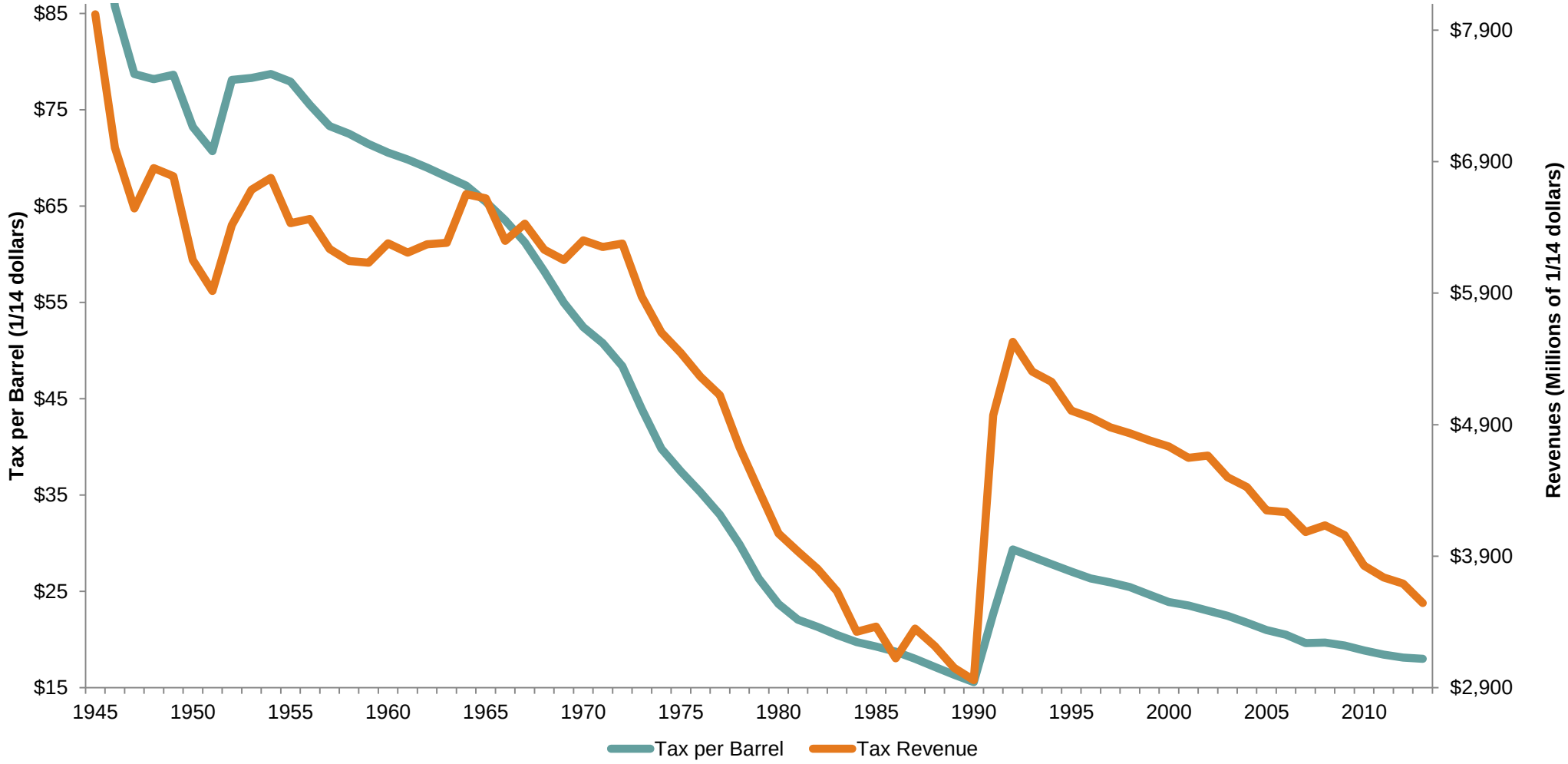
Alcohol Taxation

Why Tax?

- Efficient Revenue Generation
  - Historically and still the most important rationale
- To Improve Public Health
  - Given evidence on effects of taxes on drinking and its consequences
- To Cover the Social Costs of Excessive Drinking
  - Given extensive economic costs from excessive drinking, particularly external costs



