



# WINE SALES IN CONNECTICUT GROCERY STORES: CONSUMER PREFERENCES, ECONOMIC IMPACTS, AND REVIEW OF OUTCOMES FROM OTHER REGIONS

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## PREPARED FOR

Connecticut Food  
Association

## PREPARED BY

The Connecticut Center  
for Economic Analysis

The Zwick Center for  
Food and Resource  
Policy

DEPARTMENT OF AGRICULTURAL  
AND RESOURCE ECONOMICS  
1376 STORRS ROAD, UNIT 4021,  
STORRS, CT 06269-4021



**UConn** | COLLEGE OF AGRICULTURE,  
HEALTH AND NATURAL RESOURCES

ZWICK CENTER FOR FOOD AND RESOURCE POLICY

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## Study Overview

The Connecticut Food Association contracted with the University of Connecticut's Center for Economic Analysis (CCEA) and Zwick Center for Food and Resource Policy to conduct a comprehensive study to investigate economic and social impacts of a change in State legislation to allow wine to be sold in Connecticut grocery stores. The study included (1) a survey of Connecticut residents' preferences and habits related to shopping for food and wine, for buying alcohol in general, and for wine sales in grocery stores; and (2) an economic impact assessment based on the REMI model to estimate changes in employment and fiscal impacts using a base model and a follow-up refined by including consumer behaviors found in the survey results. This report describes study methods, main findings, and includes appendices with a survey questionnaire and other details related to methods. The findings of this report reflect the views solely of the authors, and do not represent the views of the University of Connecticut or of the Connecticut State University System.

## Project Team (in alphabetical order)

**Dr. Fred V. Carstensen** is Professor in the Department of Finance, School of Business, University of Connecticut and Director of the Connecticut Center for Economics Analysis (CCEA). His primary research has focused on transnational enterprise, entrepreneurship, and the political economy of capitalism; his scholarship has contributed to work on Russian, British, Mexican, and American economic and business history. As Director of CCEA, he has overseen more than 200 economic impact studies for a host of clients, including the University itself, executive and legislative agencies of Connecticut, development authorities, foundations, and businesses. Prof. Carstensen graduated with Honors from the University of Wisconsin in 1966 and completed his doctorate at Yale University in 1976, and has previously taught at the University of Chicago and at the University of Virginia.

**Dr. Cristina Connolly** is an Assistant Professor in the Department of Agricultural and Resource Economics at the University of Connecticut, with a partial appointment in the Department of Extension. She received her Ph.D. in Agricultural, Environmental and Development Economics from the Ohio State University. Her research and teaching activities focus on local and regional food systems, and her work has been published in outlets such as the *Agricultural and Resource Economics Review*, *American*

**Dr. Marcello Graziano** is Associate Professor in the Department of Management and International Business at Southern Connecticut State University and the Associate Director of CCEA at the University of Connecticut. Marcello is an economic geographer, with a specialization in regional economics and energy geography. He has conducted several studies analyzing the effects of policy and technological changes for state (e.g. CT OEC), federal (e.g. U.S. DoE), and private companies (e.g. Boeing), and his research has been published on several impactful journals including *Nature Energy*, the *Journal of Economic Geography*, and *Regional Studies*. Marcello holds a B.Sc. in Foreign Trade, and a M.Sc. in International Economics (both from the University of Turin), and a PhD in Geography from the University of Connecticut.

**Peter Gunther** is Senior Research Fellow at the Connecticut Center for Economic Analysis. His work included economic impacts and benefit cost analyses include scaling of offshore wind developments (Vinlands and development of an offshore cluster), and, increased electricity demand from accelerated adoption of electric vehicles with and without peak pricing by Connecticut census districts including differential timing of required capital appropriations (Regional Economic Model Inc's. seminars). In previous positions, Peter instigated policies that have shaped Canada and Sudan. For Atomic Energy of Canada, Peter's impact and benefit cost analyses covered enhanced exports of electricity from Canada to the United States covering all generating sources. He holds a BA (Hon.) 1964 from the University of Western Ontario, and an MA Political Science and Economics 1965 and a Master in Social Sciences 1966 both from University of Toronto.

**Dr. Ethan Grumstrup** is an Assistant Research Professor in the Department of Agricultural and Natural Resource Economics at the University of Connecticut. Ethan is a regional economist specializing in applied econometrics. His research has focused on designing a theoretical economic model which incorporated sub-annual variation of water availability into the production decisions of agriculture producers to determine the effect on welfare of earlier snowmelt in snowmelt dependent water basins. This work was presented at the 2021 Agricultural and Applied Economics Association conference. Ethan holds a B.S. in Economics, a M.A. in Economics, and a Ph.D. in Economics all from the University of Nevada.

**Alyssa McDonnell** is a Research Assistant and a PhD candidate in the Department of Agricultural & Resource Economics at the University of Connecticut. She holds a B.A. in Political Science, and a B.S. in Environmental and Natural Resource Economics both from the University of Rhode Island (2018), and a M.A. in Applied and Resource Economics (2021) from the University of Connecticut.

**Dr. Kimberly Rollins** is Professor and Department Head for the Department of Agricultural and Resource Economics and Director of the Zwick Center for Food and Resource Policy, at the University of Connecticut. Rollins is an economist with 30 years of experience that includes economics and policy research and applied work with the private sector, utilities, state and federal government agencies in the U.S and in Canada, Aboriginal groups, industry groups, and non-profits. Rollins is nationally and internationally recognized for her work, much of which is focused on strategies for regional development and growth where natural resources and environmental assets are important drivers. Her research has been published in a variety of publications, which include the American Journal of Agricultural Economics, Environmental and Resource Economics, Journal of Environmental Economics and Management, Land Economics, Annals of Regional Science, Canadian Journal of Agricultural Economics.

## Executive Summary

Overall findings from this study strongly suggest that a change in Connecticut legislation to permit wine sales in grocery stores is a no-cost, voter-supported measure that would greatly increase convenience without harming current incumbents. Over 80% of Connecticut households support wine sales in Connecticut grocery stores. The economic impact analysis indicates no negative impact on any retail sector, consistent with published evidence from other states that introduced wine sales in grocery stores.

Our survey asked a representative sample of Connecticut residents over age 21 about their habits and preferences for buying food and alcohol for home consumption. Consumers primarily purchase alcohol at liquor stores, patronizing grocery stores (which currently sell beer) for this purpose at low frequencies. Almost all (98%) respondents shop for food in grocery stores at least once a month. Of a variety of store attributes, respondents state that they most value cleanliness and safety in their retail outlets, with this preference more prevalent in grocery stores over liquor stores. Most respondents shop at the grocery and liquor stores closest to their home, though they are more willing to travel further distances for a preferred food store, rather than for a liquor store.

When asked their opinions about allowing wine sales in Connecticut, over 80% of Connecticut households support wine being sold in the State's grocery stores, with just under 6% saying that they did not support this. Most respondents stated that wine sales in grocery stores would increase convenience and would result in few negative impacts. About half of the survey respondents said that the sale of wine in grocery stores would likely have minimal impact on their own overall alcohol purchasing habits.

The survey asked respondents about their experience and views regarding wines produced in Connecticut. Almost 50% had tried Connecticut-produced wines, with about 75% of these trying them directly at the wineries. About 35% and 33% had them at friends' homes or at restaurants, while only 25% bought them at a store. Even though under half of Connecticut consumers have tried locally produced wines, of those who had, the vast majority of these felt that they are appropriately priced, and of good quality, and are difficult to find in stores. Clearly, an intriguing potential exists for grocery stores to introduce consumers to local wines and producers.

In terms of employment impacts, under the REMI Base scenario, impacts of opening wine sales in grocery stores are limited but positive overall, with an average of 7 Full Time Equivalent jobs created and maintained in 2023-2080. The modelling approach for estimating future economic impacts was chosen to be conservative, following the opening of wine sales to grocery stores in Ontario Canada, a region with similar food and alcohol consumption patterns relative to Connecticut, but with stricter and more costly regulations related to wine sales in grocery stores, relative to those in U.S. states. Therefore, the mild net employment and fiscal impacts we report for Connecticut are likely a conservative lower bound estimate on positive impacts. Based on survey results regarding increased purchases of Connecticut wine, positive economic impacts are larger, and distributed throughout the agricultural and light manufacturing sectors.

Overall, the study finds overwhelming evidence to support robust demand with consumer preferences that signal a market large enough to accommodate additional outlets without hurting existing vendors.



## Overview

The first part of this report presents the survey methodology and main results describing preferences of Connecticut consumers about liquor purchases, their views on changing current regulations to allow sales of wine and mead in grocery stores, and how they would anticipate modifying their purchasing behaviors should grocery stores be permitted to sell wine and mead. The second part describes the methodology used for and results of an economic impact analysis of allowing the sale of wine and mead in grocery stores in Connecticut.

