

PLCB Pricing Study II - Methodology and Results Summary
Bureau of Market and Store Analytics

Summary of Findings

When Pennsylvania was compared to six surrounding states and the NYC Metro area:

1. In the wine category, Pennsylvania performed best against, Ohio and West Virginia. Pennsylvania had better prices on wine more than 52.08% of the time against these two states.
2. In the spirits category, Pennsylvania performed best against, Virginia, New Jersey, Ohio and NYC Metro. Pennsylvania had better prices on spirits more than 66.67% of the time against these four.

Extraction

The top 50 items for Pennsylvania, in both wine and spirits, were extracted from the Oracle BI system. A date range of rolling 12 months from May 2011 was used. Average price was calculated for each item. This was the dollar sales amount (non-licensee) divided by sales quantity.

Data Collection

Using the top 50 items in both wine and spirits from the Pennsylvania Liquor Control Board (PLCB) data, the Nielsen Company collected data on these 100 items from surrounding states. The states were Delaware, Maryland, New Jersey, Ohio, Virginia and West Virginia. Nielsen also provided data from the New York City Metro Area. This does not include data from upstate New York. Data collection took place for 13 weeks and ended on 5/28/2011.

Sales data was collected from drug stores, wholesale clubs, liquor, grocery stores and channels; summarized sets of stores. Nielsen provided the average selling price for each item. Spirits data from Virginia was obtained via request of the PLCB to the Virginia ABC.

Data Analysis

Records provided from Nielsen and the Virginia ABC were merged into one document, and then separated by wine and spirits. Table 1 shows details for wine and Table 2 shows the details for spirits. The following calculation was performed to measure the lowest price:

$$\text{Lowest Price} = \text{PA Average Price} - \text{Average Price of Other State}$$

Negative numbers are shown in light red, which indicates the PLCB had a lower price.

After the lowest price was calculated a count was conducted by state to find the number of items PA had the lowest price and the number of items available in the state. The percentage of Pennsylvania best prices were calculated by identifying the number of items lower in

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Pennsylvania and dividing by the number of items available, based on Nielsen data, in the competing state. The calculation is as follows:

$$\% \text{ of PA Best Price} = \# \text{ of PA Lowest} / \# \text{ of Items Available}$$

Finally, the difference between percent of PA Best Price was compared. This was done by subtracting the percent of PA Best Price from this study from the percent of PA Best Price from the first study. This number was generated only to provide some context between the two pricing studies. Please note, not all items were in both studies.

Data Inconsistencies

In the process of this study, three inconsistencies were identified between Nielsen and PLCB data. An explanation on each is provided.

1. There were three items not available in Nielsen's database. These items were all Jacquin's Vodka (PA Codes, 7590, 8922, 5586). Two other items made by Jacquin's were available for comparison (PA Codes, 5493, 4446).
2. Nielsen did not have Hazlitt 1852 in 1.5L (PA Code, 5736). In order to allow for a comparison, Nielsen provided data on the 750mL size for this item. Standard calculations were performed on this item and it has been highlighted in light green in Table 1. In the final results, this would shift the percent of PA Best Price difference only slightly (DE, +0.12%, MD, +0.20%).
3. Nielsen collects data based on the original UPC code they have on record. Therefore Nielsen aligned product name and size to account for any items with updated UPC codes. The items which were matched by Nielsen are indicated with italicized and underlined UPC fields.

Each of these inconsistencies should be considered when comparing these items.

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Results

Wine - % of PA Best Price (# of PA Lowest Price/# of Items Available in State)

	DE	MD	NJ	NYC Metro	OH	VA	WV
# of PA Lowest	3	5	19	13	25	15	25
# of Items Available in State	50	50	49	48	47	47	48
% of PA Best Price	6.00%	10.00%	38.78%	27.08%	53.19%	31.91%	52.08%
% of PA Best Price (Study I)	14.29%	41.67%	44.90%	32.65%	61.70%	47.92%	60.00%
Difference (Study I - Study II)	-8.29%	-31.67%	-6.12%	-5.57%	-8.51%	-16.00%	-7.92%

Spirits - % of PA Best Price (# of PA Lowest Price/# of Items Available in State)

	DE	MD	NJ	NYC Metro	OH	VA	WV
# of PA Lowest	8	6	28	24	23	31	15
# of Items Available in State	34	41	38	36	32	39	40
% of PA Best Price	23.53%	14.63%	73.68%	66.67%	71.88%	79.49%	37.50%
% of PA Best Price (Study I)	14.63%	31.82%	62.79%	69.77%	67.50%	79.07%	43.18%
Difference (Study I - Study II)	8.90%	-17.18%	10.89%	-3.10%	4.38%	0.42%	-5.68%