State Alcohol Taxes in the U.S.: Types, Amounts, and Comparison to Alcohol-Related Costs

Timothy S. Naimi M.D., M.P.H
As required by the Alcohol Policy 18 Conference, I/we have signed a disclosure statement and note the following conflict(s) of interest:

None.
Background: Alcohol Consumption

• 106,000 deaths annually, 88,000 due to excessive drinking
• $249 billion in costs annually in the U.S.; ~$750 per adult per year, $2 per drink
• “Second-hand” health and economic effects, (i.e., problems borne by society and not by alcohol companies and the drinker)
• 3 factors above justifications for taxation
Background: Alcohol Taxes

• Taxes effective for reducing excessive drinking among adults, youth drinking
• Taxes effective for reducing harms:
  – car crashes
  – other injuries
  – violence
  – cirrhosis
• Raise revenues for government
Taxes, cont.

• Those drinking excessively pay 5x as much
• Those with higher household incomes pay more
• Racial minorities pay less than Whites
• Employed pay more than non-employed

• Across all sectors of the economy, increased taxes increase jobs

Prev Chronic Dis 2016;13:150450. DOI: http://dx.doi.org/10.5888/ pcd13.150450
However …

- Tax increases are rare, face substantial political and industry opposition
- People, policymakers unaware of current alcohol tax magnitudes
  - Taxes based on weird units of measurement
  - For percentage-based, prices vary
- Objective: describe distribution of tax types in states, quantify tax magnitude on a per-drink basis, compare to costs
Tax Types

• Specific excise taxes (i.e., excise tax)
  – Fixed amount per unit volume
  – Levied in arcane units (i.e., $18/barrel of beer)
  – Incorporated into the shelf life

• Ad valorem taxes
  – Percentage of price, may be wholesale or retail
  – Prices vary widely, on- vs. off-premises

• Sales taxes
  – Percentage of retail price
  – Not product specific
Methods: Excise Tax Values and Excise Tax Erosion

• Tax Data Sources
  – Alcohol Policy Information System (APIS)
  – Tax Foundation

• Inflation-adjusted to 2015

• Assessed taxes by beverage type (beer, spirits, wine)

• Study restricted to beverages not subject to state alcohol monopolies
Results:

Current Excise Taxes,
Excise Tax Erosion
## State alcohol excise taxes in 2015, and changes in inflation-adjusted excise taxes since 1991, by beverage type

<table>
<thead>
<tr>
<th>State average</th>
<th>Beer&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Spirits&lt;sup&gt;b, e&lt;/sup&gt;</th>
<th>Wine&lt;sup&gt;c, e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015 Tax Rate ($ per drink)</td>
<td>% Change Since 1991&lt;sup&gt;d&lt;/sup&gt;</td>
<td>2015 Tax Rate ($ per drink)</td>
</tr>
<tr>
<td>State average</td>
<td>0.03</td>
<td>-30%</td>
<td>0.05</td>
</tr>
<tr>
<td>Alabama</td>
<td>0.10</td>
<td>-42%</td>
<td>N/A</td>
</tr>
<tr>
<td>Alaska</td>
<td>0.10</td>
<td>77%</td>
<td>0.15</td>
</tr>
<tr>
<td>Arizona</td>
<td>0.02</td>
<td>-42%</td>
<td>0.04</td>
</tr>
<tr>
<td>Arkansas</td>
<td>0.02</td>
<td>-42%</td>
<td>0.03</td>
</tr>
<tr>
<td>California&lt;sup&gt;f&lt;/sup&gt;</td>
<td>0.02</td>
<td>-42%</td>
<td>0.04</td>
</tr>
</tbody>
</table>

<sup>a</sup> State average is for beer; <sup>b</sup> state average is for spirits; <sup>c</sup> state average is for wine; <sup>d</sup> percentage change since 1991; <sup>e</sup> includes inflation adjustment; <sup>f</sup> includes gasoline distillation credit.
Mean of state alcohol excise tax values by beverage type, 1991-2015

- **Spirits**
- **Wine**
- **Beer**
Results, cont.

• Beer excise tax: 16 of 50 states have a tax of 1 cent per drink or less
• Of the 5 states that increased beer taxes during the past 25 years, the average tax is still only 6 cents per drink
• 13 of 32 states have a wine tax of 2 cents per drink or less
• Of the 6 states that have increased wine taxes during the past 25 years, average tax 6 cents
• Of 3 of 32 states that have increased spirits tax, average tax is 10 cents
### Year of tax inception, inflation-adjusted rate at inception, and inflation-adjusted change in value of state alcohol specific excise taxes from inception, by beverage type

<table>
<thead>
<tr>
<th>Beverage Type</th>
<th>Year of Inception</th>
<th>Rate at Inception (Inflation Adjusted)</th>
<th>% Change</th>
<th>Year of Inception</th>
<th>Rate at Inception (Inflation Adjusted)</th>
<th>% Change</th>
<th>Year of Inception</th>
<th>Rate at Inception (Inflation Adjusted)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All States</strong></td>
<td>1933</td>
<td>0.08</td>
<td>-64%</td>
<td>1935</td>
<td>0.15</td>
<td>-67%</td>
<td>1934</td>
<td>0.11</td>
<td>-70%</td>
</tr>
<tr>
<td><strong>Alabama</strong></td>
<td>1937</td>
<td>0.08</td>
<td>27%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Alaska</strong></td>
<td>1933</td>
<td>0.08</td>
<td>21%</td>
<td>1937</td>
<td>0.10</td>
<td>54%</td>
<td>1933</td>
<td>0.03</td>
<td>182%</td>
</tr>
<tr>
<td><strong>Arizona</strong></td>
<td>1933</td>
<td>0.08</td>
<td>-82%</td>
<td>1933</td>
<td>0.17</td>
<td>-79%</td>
<td>1934</td>
<td>0.17</td>
<td>-80%</td>
</tr>
<tr>
<td><strong>Arkansas</strong></td>
<td>1934</td>
<td>0.05</td>
<td>-55%</td>
<td>1935</td>
<td>0.08</td>
<td>-62%</td>
<td>1935</td>
<td>0.03</td>
<td>-10%</td>
</tr>
<tr>
<td><strong>California</strong></td>
<td>1933</td>
<td>0.03</td>
<td>-44%</td>
<td>1935</td>
<td>0.16</td>
<td>-76%</td>
<td>1934</td>
<td>0.01</td>
<td>-44%</td>
</tr>
</tbody>
</table>
Results, cont.