## Part 1: Survey of Connecticut Consumers

### 1. Survey Methodology

#### 1.1 Questionnaire Design

The University of Connecticut's Zwick Center for Food and Resource Policy designed and implemented the survey of Connecticut residents as an on-line questionnaire using Qualtrics, with invitations sent by first class mail. The appendix to this report includes a print version of the questionnaire and question-by-question results. The questionnaire was designed in three sections. The first section asks respondents about their preferences and experiences shopping for food, including where they shop, what they look for in a grocery store, responses to rising prices, and questions about food insecurity. This section provides a baseline for understanding current food shopping habits. We next asked respondents about their preferences for purchasing alcohol. This section was split into two components. The first asked about individual preferences for purchasing alcohol with questions using the same wording and formatting as the previous section asking about food shopping preferences. Only respondents who indicated they had purchased alcohol in the past year or intended to purchase alcohol in the future received this component. All respondents received the second component for this section, which asked about preferences regarding where alcohol should be sold. The questionnaire ended with respondent demographics.

The questionnaire was developed using feedback from several rounds of focus groups with print versions, followed by draft on-line versions sent to a sub-sample of Connecticut residents. Their questions and comments about the survey instrument were documented and changes were made accordingly.

#### 1.2 Sample Selection

We purchased a list of 10,000 named mail addresses from DirectMail.com. The list was chosen based on demographics to match the general population characteristics of Connecticut residents. We used first class mail to send the letter of invitation, on University of Connecticut letterhead. This letter is included in the appendix. The letter invited the recipient to participate in the study through an access code unique to each address, to access the on-line questionnaire. First class mail is used for surveys because pieces that cannot be delivered due to the addressee not at that address is returned to the sender (a proportion of undeliverable mail pieces are inevitably not returned). We removed the names from returned mail from

our sample and calculated response rate. Because not all undeliverable pieces of mail are returned to sender, our reported response rate is slightly lower than the actual.

DirectMail maintains information on the age, address, and sex of all their data base of addresses, which permits selection of a sample that is representative of the state of Connecticut. We included only residents that were of legal drinking age. We also oversampled addresses of individuals in Connecticut aged 21-39 as this population is less likely to respond to mailed surveys and also has a relatively greater rate of undeliverable mail than average. We also oversampled individuals that live along the border of either Massachusetts or New York, states that allow wine sales in grocery stores, so that we might be able to determine whether proximity to grocery stores selling wine was correlated with these residents shopping in stores in those states, or with attitudes about wine sales in grocery stores.

### 1.3 Survey Dissemination

The Zwick Center for Food and Resource Policy sent out 2 waves of invitations to participate in the survey, each to 5,000 recipients. The first wave of 5,000 surveys was sent out mid-September 2022. The second wave of 5,000 surveys was sent out in early October 2022. The survey was closed for responses November 30, 2022. No reminder letters or postcards were sent. All letters were sent using first-class mail. Table 1 summarizes response rates.

**Table 1. Response Rates**

<b>Total Sent</b>	10,000
<b>Returned as non-deliverable *</b>	960
<b>Number of usable surveys</b>	503
<b>Response Rate</b>	5.56

\* An unknown proportion of non-delivered surveys made it to people's mailboxes and weren't returned, making this a lower bound on the rate of non-deliverables.

Survey recipients received a letter addressed specifically to them (not "current resident") inviting them to participate in the study by responding to the online survey. This letter also provided an explanation of the survey, the importance of their response, and a link to a landing web page with additional information.



## 2. Survey Results

### 2.1 Survey Sample Demographics

We begin with the demographics of our 503 respondents, and assess the representativeness of our sample by comparing our results to values from the 2020 5-year American Community Survey estimates. As noted above in the methodology, we included only residents who were at least 21 years of age. Despite oversampling the age group 21-39, we find that this group is still underrepresented: while 17% of CT residents are 20-29 years old, they make up 8% of our respondents. Conversely, 31% of CT residents are over the age of 60, while 37% of our sample is at least 60 years old. However, the majority of our respondents are between the ages of 30 and 59.

Turning to educational attainment, while 53% of our sample has at least a four-year degree, this is true of 40% of CT residents. Similarly, 35% of CT residents have no more than a high school education, but that is true for 16% of our sample. However, our proportions for those with some college or a two-year degree closely mirror those of the general population.

We find the same pattern with household income. While 15% of all CT households have an income of less than \$25,000, this is true of only 10% of our sample. We instead see that those with income from \$25,000 to \$99,999 are overrepresented, as they make up 44% of CT residents but 48% of our sample.

While surveys often suffer from an overly low rate of male respondents, our sample is evenly split between male and female consumers, and mirrors the true values found in the CT population. In terms of race, White consumers are overrepresented as they make up 82% of our sample and 75% of the population. We have slightly lower rates of Black respondents (11% sample vs. 13% in population) and much lower representation of Asian consumers (6% of population and only 3% of sample). We also undercount Hispanic residents as they make up 18% of the CT population and 11% of our respondents.

We find that slightly more of our respondents are employed relative to the general population, while we have a lower proportion of those who state they are not currently in the labor force, which includes students, and people who are retired or on disability. Nearly 12% own their own business or are otherwise self-employed.

Thus, while our sample is generally representative of the CT population, they are slightly older, better educated, have a higher income and are more likely to be employed (either full or part time). Some of these differences are to be expected as lower-income and younger residents are more likely to rent, and thus change addresses frequently. However, as our initial sample of addresses was selected to be representative of the CT population it could also indicate some degree of non-respondent bias if certain types of consumers are less likely to respond to surveys (Table 2).

We asked respondents about the industries in which they worked, as those in food-related industries such as foodservice or agriculture might have distinct opinions about grocery sales (Table 3). Over  $\frac{3}{4}$  of our respondents did not work in any of these industries, though nearly 20% were in foodservice. Of particular interest, 10% of the sample worked in either a grocery or liquor store.

**Table 2. Demographics of Survey Respondents**

	<b>n</b>	<b>%</b>	<b>2020 ACS</b>
<b>Age</b>			
21 To 29	38	8.10%	17.00%
30 To 59	258	55.01%	51.50%
60 To 69	173	36.89%	31.50%
<b>Education</b>			
High School or Less	76	16.24%	35%
Some College, No Degree	85	18.16%	17%
Occupational Certificate	23	4.91%	
2 Year Degree	38	8.12%	8%
4 Year Degree or Higher	246	52.56%	40%
<b>Total HH Income</b>			
Under \$25,000	48	10.64%	15.10%
\$25,000 to \$49,999	79	17.52%	16.90%
\$50,000 to \$99,999	139	30.82%	27.60%
\$100,000 to \$199,999	122	27.05%	27.20%
\$200,000 Or More	63	13.97%	13.20%
<b>Gender</b>			
Male	214	45.82%	48.78%
Female	245	52.46%	51.22%
Non-Binary	1	0.21%	
Prefer not to say	7	1.50%	
<b>Race</b>			
White	350	82.35%	75.00%
Black	47	11.06%	13.00%
Asian or Pacific Islander	14	3.29%	6.00%
American Indian	1	0.24%	1.00%
Other	19	4.47%	15.00%
<b>Ethnicity</b>			
Hispanic	51	10.99%	18.07%
<b>Employment Status</b>			
Employed	320	68.67%	62%
Unemployed, but looking for work	14	3.00%	4%
Not in Labor Force	132	28.33%	34%
<b>Businessowner/Self-Employed</b>	38	11.95%	

**Table 3. Respondents' Sectors of Employment**

<b>Industry</b>	<b>n</b>	<b>%</b>
Restaurants and Foodservice	84	18.06%
Agriculture	10	2.15%
Tourism or Recreation	11	2.37%
Grocery Store	44	9.46%
Liquor Store	8	1.72%
None of the above	349	75.05%

We assessed the food insecurity status of our respondents (Table 4). Three statements were taken from the USDA's 10-item Adult Food Security Survey Module and we used a time period of 30 days (i.e. were these statements true in the last 30 days). Full wording is found in Appendix 1. A household was characterized as having marginal or low food security if they selected "Often True" or "Sometimes True" for at least one statement.

**Table 4: Food Security Question Responses**

	<b>Often True</b>	<b>Sometimes True</b>	<b>Never True</b>
<b>We worried whether our food would run out</b>	70	96	317
<b>The food we bought just didn't last</b>	48	96	339
<b>Adults in our household cut the size of meals</b>	42	85	356
	<b>n</b>	<b>%</b>	
<b>Responded "Often" or "Sometimes" to at least one</b>	183	37.81%	

Respondents were asked how frequently they consumed food they prepared at home to provide an estimate for the proportion of their meals that constituted food purchased from a restaurant rather than a food store. We found that 94% of our respondents prepared at least half of their meals at home (Table 5).

**Table 5. Respondents' Meal Consumption Habits**

<b>Consumption of food prepared at home</b>	<b>n</b>	<b>%</b>
Almost All	229	48.93%
Most	152	32.48%
About Half	60	12.82%
Less Than Half	22	4.70%
Almost None	5	1.07%

Respondents were also asked about their religiosity to account for possible moral concerns about alcohol purchases. While slightly less than 20% of our sample attended religious services at least once a week, the majority selected seldom or never. These results demonstrate heterogeneity on the religiosity of respondents (Table 6).

