

## Sample Proposals for Increasing Federal Alcohol Excise Taxes: Projected Consumption and Cost Decreases

Prepared by the Center for Science in the Public Interest, March, 2009

	Beverage	Current Tax Rate (per gallon)	Proposed Tax Rate (per gallon)	Percent Decrease in Consumption (2007 Data)	2007 Total Consumption (Gallons)	2007 Total Consumption (Ethanol)	Reduction in Consumption (Gallons)	Reduction in Consumption (Ethanol)	Reduction in Consumption Weighted by Market Share (Ethanol)	Weighted Average Percent Reduction Based on Market Share (Ethanol)
Indexed for inflation since last increase (1991)	Beer	\$0.58	\$0.92	1.13	6,585,525,000	296,348,625	74,416,433	3,348,739	3,148,975	1.06
	Wine*	\$1.07	\$1.70	1.16	694,271,000	83,312,520	8,053,544	966,425	797,180	0.96
	Liquor	\$10.80	\$17.18	3.85	431,954,000	33,325,008	16,630,229	1,283,013	1,652,022	4.96
	<b>TOTAL</b>				<b>7,711,750,000</b>	<b>412,986,153</b>	<b>99,100,205</b>	<b>5,598,178</b>	<b>5,598,178</b>	<b>2.33</b>
Nickel per drink increase	Beer	\$0.58	\$1.11	1.76	6,585,525,000	296,348,625	115,905,240	5,215,736	4,523,454	1.53
	Wine	\$1.07	\$2.35	2.36	694,271,000	83,312,520	16,384,796	1,966,175	1,145,138	1.37
	Liquor	\$10.80	\$15.07	2.58	431,954,000	33,325,008	11,144,413	859,785	2,373,105	7.12
	<b>TOTAL</b>				<b>7,711,750,000</b>	<b>412,986,153</b>	<b>143,434,449</b>	<b>8,041,696</b>	<b>8,041,696</b>	<b>3.34</b>
**CBO option: equalized at \$16/proof gallon	Beer	\$0.58	\$1.44	2.86	6,585,525,000	296,348,625	188,346,015	8,475,571	7,112,548	2.40
	Wine	\$1.07	\$3.52	4.52	694,271,000	83,312,520	31,381,049	3,765,726	1,800,581	2.16
	Liquor	\$10.80	\$12.80	1.21	431,954,000	33,325,008	5,226,643	403,233	3,731,401	11.20
	<b>TOTAL</b>				<b>7,711,750,000</b>	<b>412,986,153</b>	<b>224,953,708</b>	<b>12,644,529</b>	<b>12,644,529</b>	<b>5.25</b>
CBO-type option: equalized at \$20.25/proof gallon (50% increase in liquor rate)	Beer	\$0.58	\$1.82	4.07	6,585,525,000	296,348,625	268,030,868	12,061,389	10,324,584	3.48
	Wine	\$1.07	\$4.46	6.25	694,271,000	83,312,520	43,391,938	5,207,033	2,613,726	3.14
	Liquor	\$10.80	\$16.20	3.26	431,954,000	33,325,008	14,081,700	1,086,395	5,416,506	16.25
	<b>TOTAL</b>				<b>7,711,750,000</b>	<b>412,986,153</b>	<b>325,504,505</b>	<b>18,354,817</b>	<b>18,354,817</b>	<b>7.62</b>

\* There are five categories of wine, each taxed at different rates. However, wine tax collections are reported as a whole in available summaries from the Alcohol & Tobacco Tax and Trade Bureau. Since regular table wine (0-14%), taxed at \$1.07 per gallon, constitutes about 91% of total wine consumption, we have created this proposal under the assumption that all wine is taxed at this rate. Thus the revenue projections for wine are an approximation and slight underestimation, because other types of wine are taxed at higher rates.

\*\* Varies from actual CBO estimate and does not account for reductions in income and payroll taxes. CBO estimates \$28.2 billion in new revenues over 5 years for this option (Budget Options for Congress, December, 2008)

**FORMULA:**

STEP 1: Percentage Price Increase = ((Proposed Tax Rate - Current Tax Rate) x (1 + Markup)) / (Current Avg. Retail Price per Gallon)

STEP 2: Decrease in Consumption = ((Percentage Price Increase) x (Elasticity)) x (Consumption)

STEP 3: Consumption at Proposed Rate = (Consumption) + (Decrease in Consumption)

STEP 4: Projected Revenues = (Consumption at Proposed Rate) x (Proposed Tax Rate)

STEP 5: Projected Revenue Gain = (Projected Revenues) - (Actual 2005 Revenues)

**ASSUMPTIONS:**

Markup = .075

Current Avg. Retail Price per Gallon = Beer, \$14.87; Wine, \$40.22; Liquor, \$142.53; Calculated by dividing total on- and off-premise sales by total consumption, as listed in Adams Beverage Handbooks, 2008.

Elasticity = Beer, -0.46; Wine:-0.69; Liquor:-0.80. Based on Wagenaar (2009).

Ethanol Content = 4.5% for Beer; 12% for Wine and 40% for Liquor (based on <http://www.rethinkingdrinking.niaaa.nih.gov/WhatCountsDrink/WhatsAstandardDrink.asp>)

Market Share (of total ethanol) = 56.25% for Beer, 14.24% for Wine, and 29.51% for Liquor (Adams Beverage Handbooks, 2008).