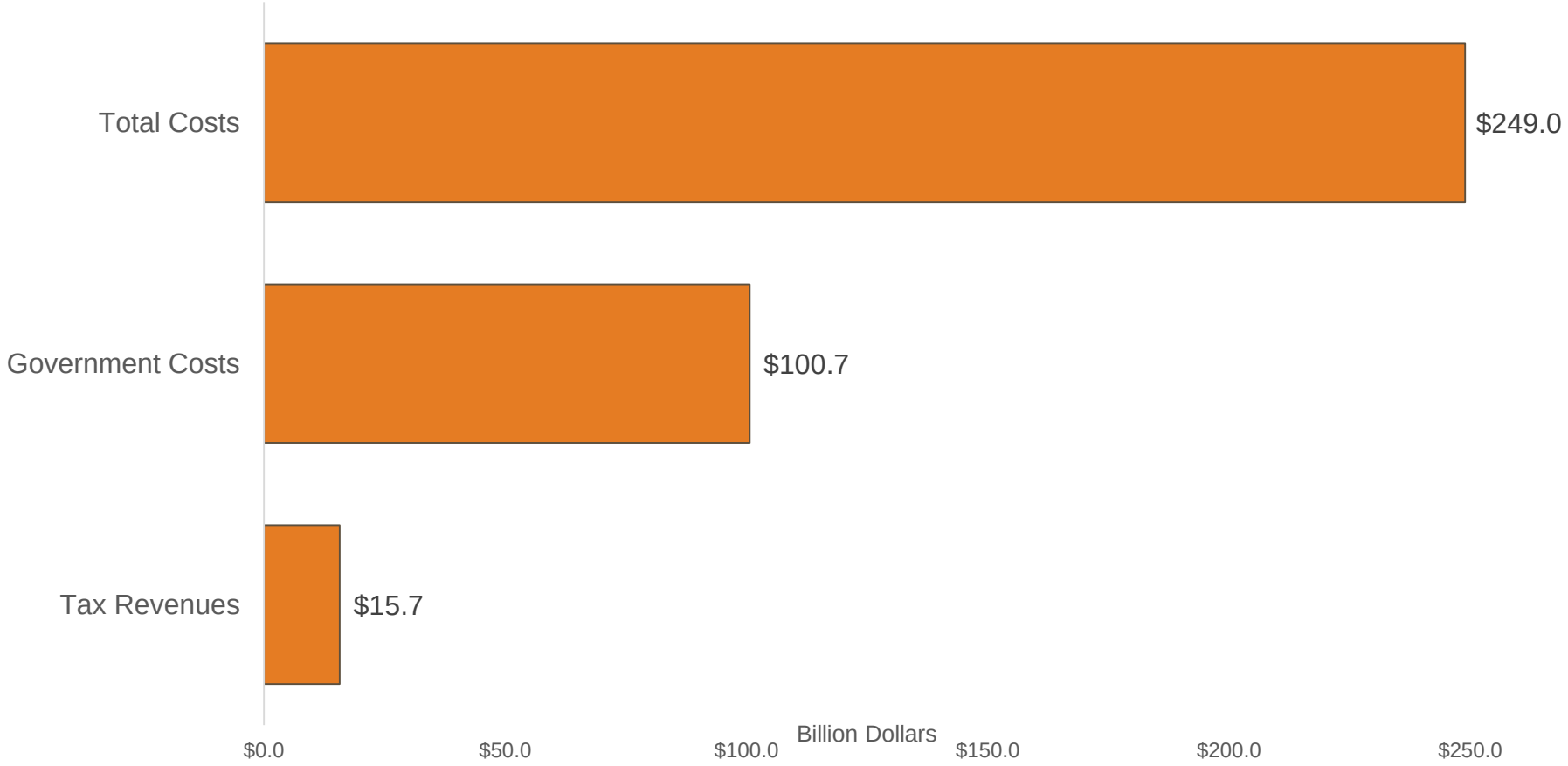
U.S. Federal Beer Tax and Tax Revenues
1945-2013, Inflation Adjusted



Source: *Brewers Almanac*, 2013, ATTTB, 2014, and author's calculations

Economic Costs of Excessive Alcohol Consumption & Alcohol Tax Revenues

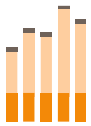
United States, 2010



Sources: Tax Policy Center, 2018; Sacks et al., 2015

Alcohol Prices & Drinking

- Extensive econometric and other research shows that higher prices for alcoholic beverages significantly reduce drinking:
  - 10 percent price increase would reduce:
    - Beer consumption by 1.7 to 4.6 percent
    - Wine consumption by 3.0 to 6.9 percent
    - Spirits consumption by 2.9 to 8.0 percent
    - Overall consumption by 4.4 percent
    - Heavy drinking by 2.8 percent
    - Generally larger effects on youth and young adults