**Table 6. Respondents' Attendance of Religious Services**

<b>Attendance of Religious Services</b>	<b>n</b>	<b>%</b>
At Least Once A Week	84	17.99%
At Least Once A Month	30	6.42%
Seldom	197	42.18%
Never	156	33.40%

We additionally controlled for the composition of respondents' households. Most households had at least two adults and one child, though there was significant heterogeneity in overall makeup and size of households (Table 7).

**Table 7. Respondents' Household Composition**

<b>Household Composition</b>	<b>1</b>	<b>2</b>	<b>3+</b>
Under 5 years old	41	25	13
5 to 12 years old	58	23	11
13 to 18 years old	52	21	3
19 to 20 years old	18	5	1
21 and over	115	275	64

## 2.2 Food Shopping Behavior

Over  $\frac{3}{4}$  of our sample shopped at grocery stores at least once a week. Less than 3% did not use grocery stores for food purchases (Table 8). Slightly more than 40% regularly shop for food at small markets, while over 30% rarely or never do so. Approximately a quarter of respondents regularly purchase food at big retail stores, followed by dollar stores then wholesale clubs. Thus, changes to grocery store offerings would impact nearly all consumers, and even more so if new policies also apply to neighborhood markets

**Table 8. Respondents' Food Purchasing Habits: Places Shopped**

	<b>At least once a week</b>	<b>At least once a month</b>	<b>Less frequently or never</b>
<b>Grocery Stores</b>	77.6%	20.0%	2.5%
<b>Small Neighborhood Food Markets</b>	43.6%	25.4%	31.0%
<b>Big Retail Stores</b>	26.5%	38.5%	35.0%
<b>Dollar Stores</b>	16.0%	22.4%	61.6%
<b>Wholesale Clubs</b>	13.5%	37.8%	48.7%

When it comes to the attributes of grocery store that consumers care about, the most important were cleanliness, availability of fresh produce and safety. Respondents were asked what attributes they value and whether these features were available at their closest grocery store. When comparing these results for the top three attributes we find consumers generally rated their grocery stores highly on cleanliness, safety and produce freshness, though a greater proportion of respondents valued these features than believed they were present. We see the largest disparities between preferred and available attributes for good prices and for treating their employees well (Table 9). Notably, respondents did not highly value their grocery stores being child friendly or running into people they know there, but believed these attributes were present in their nearest grocery stores.

**Table 9. Respondents' Priorities in the Choice of Grocery Store Location Selection**

	<i>Care about this</i>			<i>True of closest grocery store</i>		
	Yes	Depends	No	Yes	Depends	No
<b>Clean</b>	98.2%	1.2%	0.6%	91.1%	5.8%	3.1%
<b>Fresh Produce</b>	97.6%	2.0%	0.4%	82.9%	13.7%	3.4%
<b>Safe</b>	96.5%	3.1%	0.4%	90.2%	7.9%	1.9%
<b>Convenient Hours</b>	89.2%	7.5%	3.3%	94.3%	4.0%	1.7%
<b>Treats Their Employees Well</b>	87.7%	7.6%	4.7%	52.7%	10.5%	36.8%
<b>Good Prices</b>	87.3%	11.5%	1.2%	51.0%	36.2%	12.8%
<b>Variety Of Products and Brands</b>	87.0%	10.8%	2.2%	86.0%	10.9%	3.1%
<b>Easy Parking</b>	85.8%	8.3%	5.9%	91.0%	5.8%	3.2%
<b>A Convenient Location</b>	84.8%	14.4%	0.8%	96.9%	2.3%	0.8%
<b>Helpful Staff</b>	75.6%	17.4%	7.0%	69.8%	21.3%	8.9%
<b>Supports My Community</b>	69.2%	20.0%	10.8%	59.1%	10.9%	30.1%
<b>Local Foods</b>	62.3%	26.6%	11.1%	56.6%	22.1%	21.3%
<b>Ethnic and International Foods</b>	52.6%	30.4%	17.0%	62.7%	24.8%	12.5%
<b>Child Friendly</b>	36.0%	17.5%	46.6%	66.2%	11.8%	21.9%
<b>I Run into People I Know There</b>	19.9%	20.1%	60.0%	44.0%	26.6%	29.4%

Note: For "True of Closest Grocery Store" we omit those respondents that stated they "don't know" so the percentage values will sum to less than 100.

Respondents were also queried on how they would respond to inflationary price increases (Table 10). At the time of the survey the average household spent \$152 a week on groceries, though this is an underestimate as six respondents selected our maximum value of \$400. The vast majority (91%) of respondents anticipated paying more for groceries, partially reflecting their lack of intended food purchasing changes. Slightly more than half of respondents planned to buy fewer groceries, though nearly 60% anticipated purchasing different products or brands. Nearly  $\frac{1}{3}$  of consumers intended to change where they shop for groceries, though we do not know if this means a change within or between store formats. Notably, most respondents (55%) did not intend to purchase less alcohol.

**Table 10. Respondents' Food Purchasing Habits: Expenditures**

	Mean	Std. Dev	n
<b>Weekly Amount Spent on Groceries (\$)</b>	152.40	79.60	468
<b>Impact of Inflation on Food Choices</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>
Spent More on Groceries	90.4%	5.0%	4.4%
Bought Different Products/ Brands	57.9%	14.5%	27.7%
Bought Fewer Groceries	52.5%	15.5%	31.8%
Bought Less Alcohol	37.1%	9.9%	45.0%
Changed Where You Shop for Groceries	32.8%	14.1%	52.6%

## 2.3 Alcohol and Food Store Preferences

Respondents indicated that liquor was most commonly purchased for special events, followed by wine (Table 11). Nearly 60% of consumers never purchased hard seltzer, which increased to 70% for hard cider. As only 85% of respondents said that they rarely or never purchased wine, the proposed policy change could impact a very large proportion of Connecticut households.

**Table 11. Respondents' Liquor Purchasing Habits: Type and Frequency**

	At least once a week	At least once a month	Special Events	Rarely or Never
<b>Beer</b>	14.7%	30.0%	29.2%	26.2%
<b>Wine</b>	10.0%	39.5%	36.2%	14.3%
<b>Liquor</b>	7.3%	22.8%	40.3%	29.6%
<b>Hard Seltzer</b>	4.4%	11.4%	24.4%	59.8%
<b>Hard Cider</b>	0.8%	4.1%	24.0%	71.0%

In terms of purchasing locations, the most common were small liquor stores (only 13% of respondents rarely or never purchased alcohol there), followed by large liquor stores (Table 12). In fact, nearly 20% of respondents frequented small liquor stores at least once a week. By comparison, less than 4% of consumers purchased alcohol at grocery stores on a weekly basis, and 65% rarely or never did so. While a negligible number of our respondents purchased directly from breweries or wineries on a weekly basis, it was twice as common for beer as for wine. Based on these results it would appear that while most consumers shop for food at grocery stores they go elsewhere for their alcohol purchases, including beer.



**Table 12. Respondents' Liquor Purchasing Habits: Place of Purchase**

	<b>At least once a week</b>	<b>At least once a month</b>	<b>Special Events Only</b>	<b>Rarely or Never</b>
<b>Grocery Stores</b>	3.4%	17.5%	14.9%	64.2%
<b>Wholesale Clubs</b>	0.8%	9.6%	16.4%	73.1%
<b>Big Liquor Stores</b>	3.9%	21.4%	31.4%	43.3%
<b>Small Liquor Stores</b>	19.0%	36.1%	31.8%	13.0%
<b>Mail/Online</b>	0.3%	3.1%	3.9%	92.7%
<b>Breweries</b>	1.1%	7.9%	17.4%	73.6%
<b>Wineries</b>	0.6%	2.5%	19.9%	77.0%

We also compared consumer ratings of their closest grocery and liquor store (Table 13). While most respondents felt their closest grocery stores were clean and safe, only slightly more than half believed the same was true for liquor stores. The other attributes with the largest disparities were child-friendly, easy parking and supports the community. However, on all features, the nearest liquor stores were ranked lower than the grocery stores. Thus, it would appear customers may be more satisfied with their local grocery store, even if they primarily purchase alcohol in liquor stores.