• Since inception:
  – 4/50 states have raised taxes
  – 4/32 states have raised wine taxes
  – 1/32 states has raised sprits taxes
Percent decline in value of beer excise tax since inception of the tax

* Alabama and Georgia have increased in value
Methods:
Tax Types, Total Tax Magnitude, Comparison to Costs

- Tax Data Sources as above; federal excise taxes: beer ($0.05), distilled spirits ($0.16), wine ($0.04)
- Price estimates from Impact Databank (beverage specific, on-premise vs. off-premise)
- State-specific consumption, by beverage type, from Alcohol Data Epidem. System (ADES)
- Assumed 75% of alcohol consumed off premise to develop a weighted average price per drink
• Taxes were inflation-adjusted to 2010 to match cost data
• Cost estimates included costs from legal system, criminal justice system, medical care expenditures, lost productivity
• Costs allocated by state on a per-drink basis, based on per capita sales data from ADES
RESULTS:

Tax Types in States
Magnitude of Total Taxes
Comparison with Costs
Total state alcohol taxes by beverage type, and proportion from excise tax, United States, 2010

<table>
<thead>
<tr>
<th>States</th>
<th>Sales Tax</th>
<th>Ad Valorem Taxes</th>
<th>Beer</th>
<th>Wine</th>
<th>Spirits</th>
<th>All Types</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Tax ($/drink)</td>
<td>Proportion from Excise Tax</td>
<td>Total Tax ($/drink)</td>
<td>Proportion from Excise Tax</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td></td>
<td>0.10</td>
<td>19.0%</td>
<td>0.18</td>
<td>13.3%</td>
</tr>
<tr>
<td>Alabama</td>
<td>*</td>
<td></td>
<td>0.15</td>
<td>65.6%</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Alaska</td>
<td></td>
<td></td>
<td>0.10</td>
<td>100.0%</td>
<td>0.10</td>
<td>100.0%</td>
</tr>
<tr>
<td>Median</td>
<td>*</td>
<td></td>
<td>0.10</td>
<td>14.9%</td>
<td>0.18</td>
<td>18.1%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>*</td>
<td>*</td>
<td>0.18</td>
<td>12.8%</td>
<td>0.32</td>
<td>9.5%</td>
</tr>
<tr>
<td>California</td>
<td>*</td>
<td></td>
<td>0.13</td>
<td>14.9%</td>
<td>0.19</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
Results, cont.

- 43 states apply sales tax (not AK, DE, DC, KS, MT, ND, NH, OR)
- 16 apply ad valorem taxes
- States that apply *neither* sales or ad valorem: AK, DE, MT, OR (MA)
- States that get >50% of tax revenue from excise taxes have lower total taxes
### State and federal alcohol taxes compared to costs for excessive drinking, United States, 2010

<table>
<thead>
<tr>
<th>States</th>
<th>Average State Alcohol Tax for All Beverage Types ($ per drink),</th>
<th>Average Federal Plus State Alcohol Tax for All Beverage Types ($ per drink)</th>
<th>Cost of Excessive Drinking ($/drink)</th>
<th>Federal plus State Tax per drink as a % of Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>0.13</td>
<td>0.21</td>
<td>2.05</td>
<td>10.3%</td>
</tr>
<tr>
<td>Alabama</td>
<td>n/a</td>
<td>n/a</td>
<td>2.27</td>
<td>n/a</td>
</tr>
<tr>
<td>Alaska</td>
<td>0.12</td>
<td>0.20</td>
<td>2.25</td>
<td>8.8%</td>
</tr>
<tr>
<td>Arizona</td>
<td>0.13</td>
<td>0.20</td>
<td>2.27</td>
<td>8.9%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>0.23</td>
<td>0.31</td>
<td>2.27</td>
<td>13.6%</td>
</tr>
<tr>
<td>California</td>
<td>0.15</td>
<td>0.23</td>
<td>2.44</td>
<td>9.2%</td>
</tr>
</tbody>
</table>
Proportion of alcohol-related costs accounted for by alcohol taxes on a per-drink basis among the 32 license (non-monopoly) states in the United States, 2010
Caveats, Limitations

• Lack of state-specific price data, had to rely on national estimates, to calculate value-based taxes

• Cost estimate did not include intangible effects

• Sales tax not product-specific, perhaps should not be “counted” when assessing the coverage of costs by alcohol taxes
Summary

• Current state excise taxes are low, 5 cents per drink or less for all beverage types
• State excise taxes have declined c/w historical levels (similar federally since 1991)
• Considering all tax types, the magnitude of state plus federal taxes does not cover the economic costs of alcohol, including the costs to government (i.e., taxpayers)
• This amounts to a subsidy of alcohol consumption