Olive oil blind tasting experiment

EEp 142, Spring 2009, Villas-Boas
Olive Oil Extra Virgin Certification

• American olive oil consumption has been growing
• no regulation of olive oil labels in the US
• key law effective January 2009 in California requires that olive oil sold in the state must be labeled according to international olive oil standards.
• Several other states are on this same path, and federal regulation may not be far off.
• How might giving the coveted term “Extra Virgin” regulatory bite affect olive oil markets? (Gustafson and Lybbert, 2009).
• In the context of asymmetric information (we will go back to this case and above paper when we cover this in class later in the semester.
• Right now focus on product differentiation
Olive Oil Extra Virgin Certification

• Do consumers taste extra virgin certified olive oil attribute in a blind tasting setting?

• What is the willingness to pay for olive oil they prefer relative to an alternative, in a blind tasting setting
Experiment

• In a classroom offer two olive oil bottles where the brand and labels are hidden, Bottle A and Bottle B, to be tasted by dipping bread in two separate bowls.
• Both brands claimed to be extra virgin and both are US brands, and only one was certified.
• Fill out a simple questionnaire
  – Do you usually consume olive oil? Y/N
  – Which brand do you prefer  A / B
  – Which brand is Extra Virgin  A / B
  – How much extra would you pay for preferred brand? ___
Experimental Design

- Number of students enrolled were 95
- Sample of students who participated equals 59
- Three more subjects tasted after class
- Total sample size equals 62
- Brand B was the Extra Virgin one
Results – data summary stats

- 73% consume usually olive oil
- 48% prefer A, so 52% prefer B
- Remember B is the EV
- 40% think A was extra virgin EV

<table>
<thead>
<tr>
<th></th>
<th>Usual no</th>
<th>Usual yes</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV=B</td>
<td>13</td>
<td>24</td>
<td>37</td>
</tr>
<tr>
<td>EV=A</td>
<td>4</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>45</td>
<td>62</td>
</tr>
</tbody>
</table>
Results – data summary stats

- 48% prefer A
- note B is the EV
- Majority identified EV=B, 60%
- And 24 of those 37 are usual consumers
- Basically tied on brand preference

<table>
<thead>
<tr>
<th></th>
<th>EV=B</th>
<th>EV=A</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pref B</td>
<td>27</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>Pref A</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>25</td>
<td>62</td>
</tr>
</tbody>
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freqs of wtp for preferred brand relative to other brand

price premium

dollar per bottle wtp for preferred brand

likeB & EV=B
like A & EV=A
Willingness to pay (WTP) for preferred brand

<table>
<thead>
<tr>
<th></th>
<th>Usual</th>
<th>not usual</th>
<th>pooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dep var WTP in $ dollars</td>
<td>Only usual consumers</td>
<td>Not usual cons only</td>
<td>All respondents</td>
</tr>
<tr>
<td>constant</td>
<td>2.9** (0.62)</td>
<td>8** (1.66)</td>
<td>3.75** (0.64)</td>
</tr>
<tr>
<td>Pref B</td>
<td>-1.5 not sign</td>
<td>-7* (3.32)</td>
<td>-2.5 not sign</td>
</tr>
<tr>
<td>PrefB and Think EV=B</td>
<td>1.9 not sign</td>
<td>7.8* (3.82)</td>
<td>2.8* (1.7)</td>
</tr>
<tr>
<td>R squared</td>
<td>0.03</td>
<td>0.39</td>
<td>0.04</td>
</tr>
<tr>
<td>N obs</td>
<td>42</td>
<td>20</td>
<td>62</td>
</tr>
</tbody>
</table>