**Table 13. Respondents' Liquor Purchasing Habits: Preferred Characteristics**

	<i>True of closest grocery store</i>			<i>True of closest liquor store</i>		
	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>
<b>A Convenient Location</b>	96.27%	2.28%	0.83%	67.96%	2.64%	12.15%
<b>Clean</b>	90.68%	5.80%	3.11%	54.75%	7.04%	20.95%
<b>Safe</b>	89.65%	7.87%	1.86%	56.69%	8.63%	16.73%
<b>Easy Parking</b>	88.20%	5.59%	3.11%	56.51%	6.51%	18.66%
<b>Variety Of Products/Brands</b>	85.09%	10.77%	3.11%	54.58%	8.27%	19.89%
<b>Helpful Staff</b>	67.91%	20.70%	8.70%	53.17%	5.46%	23.06%
<b>Child Friendly</b>	65.01%	11.59%	21.53%	11.62%	8.45%	61.80%
<b>Supports My Community</b>	57.35%	10.56%	29.19%	24.65%	5.46%	51.41%
<b>Sells Local Foods or Alcohol</b>	55.07%	21.53%	20.70%	27.46%	11.27%	42.96%
<b>Treats Their Employees Well</b>	50.93%	10.14%	35.61%	25.88%	3.17%	51.94%
<b>Good Prices</b>	50.52%	35.82%	12.63%	32.57%	22.89%	26.76%
<b>Run Into People I Know There</b>	43.06%	26.09%	28.78%	19.72%	16.20%	46.13%

Most consumers patronized the food and liquor stores closest to their home, though they were more willing to travel out of their way to shop for food relative to alcohol. Specifically, the average consumer traveled over 11 minutes to their preferred food store but less than 9 minutes for liquor (Table 14). This corresponds to slightly more than 3.5 miles. In terms of transportation almost all consumers drove to their preferred outlet, though twice as many walked to purchase alcohol as food.

**Table 14. Respondents' Liquor Purchasing Habits: Preferred Grocery vs. Liquor stores**

	Characteristics of Preferred Food Store			Characteristics of Preferred Liquor Store		
	Yes	Depends	No	Yes	Depends	No
<b>Closest to home</b>	66.5%	4.6%	28.9%	59.1%	6.5%	34.4%
<b>Closest to work</b>	29.7%	6.7%	57.1%	20.4%	5.6%	73.9%
<b>Go out of way to shop there</b>	33.3%	12.6%	54.0%	23.4%	12.3%	64.3%
<b>Preferred way to get there</b>						
Car	94.0%			93.53%		
Walk	2.9%			5.12%		
Bicycle	0.2%			0.00%		
Public Transportation	1.6%			0.27%		
Other	1.2%			1.08%		
	Mean	Std. Dev	n	Mean	Std. Dev	n
<b>Travel Distance (Minutes)</b>	11.34	8.15	465	8.91	6.54	363
<b>Travel Distance (Miles)</b>	3.64	2.57	463	3.53	3.60	357

## 2.4 Connecticut Produced Wine

Nearly half of our sample had tried Connecticut wines, generally at the winery itself. The next most frequent tasting location was at a friend's house, followed by restaurants (Table 15). Approximately ¼ of respondents had tried local wines at a store, suggesting the possibility of utilizing these activities to increase interest in Connecticut wine. Slightly more than half of consumers had heard of the Connecticut Wine Trail, indicating a space for increased promotion. In terms of perceptions of Connecticut wine, consumers believed they were of good quality but difficult to find in stores.

**Table 15. Views on Connecticut wine**

	n	%
<b>Tried CT Wines at ...</b>	233	49.8%
Winery	173	74.9%
Friend's House	80	34.6%
Restaurant	77	33.3%
Store	59	25.5%
<b>Familiar with CT Wine Trail</b>	242	51.7%

<b>Wines produced in CT are:</b>	Yes	Depends	No	Don't Know
Good Quality	34.8%	18.3%	4.6%	42.4%
Difficult To Find in Stores	32.1%	11.9%	7.5%	48.5%
Appropriately Priced	28.1%	18.6%	6.0%	47.3%
Good Value	26.0%	23.2%	4.5%	46.3%

## 2.5 Selling Wine in Grocery Stores

Consumers were first asked to consider the range of potential ramifications if grocery stores began to sell wine, followed by their opinion on whether it should be allowed. Respondents had predominantly positive expectations, including increased convenience and time savings (Table 16). Few consumers believed there would be negative impacts such as more alcohol abuse, drunk driving, or an increase in shoplifting. In terms of economic impacts, most respondents believed the policy change would lead to increased wine sales, with no impact on beer. While less than half believed there would be an impact on large liquor stores, 53% of respondents suggested the policy could be felt by small liquor stores. Most consumers did not anticipate changing their own behavior if wine were sold in grocery stores, with only 16% stating they would buy more wine overall, but purchase less at liquor stores.

Approximately  $\frac{1}{3}$  of our sample had previously lived in a state where wine was sold in grocery stores, which reduced to  $\frac{1}{4}$  for liquor. As we note below, this could potentially impact consumer preferences for a policy change. Respondents were also asked if they had ever purchased beer at a grocery store because wine was not available, which could reflect substitution that would occur after a policy change. Nearly 80% of respondents had never experienced this, suggesting little purchase substitution would occur at the grocery store, though this does not account for substitution between liquor and grocery stores.

**Table 16. Respondents' Views on Permitting Wine and Mead Sales in Grocery Stores**

	<b>Yes</b>	<b>Depends</b>	<b>No</b>
<b>Convenience</b>	60.9%	12.0%	27.0%
<b>More Wine Sales</b>	53.3%	15.1%	31.5%
<b>Saving Me Time</b>	51.5%	14.7%	33.8%
<b>People Learning about Local Wineries and Wines</b>	43.9%	19.3%	36.8%
<b>Make My Life Easier</b>	38.0%	16.3%	45.7%
<b>Learning About What Food Goes with Which Wines</b>	34.6%	17.7%	47.6%
<b>Minimal to No Impact on Large Liquor Stores</b>	32.6%	22.7%	44.7%
<b>Minimal to No Impact on Small Liquor Stores</b>	25.9%	21.1%	53.0%
<b>More Jobs in Grocery Stores</b>	22.7%	22.7%	54.5%
<b>Loss of Jobs in Liquor Stores</b>	18.5%	15.9%	65.5%
<b>Theft in Grocery Stores</b>	13.2%	19.7%	67.1%
<b>Alcohol Abuse</b>	12.3%	16.4%	71.3%
<b>Drunk Driving</b>	9.7%	16.6%	73.7%
<b>Irresponsible Party Behavior</b>	8.6%	15.3%	76.1%
<b>Less Beer Sales in Grocery Stores</b>	7.6%	13.7%	78.6%
<b>Less Hard Cider/ Seltzer Sales in Grocery Stores</b>	6.9%	14.9%	78.2%
<b>I Would Buy More Wine</b>	16.2%	17.1%	61.8%
<b>I Would Buy Less at My Local Liquor/Package Store</b>	15.9%	25.4%	50.9%
<b>I Would Buy Wine Instead of Beer or Hard Cider/Seltzer</b>	11.9%	13.4%	66.6%

While beer sales are currently allowed in Connecticut grocery stores, slightly less than 20% of respondents disapproved of this, which provides a baseline from which to compare our other results (Table 17). Nearly  $\frac{3}{4}$  of the sample believed wine should be sold in grocery stores, which decreased to less than half for liquor. The same pattern was observed for small food stores, though at lower rates. For instance, while 75% of consumers believed wine should be sold in small groceries, this was only true of 68% for wine and 45% for liquor. When asked specifically whether wine should be sold in CT grocery stores over 80% stated yes, which is the same percentage that supported the current policy of selling beer.

We next assess behavioral and demographic characteristics that predict consumer support for selling wine in grocery stores<sup>1</sup>. We find those who frequently shop at small food stores were less likely to support wine sales (Table 18). Only 64% of those who shop at small food stores at least once a week supported selling wine, compared to 74% of those who do not frequent small food stores. However, there was no impact for those that shop at grocery stores at least once a week. Those who tried CT wine were significantly more likely to support selling wine in CT grocery stores, as were those who purchased beer or cider at least once a week, though the same effect was not true for frequent buyers of wine or liquor. Where consumers purchase alcohol had no impact, though those who had previously lived in a state where wine was sold in grocery stores were more likely to support selling wine in groceries in CT.

**Table 17. Views Wine in Grocery Stores**

	<b>n</b>	<b>%</b>		
<b>Bought beer or hard cider/seltzer in a grocery store, but would have purchased wine instead if it were available</b>	77	21.0%		
<b>Lived in a state where wine is sold in grocery stores</b>	149	32.0%		
<b>Lived in a state where liquor is sold in grocery stores</b>	115	24.8%		
	<b>Yes</b>	<b>Depends</b>	<b>No</b>	
<b>Approve of selling beer in grocery stores</b>	81.9%	4.7%	9.4%	
<b>Approve of selling hard cider/seltzer in grocery stores</b>	77.9%	4.1%	10.3%	
<b>Approve of selling wine in grocery stores</b>	74.8%	7.7%	11.8%	
<b>Approve of selling liquor in grocery stores</b>	47.4%	11.6%	35.2%	
<b>Approve of selling beer in small food stores</b>	74.7%	5.6%	13.9%	
<b>Approve of selling hard cider/seltzer in small food stores</b>	71.3%	6.4%	15.4%	
<b>Approve of selling wine in small food stores</b>	67.5%	8.6%	18.5%	
<b>Approve of selling liquor in small food stores</b>	45.8%	10.1%	37.4%	
<b>Would you support wine being sold in CT grocery stores</b>	<b>81.7%</b>	<b>12.6%</b>	<b>5.8%</b>	

<sup>1</sup> We used a Pearson Chi-Squared analysis, where a value less than .05 denotes a significant difference in opinion between the two groups.