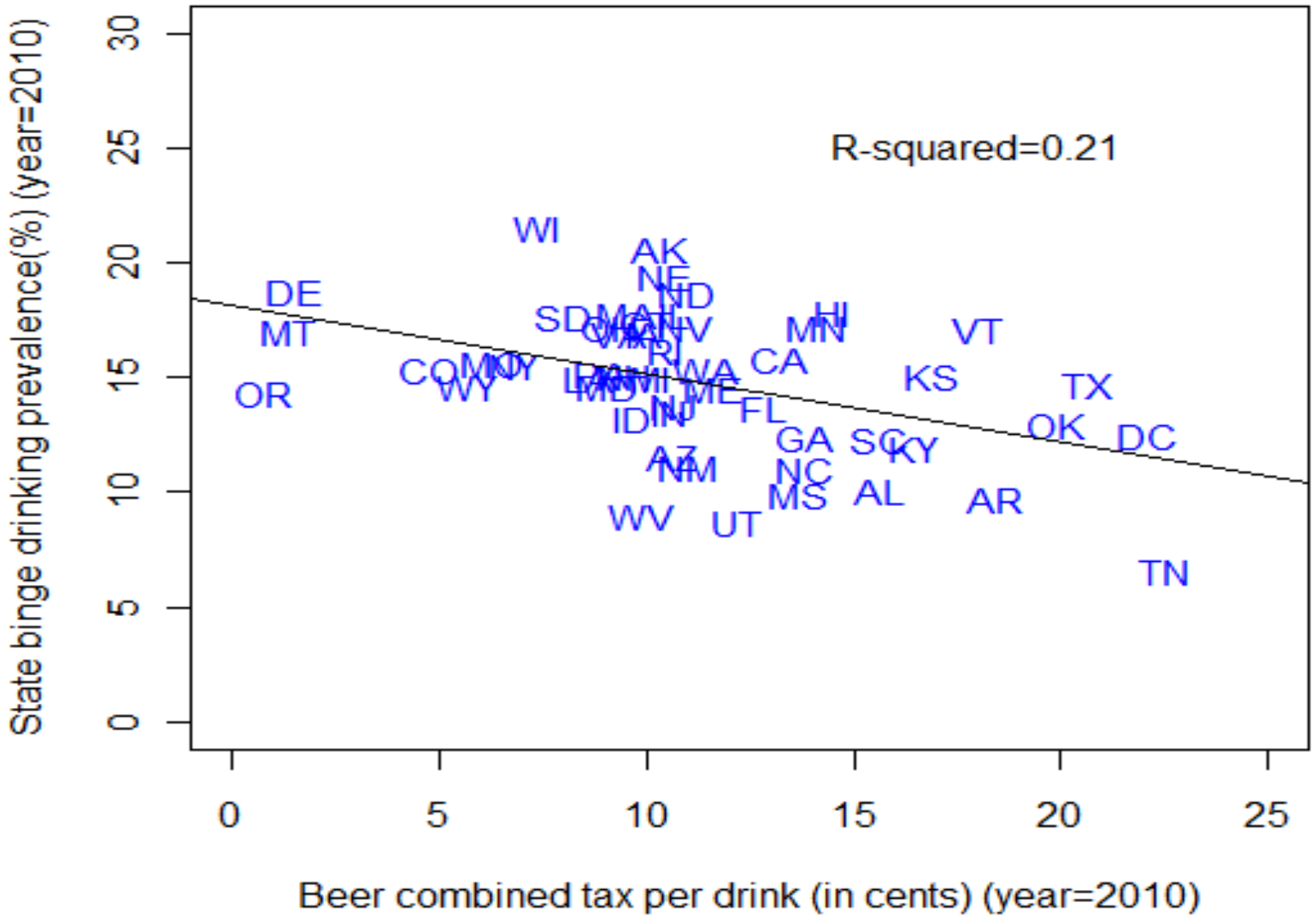


Source: Wagenaar et al., 2009

Distilled Spirits Sales and Prices
Ukraine, 2002-2016, Inflation Adjusted

Sources: Chaloupka, et al., forthcoming

Beer Tax and Binge Drinking Prevalence US States, 2010



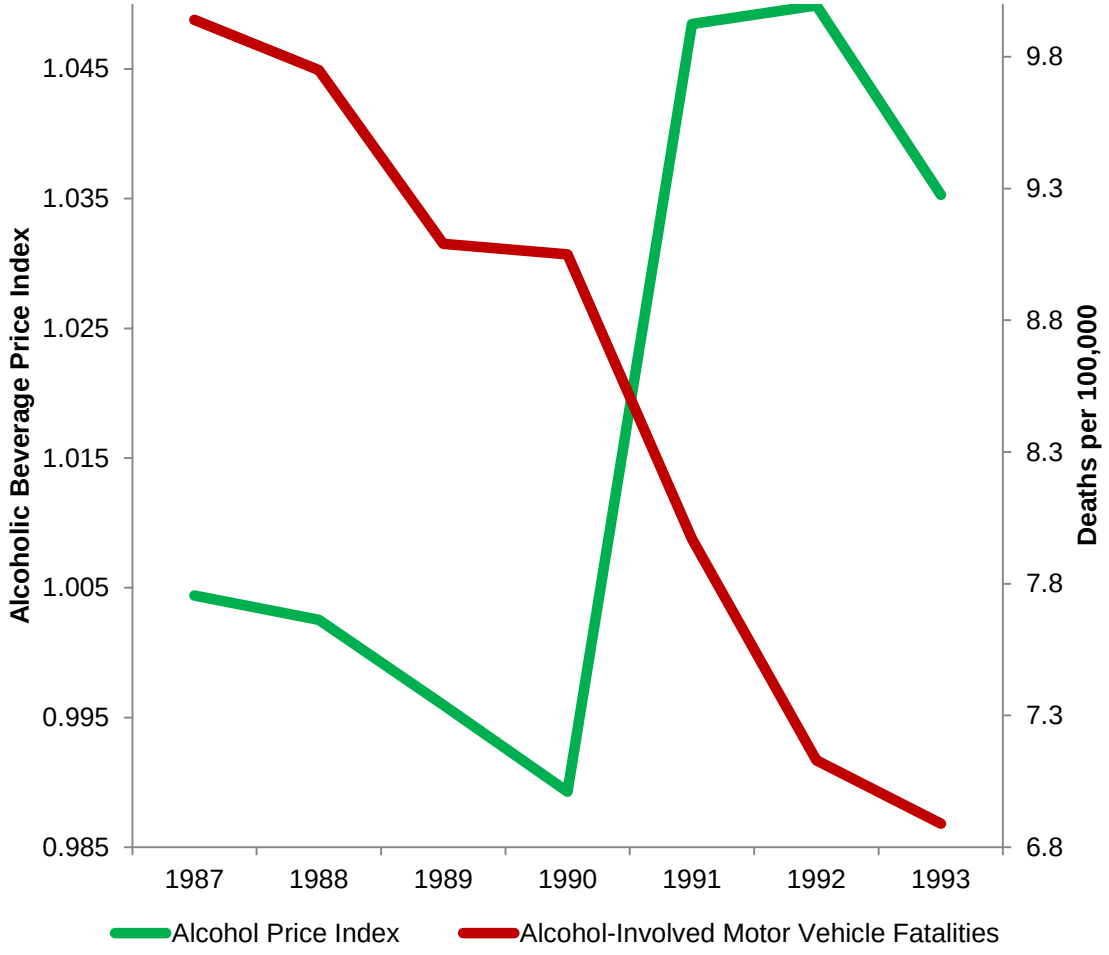
