CHANGES IN SPIRITS PURCHASING BEHAVIORS AFTER PRIVATIZATION IN WASHINGTON

WILLIAM C. KERR
Yu Ye
Thomas K. Greenfield
4/13/18
As required by the Alcohol Policy 18 Conference, I/we have signed a disclosure statement and note the following conflict(s) of interest:

Drs. Kerr and Greenfield have received contracts and travel support from NABCA.
DETAILS OF PRIVATIZATION

INITIATIVE 1183: June 1, 2012

Producers can now sell directly to retailers

Spirit taxes designed to retain same revenue as monopoly

Taxes roughly triple the next highest state

Stores increased from 330 to 1600
BEER TAX AND MARIJUANA LEGALIZATION

Nov 2012

MARIJUANA LEGALIZED
Regulated by the Liquor Control Board
A hybrid 2 or 3 tier system
25% at each Transfer & retail

July 2013

BEER TAX
$23.58
First 60,000 gallons by a brewer = $4.78

July 2014

RETAIL STORES OPEN
JULY 2015:
Tax rate 37%
retail only
TAXES

10% of the wholesale price paid by Distributor; drops to 5% in 28th month operating

+ 17% of the retail price paid by retailer

+ 20.5%

+ $2.83 per 750ml bottle spirits volume tax

COMPARE TO:

WA 2014 = $34.93/gallon or $0.41/standard drink

WA Beer = $0.07/standard drink

National average = $0.06/standard drink
The sample consists of four representative surveys of adults (aged 18 and over) in Washington state, with sample recruitment taking place separately in January-April 2014 (Wave 1, N=1202), August-October 2014 (Wave 2, N=804), March-May 2015 (Wave 3, N=823) and August-October 2015 (Wave 4, N=662). Participants were reached via Random Digit Dial sampling, which includes >40% from cell phone exchanges. AAPOR2 cooperation rates, (landline, cell) were: Wave 1 (50.8%, 59.5%), Wave 2 (45.8%, 62.4%), Wave 3 (43.7%, 61.5%) and Wave 4 (41.7%, 59.6%).
CURRENT SPIRITS PURCHASING BEHAVIORS.

- **Travel distance:** “how long does it typically take you to get from your home to the store where your last liquor purchase occurred?” - “less than 5 minutes”, “5-10”, “10-15”, “15-20” and “20 minutes or more”.

- **Quality of spirits:** coded to “low”, “premium” and “high premium” from questions on type and brand.

- **Bottle size:** “750 milliliters or ‘fifth’”, “1 liter or ‘quart’”, “1.75 liters or ‘half gallon’”, “50 milliliters or ‘mini’”, “200 milliliters or ‘half pint’”, “375 milliliters or ‘pint’”

- **Purchase frequency:** “how often do you typically shop for liquor products” - “daily”, “weekly”, monthly”, every couple of months”, “2-4 times year”, and “once a year”.

www.arg.org
CURRENT STORE TYPE

- Was elicited from the question “what was the name of the store where your last liquor purchase occurred”.
- It was an open-ended question in the first wave. Starting from Wave 2, the respondents were asked to choose from options such as “Albertsons”, “Costco”, etc.
- The answers were recoded and the final store type variable for current analysis includes the categories of: liquor superstore, liquor store, grocery, drug store, department, wholesale, liquor store in bordering states and others.
“Think about a typical month around this time of year two (or three) years ago around [Fill in the current month] of 2012, before the privatization of the liquor stores, how often did you typically shop for liquor products”

“how long did it typically take you to get from your home to the store where you bought liquor at that time”.
1) “Was your experience purchasing liquor more convenient, less convenient or the same as it is today?”

2) “For your preferences, was the selection of liquor products two years ago better, worse or the about same as it is today?”

3) “Were the prices of liquor products that you purchased two years ago higher, lower or about same as they are today?”
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Same</th>
<th>Less/smaller</th>
<th>More/larger</th>
<th>P²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchase travel distance</strong></td>
<td>1,187</td>
<td>604</td>
<td>289</td>
<td>294</td>
<td>0.302</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50.3% (46.5%, 54.1%)</td>
<td>26.2% (23.0%, 29.7%)</td>
<td>23.5% (20.5%, 26.7%)</td>
<td></td>
</tr>
<tr>
<td><strong>Spirits quality</strong></td>
<td>872</td>
<td>655</td>
<td>133</td>
<td>84</td>
<td>0.128</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75.6% (71.7%, 79.2%)</td>
<td>13.8% (11.2%, 16.9%)</td>
<td>10.5% (8.1%, 13.7%)</td>
<td></td>
</tr>
<tr>
<td><strong>Purchase frequency</strong></td>
<td>1,193</td>
<td>816</td>
<td>187</td>
<td>190</td>
<td>0.142</td>
</tr>
<tr>
<td></td>
<td></td>
<td>64.7% (61.0%, 68.3%)</td>
<td>19.3% (16.4%, 22.6%)</td>
<td>16.0% (13.5%, 18.8%)</td>
<td></td>
</tr>
<tr>
<td><strong>Purchase size of bottle</strong></td>
<td>1,030</td>
<td>817</td>
<td>104</td>
<td>109</td>
<td>0.584</td>
</tr>
<tr>
<td></td>
<td></td>
<td>79.0% (75.5%, 82.1%)</td>
<td>10.0% (7.8%, 12.7%)</td>
<td>11.0% (8.8%, 13.8%)</td>
<td></td>
</tr>
</tbody>
</table>