**Table 18. Behavioral Factors that Impact Support for Selling Wine in Grocery**

	<b>“Yes” to Selling Wine in CT Grocery</b>		
	<b>n</b>	<b>%</b>	<b>Chi-Sq</b>
<b>Shop at small food store at least once per week</b>			0.018
No	184	74.19%	
Yes	115	63.54%	
<b>Shop at grocery store at least once per week</b>			0.644
No	72	70.59%	
Yes	240	68.18%	
<b>Have tried CT wine</b>			
No	139	59.40%	0.000
Yes	184	78.97%	
<b>Buy beer at least once a week</b>			
No	273	67.74%	0.040
Yes	44	81.48%	
<b>Buy cider at least once a week</b>			
No	298	68.35%	0.005
Yes	17	100.00%	
<b>Buy wine at least once a week</b>			
No	291	68.79%	0.852
Yes	26	70.27%	
<b>Buy liquor at least once a week</b>			0.315
No	299	68.58%	
Yes	21	77.78%	
<b>Buy any alcohol at least once a week</b>			0.055
No	250	66.84%	
Yes	71	77.17%	
<b>Buy alcohol at small liquor stores at least once a week</b>			0.907
No	226	77.93%	
Yes	55	78.57%	
<b>Buy alcohol at grocery stores at least once a week</b>			0.719
No	264	79.04%	
Yes	10	83.33%	
<b>Go out of way to buy alcohol</b>			0.639
No	215	77.34%	
Yes	67	79.76%	
<b>Lived in state where wine sold in grocery stores</b>			0.008
No	206	64.98%	
Yes	115	77.18%	
<b>Allowing wine in groceries would <u>not</u> change their behavior</b>			0.373
No	169	67.87%	
Yes	152	71.70%	

**Table 19. Demographic Factors that Impact Support for Selling Wine in Grocery**

	Said “Yes” to Selling Wine in CT Grocery, and also ...		
	n	%	Chi-Sq
<b>Characterized as food insecure</b>			0.079
No	211	71.77%	
Yes	112	64.00%	
<b>More than 50% of food is prepared at home</b>			0.400
No	169	70.71%	
Yes	153	67.11%	
<b>Male</b>			0.378
No	164	67.21%	
Yes	152	71.03%	
<b>Aged 21-29</b>			0.357
No	294	68.37%	
Yes	28	75.68%	
<b>Aged 60+</b>			0.060
No	205	72.18%	
Yes	117	63.93%	
<b>White</b>			0.003
No	41	56.16%	
Yes	258	73.71%	
<b>Black</b>			0.187
No	271	71.69%	
Yes	28	62.22%	
<b>Hispanic</b>			0.008
No	292	71.05%	
Yes	27	52.94%	
<b>Income greater than \$100,000</b>			0.000
No	160	60.61%	
Yes	163	79.51%	
<b>HH with children</b>			0.853
No	202	69.18%	
Yes	121	68.36%	
<b>Attend religious services at least once a week</b>			0.000
No	278	72.77%	
Yes	43	51.81%	
<b>Employed full time</b>			0.046
No	129	63.86%	
Yes	190	72.52%	
<b>Work in foodservice</b>			0.003
No	250	65.79%	
Yes	69	82.14%	
<b>Work in grocery industry</b>			0.200
No	285	67.86%	
Yes	34	77.27%	
<b>Work in liquor industry</b>			0.700
No	313	68.64%	
Yes			



Turning to demographics, those characterized as food insecure were less likely to support selling wine in grocery stores, as were those sixty or older (Table 19). Respondents who identified as White were significantly more likely to support wine sales in grocery stores, while those who are Hispanic were less so. Respondents with income greater than \$100,000 were also more likely to believe wine should be sold in grocery stores, while the opposite was true for those who attended religious services regularly (at least once a week). Working in the grocery industry had no impact on consumer preferences, but those who were employed full time or worked in foodservice were both more likely to support selling wine.

### 3. Takeaways

Based on our survey results, it appears that allowing wine to be sold in grocery stores could substantially improve consumer welfare with limited effects on local liquor stores. Over 80% of consumers stated that wine should be sold in Connecticut grocery stores, matching the proportion that approve of the current policy of selling beer through groceries, with just under 12% saying that they do not support wine sales in grocery stores. Those who had previously lived in a state where wine was sold in grocery stores were more likely to support grocery store wine sales in Connecticut, suggesting they did not observe negative impacts in their time there. Similarly, most respondents believed allowing wine sales in grocery stores would have positive impacts, such as improved convenience, while few expected negative impacts such as alcohol abuse or drunk driving. From a business perspective, while approximately 50% of respondents believed there could be an effect on liquor stores, only 15% of consumers stated that they would alter their purchases at liquor stores if the policy were implemented. Additionally, while beer has long been sold in Connecticut grocery stores, consumers still patronize liquor stores as their primary outlet for purchasing alcohol<sup>2</sup>, which suggests there will be a low level of substitution away from liquor stores if wine were sold in grocery stores. As a final note, while consumers strongly supported the sale of wine in grocery stores, the same was not true of liquor. Additionally, fewer consumers supported selling wine in smaller food stores relative to grocery stores, though still more than two-thirds of the sample approved of allowing it.

There is also a potential role grocery stores can play in better promoting Connecticut produced wines. Approximately 50% of our sample had tried Connecticut wines and were familiar with the Connecticut wine trail. Additionally, most of those familiar with Connecticut wines rated them as high quality. Providing information and sampling in stores could publicize a local industry: while 25% of respondents stated they had tried Connecticut wine at a store, nearly one-third believed they were difficult to find. Additionally, over 40% of consumers identified learning more about local wine as a potential positive impact of allowing grocery store sales, suggesting interest in store-based promotions.

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<sup>2</sup> This cannot be explained solely by wine and liquor purchases as 15% of our sample buy beer on a weekly basis, but only 3.4% of respondents state they purchase alcohol in grocery stores at least once a week.

## Part II: Economic Impact Analysis

### 1. Economic Impact Analysis: Introduction

Sales of alcoholic beverages including wine in Connecticut are dominated by production external to the state. This section of the study focusses on the economic impacts of adding grocery store marketing and sales channels for wines. We model two scenarios. The first assumes no changes to how Connecticut wines are currently consumed. The second assumes an increase in Connecticut-produced wine sales through cooperative marketing. These two scenarios can be seen as ‘baseline’ and ‘best-case’, where a substitution effect occurs to importing non-Connecticut-produced wines.

Our review of previously published literature found only one jurisdiction, Ontario (Canada), in which allowing wine sales in grocery stores increased total wine sales. To that jurisdiction, CCEA adds recent results from its survey of potential Connecticut consumers and Ontario’s recent parallel experience of adding grocery store wine sales channel to beer ones in Appendix A, based on solid data. As a comparative case, Ontario offers a good comparison to Connecticut: its consumption structure is similar, with about 1/3 of all sales of liquor being wine, as slow, yet steady increase in per-capita consumption and expenditures on wines, and with the advantage of having allowed wine sales in grocery stores as of late 2016.

Another U.S. state, Tennessee, legalized the sale of wine in grocery stores in January 2019. However, the effects of this new law are mediated by the recent pandemic, which drove overall alcohol consumption up across the U.S.,<sup>3</sup> thus making it a complex task to discern the effects of the new policy. Additionally, Tennessee has a different consumption profile compared to Connecticut when it comes to liquor preferences.<sup>4,5</sup> In Tennessee, only 15% of all liquor consumption is comprised of wine, versus 26% and 30% of Connecticut and Ontario respectively,<sup>6,7</sup> while more than 40% of all consumption goes to spirits.

Bureau of Economic Economics (BEA) annual data on personal consumption in Connecticut and nationally separate annual expenditures on alcoholic beverages into on-premises and off-premises, but it disaggregates them by type of spirit only at the national level. “On-premises” sales include those with meals and beverage consumption in bars, restaurants, and at licensees, whereas “off-premises” consumption includes sales consumed elsewhere than at point of purchase primarily in homes. Alcoholic beverages sold through approved grocery channels fall into the off-premises channel. Using state

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<sup>3</sup> National Institute of Health (NIH) (2022). Alcohol sales during the COVID-19 pandemic. At <https://pubs.niaaa.nih.gov/publications/surveillance-covid-19/COVSALES.htm#top> Accessed on 12/21/2022.

<sup>4</sup> Hart, J., and Alston, J. M. (2020). Evolving consumption patterns in the U.S. alcohol market: a disaggregated spatial analysis. *Journal of Wine Economics*, 15(1): 5-41. <https://doi.org/10.1017/jwe.2019.14>

<sup>5</sup> NIH (2022), *ibid*.

<sup>6</sup> NIH (2022), *ibid*.

<sup>7</sup> Lupescu, M. (2021). The Ontario wine market. *U.S. Department of Agriculture Foreign Agricultural Service*, CA2021-0039. At <https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=The%20Ontario%20Wine%20Market%20Ottawa%20Canada%2006-22-2021> Accessed on 12/21/2022.

consumption of alcoholic beverages and national shares by type of liquor, CCEA has estimated annual Connecticut consumption of wine.