Source: Xuan et al., 2013

Alcohol Prices & Consequences

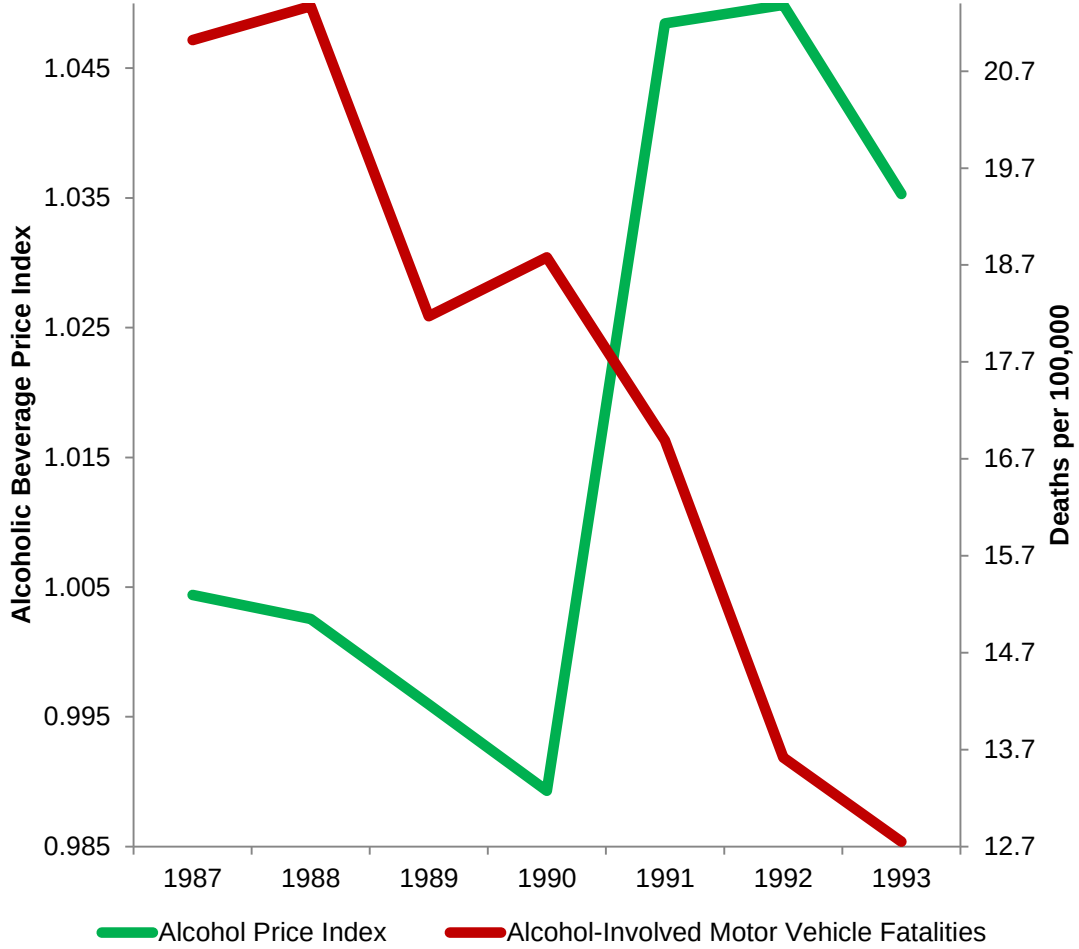
- Extensive econometric and other research shows that higher prices for alcoholic beverages significantly reduce:
  - Drinking and driving, traffic crashes, and motor-vehicle accident fatalities