¹ Unweighted Ns and weighted % with 95% CIs
² Tests of equality of weighted proportions between the Less/smaller and More/Larger groups
• Young people (18-29) were more likely to reduce travel distance rather than increase (40% versus 19%), in comparison to those 50+, among whom 19% reduced travel distance versus 26% increasing. Those 50+ were also more likely than the younger group to keep travelling the same distance (55% versus 41%).

• Marital status, rather than income, was found to be significantly associated with change in spirits quality, with singles more likely to purchase spirits with lower quality (22%) compared to married (12%) and separate/divorce/widowed (10%).
Table 4. Self-reported spirits purchasing experience before privatization compared to current at interview

<table>
<thead>
<tr>
<th></th>
<th>Same before and after privatization</th>
<th>Worse (Less/worse/higher) before privatization</th>
<th>Better (More/better/lower) before privatization</th>
<th>P¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience of purchase</td>
<td>51.7%</td>
<td>32.9%</td>
<td>15.4%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Selection of spirits</td>
<td>62.1%</td>
<td>14.6%</td>
<td>23.4%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Price of spirits</td>
<td>28.7%</td>
<td>12.5%</td>
<td>58.9%</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

¹Tests of equality of weighted proportions between the Worse and Better groups
<table>
<thead>
<tr>
<th>Store Type</th>
<th>N</th>
<th>Travel distance</th>
<th>Spirits quality</th>
<th>Purchase frequency</th>
<th>Bottle size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Same</td>
<td>Shorter</td>
<td>Longer</td>
<td>Same</td>
</tr>
<tr>
<td>Liquor Super</td>
<td>106</td>
<td>32.2%</td>
<td>26.1%</td>
<td>41.7%</td>
<td>70.7%</td>
</tr>
<tr>
<td>Liquor Store</td>
<td>72</td>
<td>67.6%</td>
<td>13.4%</td>
<td>19.0%</td>
<td>71.9%</td>
</tr>
<tr>
<td>Grocery</td>
<td>531</td>
<td>54.4%</td>
<td>34.2%</td>
<td>11.4%</td>
<td>78.7%</td>
</tr>
<tr>
<td>Drug Store</td>
<td>35</td>
<td>55.4%</td>
<td>33.7%</td>
<td>11.0%</td>
<td>76.0%</td>
</tr>
<tr>
<td>Department</td>
<td>207</td>
<td>48.1%</td>
<td>30.4%</td>
<td>21.6%</td>
<td>77.4%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>171</td>
<td>37.5%</td>
<td>12.5%</td>
<td>50.0%</td>
<td>62.0%</td>
</tr>
<tr>
<td>Border State</td>
<td>25</td>
<td>38.8%</td>
<td>10.0%</td>
<td>51.2%</td>
<td>87.6%</td>
</tr>
<tr>
<td>Other</td>
<td>83</td>
<td>43.4%</td>
<td>27.1%</td>
<td>29.5%</td>
<td>69.0%</td>
</tr>
<tr>
<td><strong>P-value</strong></td>
<td></td>
<td>&lt;0.001</td>
<td>0.006</td>
<td>0.119</td>
<td>0.052</td>
</tr>
</tbody>
</table>

Table 3. Percentage change in spirits purchase characteristics pre- and post-privatization by current store type.
• Shorter travel time to grocery and drug stores.
• Longer travel times to liquor superstores, wholesale and cross border.
• Higher quality at liquor superstores.
• Lower quality and wholesale, drug and grocery.
• Generally less frequent purchasing especially at liquor superstores and cross border.
• Larger bottle size at wholesale and other.
CONCLUSIONS

• Washington customers found the government controlled stores to be less convenient than the privatized system but though that prices were lower and the selection was better on average.

• Surprisingly, travel times did not change but a quarter reported shorter travel and a quarter chose longer travel likely to find better selections and lower prices in liquor superstores, wholesale and cross-border government controlled stores.
CONCLUSIONS

- Perhaps surprisingly, there was a tendency toward lower quality and less frequent purchasing after privatization.

- For Washington stores, the most convenient types, drug, grocery and small liquor stores, are those with the highest prices and drug and grocery have small selections.

- Those with the lowest prices, liquor superstores and wholesale, are the least convenient.

- This situation may have mitigated the impact of greatly increased spirits outlets along with the general rise in prices.