Table 20 puts Connecticut alcohol consumption into context. In 2020, growth in total alcohol consumption was constrained by COVID with on-premises consumption declining relative to 2019 and off-premises consumption rising by just enough to eek-out minuscule growth overall. Wine sales were similarly but less emphatically impacted by COVID than alcoholic beverages. With reduced constraints to contain COVID, growth in wine sales appears to have recovered in 2021 with CAGR reaching 11.118% 2019-2021 for off premise consumption of wine.

**Table 20: Connecticut Consumption of Alcoholic Beverages 2019-2021**  
(Million Current US\$)

All Alcohol	2019	2020	2021
Off Premise Consumption	1,590.80	1,800.60	1,963.90
On Premise Consumption	1,180.82	997.76	1,366.81
<b>Total Alcoholic Beverages</b>	<b>2,771.62</b>	<b>2,798.36</b>	<b>3,330.71</b>
<b>Wine</b>			
Off Premise Consumption	496.33	564.65	613.60
On Premise Consumption	155.87	131.58	185.34
<b>Total Wine</b>	<b>652.20</b>	<b>696.23</b>	<b>798.93</b>

Sources: BEA Personal Consumption for Connecticut for alcohol consumption and United States shares of wine.

Lopez et al. (2017) estimated 2017 Connecticut wine output from 78 wineries with 356 acres under cultivation to be \$85.8 million in current dollars.<sup>8</sup> Based on acres under cultivation in 2017 versus the 329 acres currently under cultivation (DOA) and inflation, CCEA estimates that Connecticut wineries' 2021 output would be \$111.3 M, or about 14% of Connecticut wine consumption. Connecticut wineries bolster domestically produced grapes by adding other US domestically shipped and/or imported grape juices. As long as 25% or more of the grape juice in a wine is from Connecticut grown grapes, the wine may be classified as a "Connecticut wine", which explains how Connecticut wineries earned as much revenue as they did from crops on 356 (2017) acres. Connecticut appellation designation, however, requires 75% of the grapes be from Connecticut. In addition, Connecticut wineries boost sales from participation in wine trials which lead to on-premise sales (wine tastings) as well as additional sales for subsequent off-premise consumption. The second section of the economic impact analysis builds on these relationships.

The survey cast light on CT consumers' preferences concerning store characteristics, potential improved convenience of having access to wine sales in clean grocery stores, and sentiments about availability and other issues concerning competitive markets generated by opening this additional sales channel. In Ontario's case, there is also an emphasis on wines which are domestically produced. The second section thus builds an additional modelling structure to observe possible impacts when off-premise channel expansions into grocery stores extend sales of domestic wines. In Ontario, opening grocery retail

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<sup>8</sup> R. Lopez

channels expanded wine off-premises sales despite mildly curbing growth in wine sales from liquor stores.<sup>9</sup> From a macro-economic and government revenue perspectives, additional sales resulting from opening grocery store channels are important; whereas, grocers are interested in incremental sales on the wines they sell.

Table 21 documents both excise taxes and sales taxes for Connecticut State coffers currently generated by alcoholic beverage sales amounting to \$316 M in 2021 with wine sales generating \$69M or 21.7% of that total. Tax revenues from wine sales increase with incremental sales through grocery store channels. Discussed later, modeling through REMI allows CCEA to also identify incremental income and revenues accruing to persons and governments inclusive of personal income taxes distributed between federal and state governments.

**Table 21: State Taxes from Direct Sale of Alcohol and Wine (Millions Current \$)**

<b>Excise Taxes</b>	<b>2020</b>	<b>2021</b>
<b>Excise Taxes</b>		
Alcoholic beverages	\$68.74	\$73.32
Wine as a subset	\$10.80	\$10.39
<b>Sales Taxes</b>		
Alcoholic beverages	\$204.28	\$243.14
Wine as a subset	\$50.82	\$58.32
<b>Total Direct Taxes</b>		
Alcoholic beverages	\$273.02	\$316.46
Wine as a subset	\$61.63	\$68.71

Sources: Excise taxes from Connecticut Department of Revenue, COMPARATIVE STATEMENT OF ALCOHOLIC BEVERAGE SALES FOR THE MONTH OF JANUARY 2021 AND JANUARY 2020 INDICATED BY REVENUES OF FEBRUARY 2021 AND FEBRUARY 2020 and parallel subsequent documents as well as sales taxes at 7.3 %, the current state sales tax rate, on CCEA estimated sales, above. The above taxes do not include either corporate profits taxes or personal income taxes on earnings from production, marketing, and sales of alcoholic beverages in Connecticut albeit REMI generates total impacts from opening grocery store channels of both these taxes.

Modelling wine making and its distribution in Connecticut within REMI is complex in that the model's current levels of manufacturing are too aggregated to contain estimates of Connecticut wine production and consumption let alone marketing among alternative channels or expected points of consumption, - on-premises and off-premises sales. The latter includes sales by publicly and privately owned wine and liquor stores, wine trail bulk sales, and, prospectively, by grocery stores. Based on the literature on price and income elasticities for alcohol consumption, data from the extant REMI base case, model v. 3.0, the first section of this paper provides two consistent estimates of on-premise and off-premise alcohol consumption from REMI's outlook to 2060. The first is based on data from the Connecticut Department of Agriculture, "CDA case", and the second a combined estimate to include wineries on the Connecticut Wine Trail "CWT" that appear to have been overlooked in the first estimate.

Currently Connecticut's Department of Agriculture, recognizes 32 wineries with 329 acres under cultivation at an average of just over 10 acres. Yet, Connecticut's largest winery claims 100 acres under cultivation.

<sup>9</sup> Pryce *et al* show that the cross-price elasticity with on premise sales is 0.05 but not statistically different from 0. The last of these can be ameliorated by grocery stores not only carrying local wines but also marketing them through advertising wine trail and co-sponsoring tastings of local wines and their pairings with foods.

*“Sharpe Hill Vineyard is Connecticut's largest and most awarded winery - having received over 225 medals in international wine competitions. Our wines have received national acclaim and the winery was featured on the cover of the "Wines across America" edition of the Wine Spectator. We planted our first vines in 1992 and the winery opened in 1997. The vineyard is planted on a 100-acre hilltop parcel, overlooking three states.”*<sup>10</sup>

The next two largest wineries with publicly available data on acreage under cultivation are Gouveia which has 140 acres of which 32 cultivate vines<sup>11</sup> and the Jones Winery, nestled among 400 acres has 12 acres of grapes.<sup>12</sup> Collectively, these top-three wineries have 144 acres under cultivation leaving a paltry 185 acres for the remaining CDA's 29 wineries at an average of 6.3 acres. Assuming the 15 wineries on the trail excluded by DoA to be of average size, (6.3 acres), Connecticut would have about another 95 acres under cultivation leading to the CWT case with 424 acres of grapes. This figure may still be low because it does not account for any wineries not participating on the wine trail. Nor does it account for any future expansion stemming from wine sales in grocery stores. In either case, Connecticut has ample land for expansion.

## 2. REMI Base

This draft outlook inclusive of on- and off-premises wine sales is based on sparse data available including completion of Zwick's survey. It relies on elasticities from the literature, share of wine sales relative to alcohol sales, and REMI expectations about both growth in real personal disposable income and future price changes. REMI's Outlook runs from 2021 to 2080.

In modelling future on- and off-premises alcohol consumption consistent with REMI's bases case, CCEA has utilized REMI base model annual estimates of real disposable personal income, consumers' price Index (CPI) and a similar price index for alcoholic beverages purchased for off-premises consumption. CCEA derives changes in the real annual price of alcoholic beverages relative to all other consumer purchases as the latter divided by the former. That series was then used to derive year over year percentage changes in the price of alcohol. Applying price and income elasticities to the percentage changes in liquor prices and real disposable income then yields percentage changes in quantities demanded. Multiplied by the price in each year, CCEA attains annual future consumption of alcohol. In this simplified approach the percentage changes in the price of alcohol are the same for both on- and off-premises consumption, albeit the elasticities are not so there is some shift in the shares over time, resulting in some shift in shares as income grows over time.

The elasticities are those from the Pryce study. That study contains elasticities by expenditure quadrant to distinguish reactions among casual drinkers and problem drinkers, which is not the direction of this paper. For that reason, CCEA utilizes middle of the road estimates - their rates for the second quadrant of consumers as summarized in Table 22.

Taking inflation into account, REMI expects the real price of alcohol to rise only gradually from \$50 per gallon in 2021<sup>13</sup> to \$50.63 in 2030, \$51.09 in 2045 and \$51.55 by 2060. Despite the relative absolute sizes of the price and income elasticities, rising real personal disposable income is more influential than

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<sup>10</sup> Sharpe Hill website.

<sup>11</sup> Gouveia website.

<sup>12</sup> [Jones Winery - Connecticut \(CT\) Wine Trail \(ctwine.com\)](http://www.ctwine.com).

<sup>13</sup> Forbes

price changes. Personal disposable income increases from \$214.0 M in 2021 to \$247.2 M in 2030, to \$327.0 M in 2045 through to \$411.0 M in 2060.