Source: Xu & Chaloupka, 2011; Wagenaar et al., 2010

Alcohol Prices and Alcohol-Related Traffic Fatalities, US, All Ages, 1987-1993



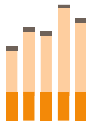
Alcohol Prices and Alcohol-Related Traffic Fatalities, US, Ages 16-20, 1987-1993



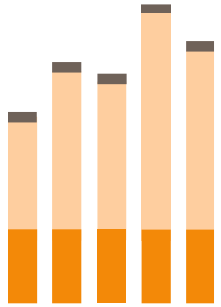
Source: NHTSA, BLS, and author's calculations

Alcohol Prices & Consequences

- Econometric and other research shows that higher prices for alcoholic beverages significantly reduce:
  - Deaths from liver cirrhosis, acute alcohol poisoning, alcohol-related cancers, cardiovascular diseases, and other health consequences of excessive drinking
  - Violence (including spouse abuse, child abuse, and suicide) and other crime
  - Other consequences of drinking, including work-place accidents, teenage pregnancy, and incidence of sexually transmitted diseases



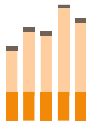
Source: Xu & Chaloupka, 2011; Wagenaar et al., 2010



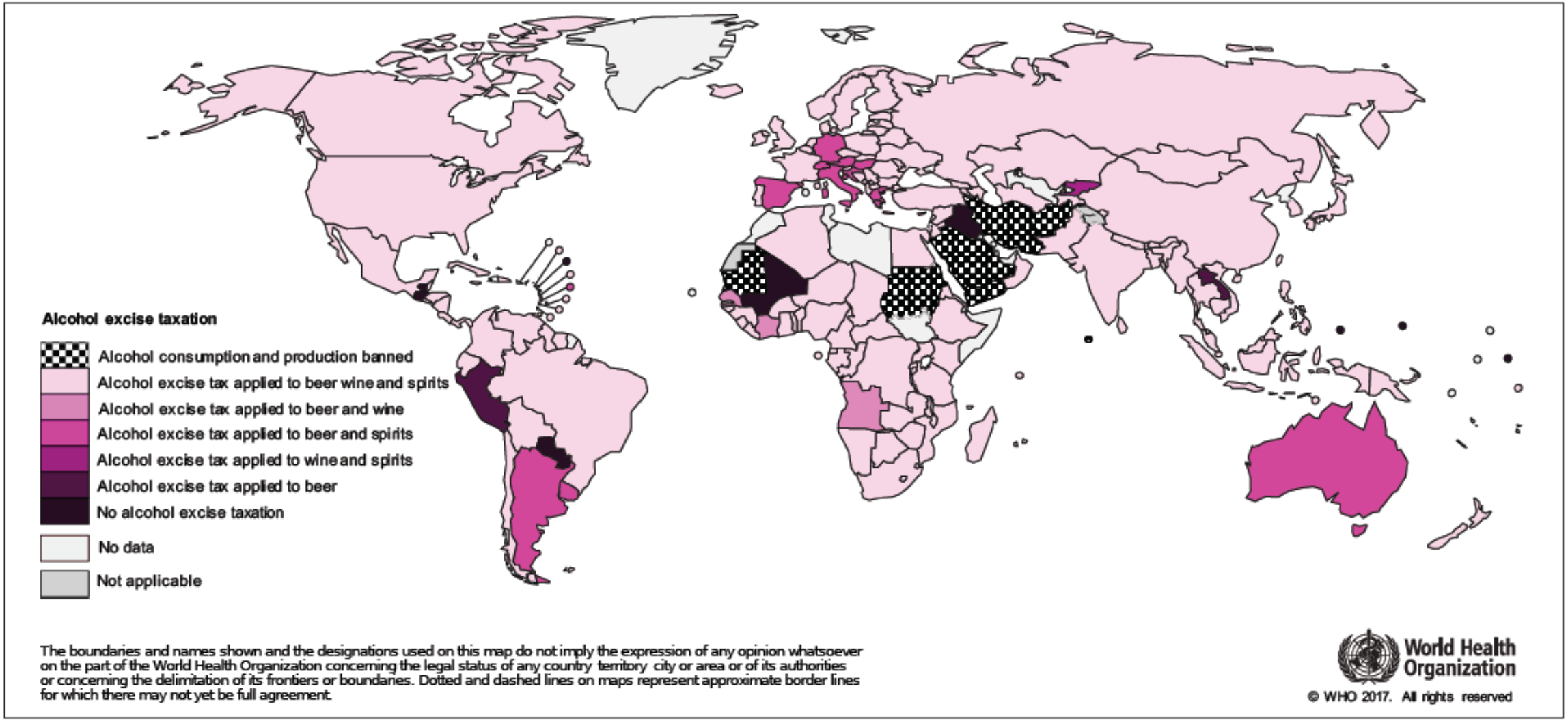
Alcohol Taxation Globally

Alcohol Taxation Globally

- Taxes on alcoholic beverages are low and rarely increased
  - Excise taxes account for relatively modest share (17.3%) of prices
    - 74 reporting countries, 2012
    - Less than half of cigarette excise tax share
  - Taxes generally lowest on beer, highest on distilled spirits
    - Some countries tax some beverages but not others
  - Mix of different tax structures (specific, *ad valorem,* and mixed)
  - Specific tax base varies (volume, ethanol)
  - Tax increases are infrequent and generally small