**Table 22: Price and Income Elasticities for On- and Off-Premise Consumption of Alcohol**

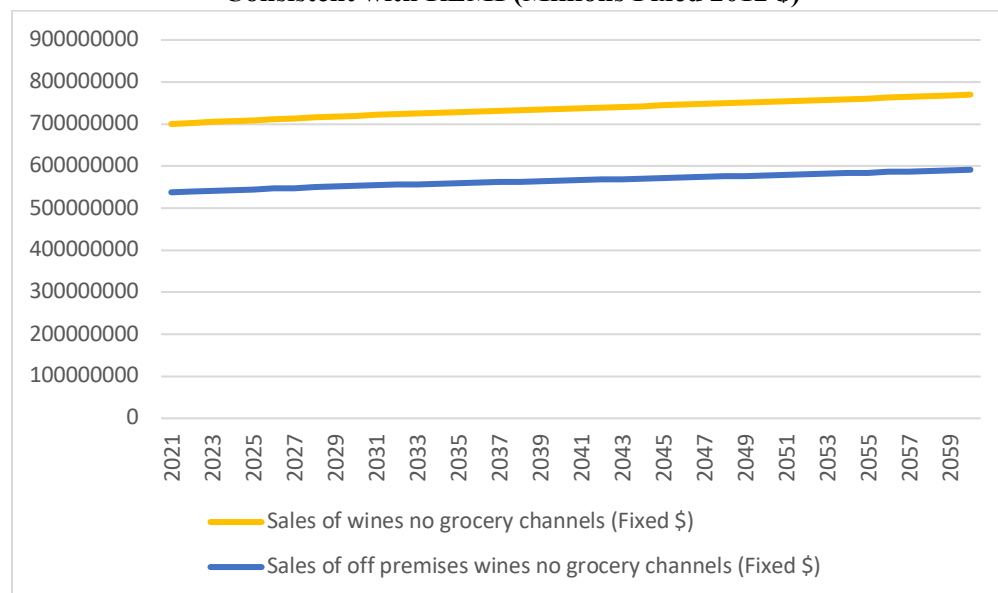
Elasticities	On-Premise Price	Off-Premise Price	Income
On-Premise	-.484	.044	.150
Off-Premise	.050	-.727	.340

Source: Pryce *et al* indicate that all own elasticities for the second quadrant, price and income, were statistically different from zero at .99 level of confidence while the cross-price elasticities were under .90 levels, suggesting only weak substitution of drinking place based on different price shifts on alcohol for on-premise and off-premise consumption.

CCEA's benchmark for total Connecticut wine consumption is \$666 million (current \$) in 2017. Growing it at the same rate as off-premises alcohol consumption from 2017 to 2021 leads<sup>14</sup> to current dollar consumption of \$700 M in real 2012 dollars. BEA's series on off-premises total alcohol consumption is expected to reach \$2 B (current \$) in 2021 with just over a quarter of that being in off-premises wine leading to a consistent estimate in real dollars of \$538 million. The difference between total wine consumption and off-premises consumption, that is on-premises consumption is then \$162 million in 2021.

CCEA utilized these benchmarks in applying the elasticities and REMI projections of prices and incomes to generate the consistent base forecast of real Connecticut on- and off-premises consumption of wine shown in Chart 1. Grocery store participation in wine sales is directed to only the off-premises availability of wines. By 2060 real dollar wine sales reach a total of \$770 million of which \$591 million are expected to be off-premises sales.

**Chart 1: Base Case Connecticut Projections of On- and Off-Premise Consumption of Wine Consistent with REMI (Millions Fixed 2012 \$)**



<sup>14</sup> BEA



In line with slow growth expectations within REMI, growth in wine consumption is quite sluggish due to marginally rising real prices and slow expected of Connecticut income growth. A reversal in either of these determinants would accelerate growth of wine consumption. Based on the literature search of elasticities, had the underlying assumptions involved higher rates of price increases on-premises than off-premises, the gaps between the two series would narrow with less being consumed on-premises and more off-premises. The reverse is also true.

### 3. Opening Grocery Store Marketing Channels

Appendix A summarizes a recent partial transition of Ontario expanding sales channels for wines into grocery stores which, as in Connecticut, were previously restricted to beer sales. That appendix shows that extended, over a four-year adjustment period, as more grocery stores come on-line, increased consumption of off-premises wine from opening grocery market channels would be 2.25%.

To apply parallel results in Connecticut, CCEA uses a four-year adjustment period with annual growth in off-premises wine sales above the base case of 0.37%, 0.74%, 0.74% and 0.4% in 2024-2018. The annual incremental growth cumulates to 2.25%. CCEA chose 2024 as the inaugural date based on the expected time for suggested legislative to change to come into law and from wineries to react. Currently CT wineries produce the equivalent of 14% of state demand for wine. Under these conditions, annual Connecticut wine consumption 2024 to 2028 swells by \$12.4 million resulting in additional demands of \$1.7 million for local wineries.

Among different jurisdictions, there is plenty of room for variations in terms of detailed regulations and timing of grocery store transitions to become marketing channels for wines. Participating groceries also have opportunities to differentiate their offerings by working with local wineries hosting tastings and pairings with food and beverages as well as cooperative advertising. Consumers will be more inclined to consume local wines if structures are in place to ensure quality and available quantities of local vintages. Such initiatives would result in local producers supplying a larger share of grocery store sales and could expand both channels of sales on new discovered consumer favorites.

The example used in this paper is modest in that it targets only 50% of the increased sales by 2028 and thereafter being comprised of Connecticut wines. By 2028, it adds \$6.2 million dollars to wine production in Connecticut. This measure ignores possibilities of local wines cutting into existing channels. Inclusive of all off-premise grocery wine sales, following Ontario market shares by its groceries by 2028, Connecticut grocers could occupy about 20% of wine sales in Connecticut worth \$143 million, yielding \$14.9 million in retail margins.

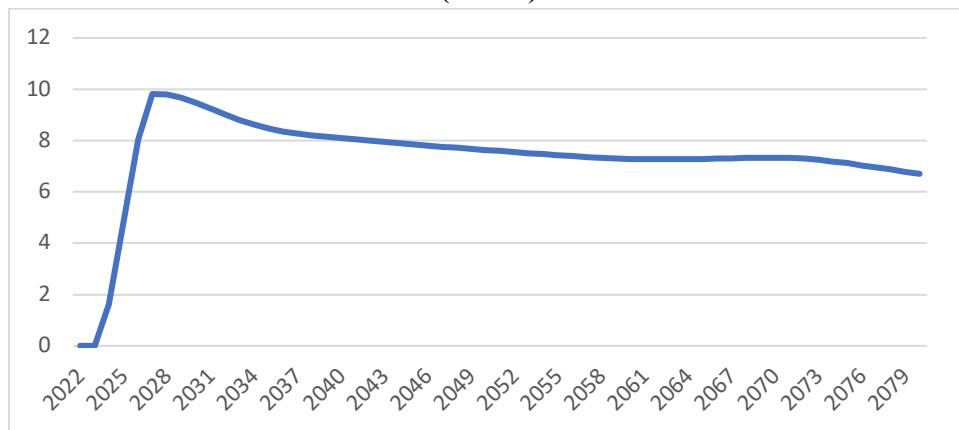
### 4. Marketing Channels and REMI

REMI is not only available for projections, as above, but also for impact analyses. In this examination of expanding wine sales by opening grocery channels for selling wines in Connecticut, CCEA parallels Ontario sales expansion by assuming that there will be a 0.37% increase in alcohol beverage sales in the first year of the expansion and 0.74% in each of the next two years over and above the REMI base case as well as another 0.4% in the fourth year. Incremental percentages are applied only to off-premises consumption of wine.

Over time, changes to real prices are determined by sticker prices relative to inflation and to income by changes to real disposable household income. No account is taken of the reduced driving costs or consumer time spent shopping by having wines readily more conveniently available in grocery stores. The former was not shown to be significant by the UConn's survey of consumers and nor was the second shown to be significant. The second scenario, "Cooperative Marketing," adds to the "Growth Only," one by taking account of the possible replacement of imported wines by locally grown ones through expanded marketing efforts such as wine tasting and courses on pairing foods and wines and bullish prominent shelf space.

The Growth Only scenario by 2028 increases wine purchases in Connecticut by \$12.4 million. Maintaining Connecticut production at 14% increases demand for Connecticut produced wine by \$1.7 million. Thereafter sales grow slowing with the rest of the economy as relative elasticities. Netting out retail (10.4%) and wholesale margins (14.7%), Connecticut winery sales improve by \$1.3 million.<sup>15</sup> Under those conditions, total annual employment impacts start at 1 in 2024 and grow to 10 in 2028 but decline after 2033 when trade-offs to domestic wines flattens and improved productivity of labor over time, cutting employment 2060 impacts to 7.

**Chart 2: Job Impacts of Opening Channels in Grocery Stores to Wine Sales  
(# Jobs)**



By 2028, total<sup>16</sup> increased employment of 10 is concentrated in retail (2), wholesale (4), and food and beverage industries (4) inclusive of wine making. Employment benefits not only directly from additional wine sales, but also through indirect and induced sales, the latter arising from spending of incremental incomes from the expanded grocery wine sales.