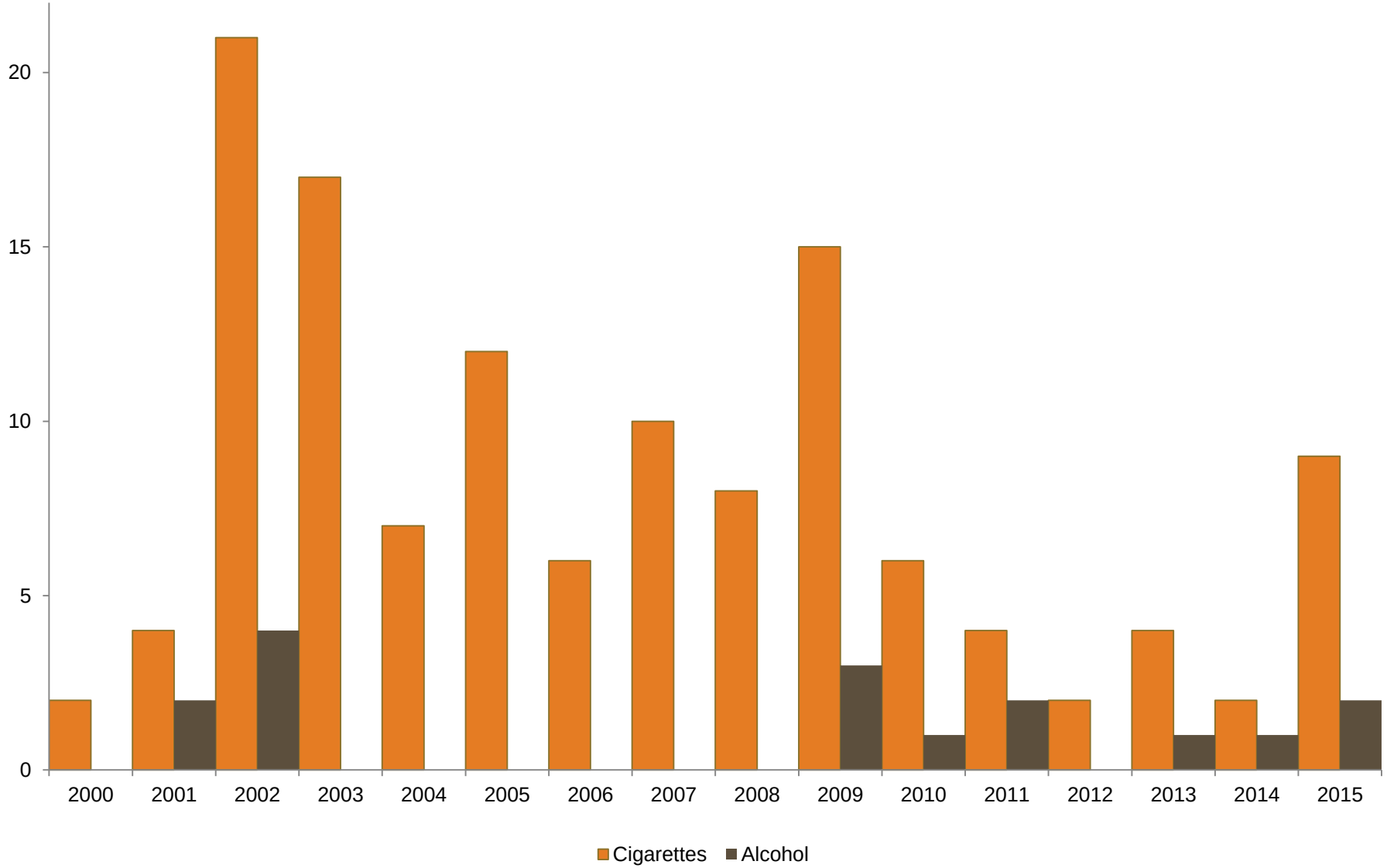


Alcoholic Beverage Excise Taxes by Beverage Type



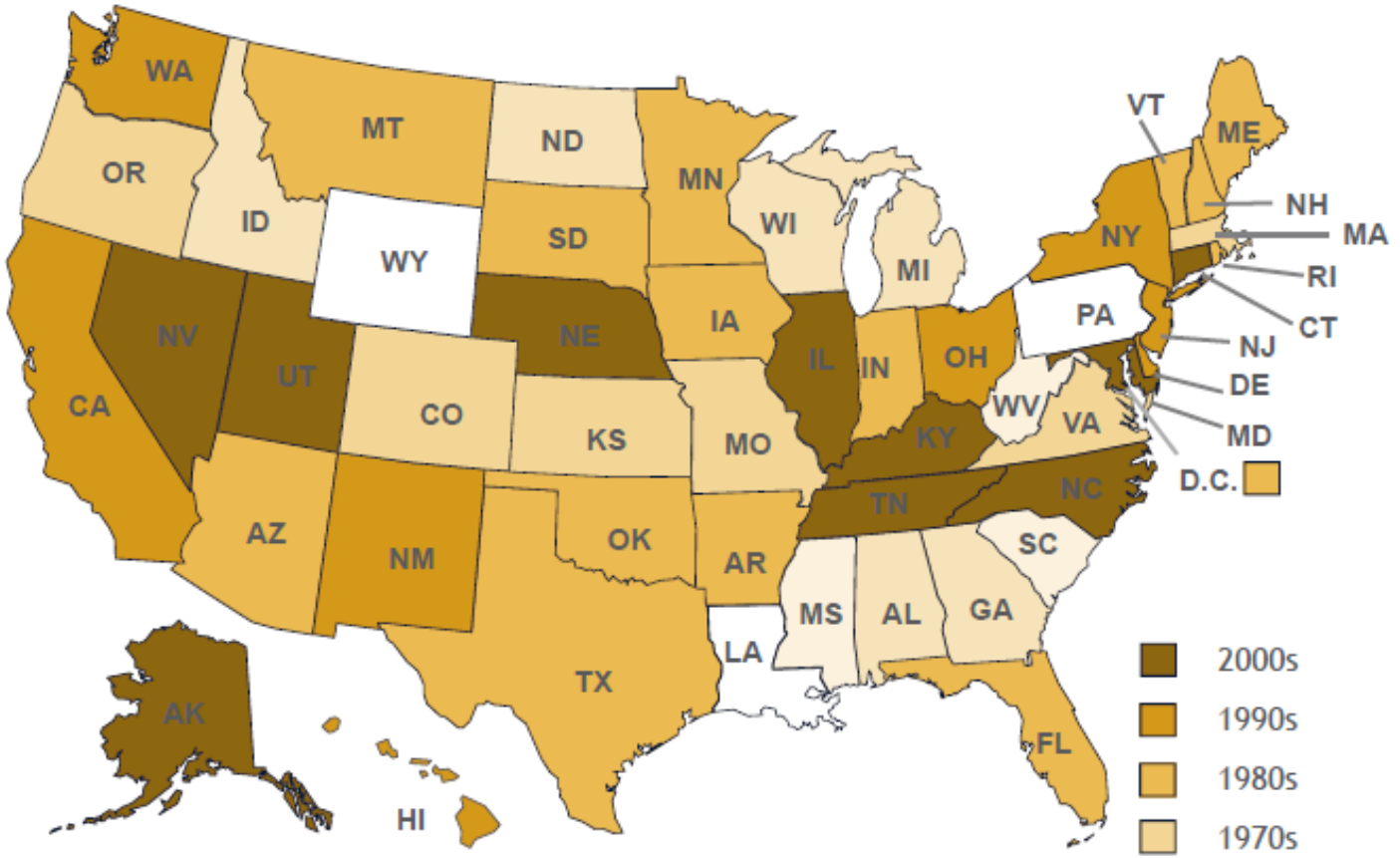
Source: WHO 2017

U.S. State Cigarette & Beer Tax Increases, 2000-2015

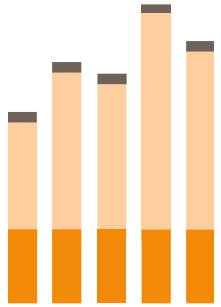


Sources: Campaign for Tobacco Free Kids; NIAAA Alcohol Policy Information System; Brewers Almanac
Note: Does not show the multiple reductions in beer taxes and the few reductions in cigarette taxes

Decade of Last Permanent Beer Tax Increase



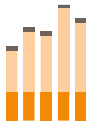
bridging the gap



Economic Impact
-
Myths & Facts

Common Oppositional Arguments

- Alcohol industry uses several common arguments in opposition to tax increases:
  - Won’t have the intended impact in terms of reducing use and consequences
  - Won’t generate the anticipated revenues
  - Will lead to extensive tax avoidance and tax evasion
  - Will harm poor and working class consumers
  - Will lead to massive job losses



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Employment impacts of alcohol taxes☆

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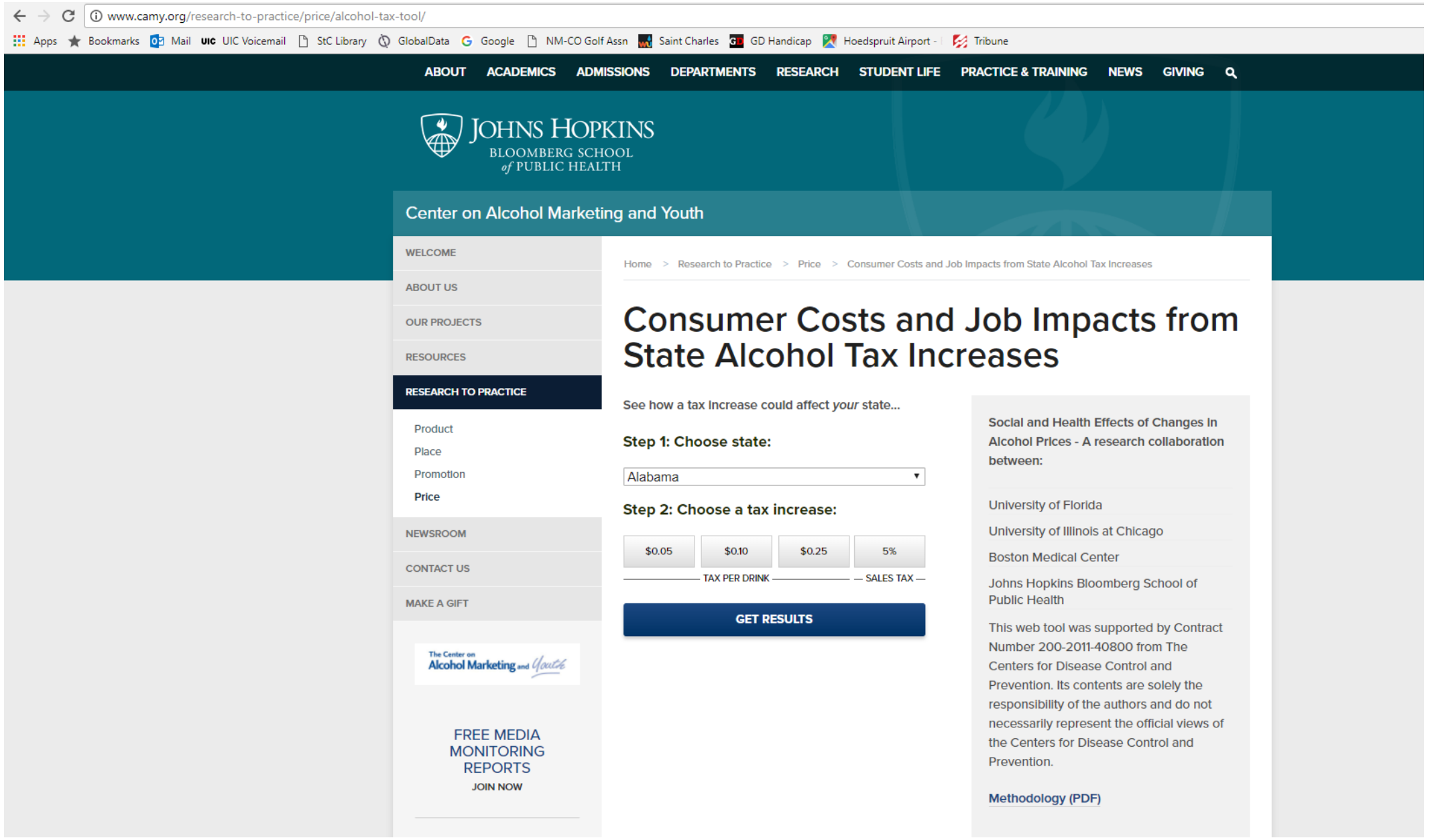
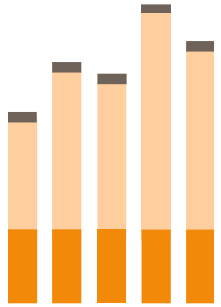
Sales taxes
Employment

ABSTRACT

There is strong scientific evidence supporting the effectiveness of increasing alcohol taxes for reducing excessive alcohol consumption and related problems. Opponents have argued that alcohol tax increases lead to job losses. However, there has been no comprehensive economic analysis of the impact of alcohol taxes on employment. To fill this gap, a regional macroeconomic simulation model was used to assess the net impact of two hypothetical alcohol tax increases (a 5-cent per drink excise tax increase and a 5% sales tax increase on beer, wine, and distilled spirits, respectively) on employment in Arkansas, Florida, Massachusetts, New Mexico, and Wisconsin. The model accounted for changes in alcohol demand, average state income, and substitution effects. The employment impact of spending the new tax revenue on general expenditures versus health care was also assessed. Simulation results showed that a 5-cent per drink additional excise tax on alcoholic beverages with new tax revenues allocated to general expenditures increased net employment in Arkansas (802 jobs); Florida (4583 jobs); Massachusetts (978 jobs); New Mexico (653 jobs); and Wisconsin (1167 jobs). A 5% additional sales tax also increased employment in Arkansas (789 jobs; Florida (4493 jobs); Massachusetts (898 jobs); New Mexico (621 jobs); and Wisconsin (991 jobs). Using new alcohol tax revenues to fund health care services resulted in slightly lower net increases in state employment. The overall economic impact of alcohol tax increases cannot be fully assessed without accounting for the job gains resulting from additional tax revenues.



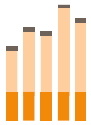
http://www.camy.org/research-to-practice/price/alcohol-tax-tool/



Summary

Summary

- Economic costs of excessive drinking are considerable
- Alcohol tax increases reduce drinking and its consequences
- Alcohol taxes are generally low and increased infrequently
- Counterarguments about negative economic impact of tax increases are false or greatly overstated



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