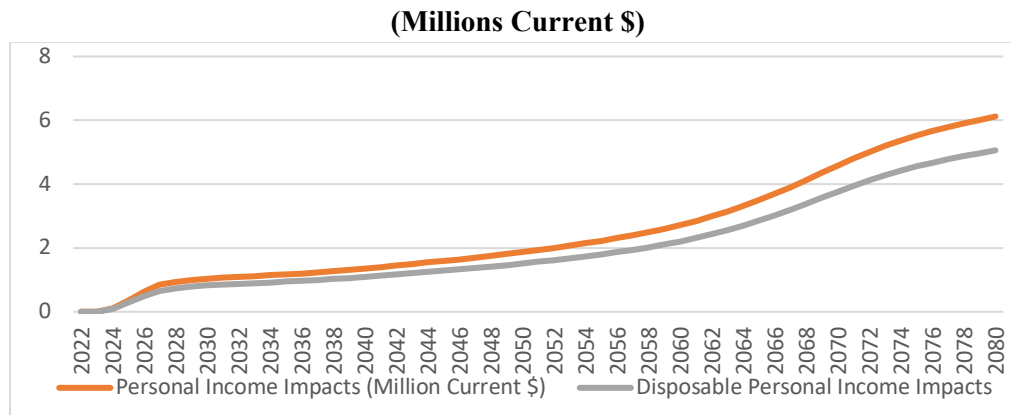
Similarly, Chart 3 illustrates that Personal Income and Disposable Personal Income in millions of current dollars are positively impacted. Lagged effects continue to impact income after 2028 at \$929,000 as does

<sup>15</sup> Bureau of Economic Analysis, Margins\_Before\_Redefinitions\_2012\_SUM.xlsx (live.com)

<sup>16</sup> Direct, indirect and induced

underlying inflation which accounts for most of the increases thereafter. By 2060, PI impacts reach \$2.7 million of which \$2.2 million is retained as increased disposable income, enriching individuals with incremental purchasing power. The difference, \$0.5 million accrues to governments - State (23.5%) and Federal (76.5%) - in personal income taxes. From 2022 to 2080, incremental personal income tax revenues discounted at 7% have a current Net Present Value (NPV) of \$3.3 million and Disposable Personal Income \$17.2 million.

**Chart 3: Personal Income and Disposable Personal Income Impact**



## 5. Grocery Stores as Marketers of Local Wines

This “Cooperative Marketing” scenario supplements the previous one. Additionally, in this scenario grocery stores differentiate their offerings by enhanced marketing of local wines. Doing so supports development by replacing foreign wines with domestic Connecticut ones. With less than 400 acres under grape cultivation, there is plenty of land in Connecticut for winery expansions. Even global warming is expanding opportunities! Much as Ontario wineries are succeeding, grocery stores, wineries, supported by government regulations are positioned to cooperatively strengthen their ties by:

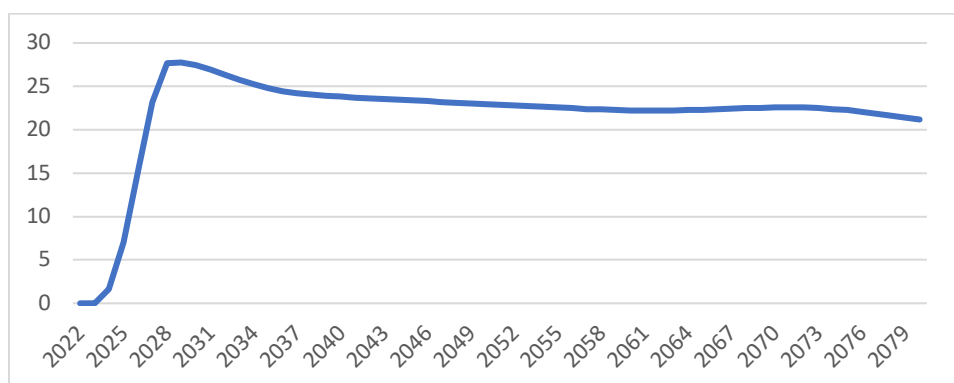
- Establishing appellation brands;
- Improving shelf space occupied by local products;
- Publicly recognizing local excellence;
- Encouraging increased wine trail traffic; and
- Cohosting tasting and pairing demonstrations with partnering wineries.

This scenario supplements the first by generating incremental growth of local wines by slowly expanding the share of locally produced wines from 14% of demand growth for wines to 50% over five years. Such a shift is modelled by leaving retail and wholesale margins the same while increasing Connecticut wine production and reducing wine flows into the state. Consistent with an increasing number of grocery stores selling wine, this process increases sales from local wineries in 2024 by \$167,472 rising to \$6,434,647 by 2028. Thereafter local winery sales rise at the same rate as total wine sales.

CCEA builds impacts of these annual sequential expansions of domestic wine purchases into the future demands for domestic wines. In essence by 2028, this case adds \$4.6 million annually to the demand for domestic wines. Weakening of those assumptions could occur with any shift back to from outside of Connecticut wines while strengthening demand for Connecticut wines would augment impacts.

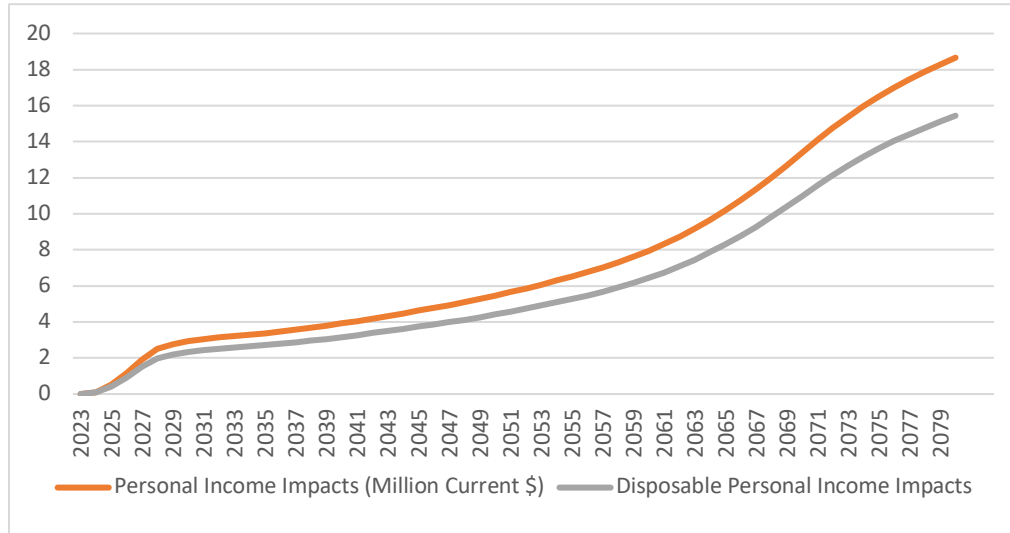
Because the growth in local wine consumption is based on only total growth in wine sales from opening grocery store channels whereas the convenience of using grocery stores also adds to grocery store sales, these adjustments to increased local winery output are a small percentage of wine sales through grocery store channels. Chart 4 illustrates positive employment arising from shifting to domestic from foreign wines.

**Chart 4: Job Impacts of Allowing Wine Sales in Grocery Stores with Cooperative Marketing  
(# of Jobs)**



In addition to wine sales growing from opening grocery store markets, cooperative marketing extends the employment growth potential for the state above REMI's base case from 2 in 2024 to 28 in 2028 declining with improved productivity to 23 in 2060. Impacts would clearly grow more if larger shares of total wine consumption shifted from foreign to local wineries sooner. By 2060, major industry job impacts include wineries (13), retail trade (2), construction (2), and wholesale trade, real estate, and professional services all at 1 with fractional improvements in other industries. Impacts would expand with greater shares of the shifts in wine being driven by growth in sales or Connecticut wines substituting for foreign sales. As with employment, income impacts also extended well above the previous scenario, as noted in Chart 5.

**Chart 5: Personal Income and Disposable Personal Income Impact  
With Cooperative Marketing (Millions Current \$)**



By 2028, PI impacts have increased to \$2.5 million of which taxpayers retain \$2 million with the difference \$0.5 million accruing to federal and Connecticut governments. By 2060 those values grow to \$7.9 million and \$6.4 million, yielding personal income taxes of \$1.5 million. At a 7% discount rate to 2024, the current increased value of these current and future government revenues has a NPV of \$10.7 million to 2080 for personal income tax increases and \$55.3 million for disposable personal income.

## 6. Fiscal Impacts

Table 23 contains NPV of fiscal impacts for the Cooperative Marketing Case over the first 20 years beginning in 2024, the usual duration of government issues debt as well as for the complete duration.

**Table 23: Incremental NPV of State and Local Government Revenues and Expenditures (Millions Current \$)**

	2044	2080
Personal Income Taxes	1.399	2.518
Sales Taxes	0.571	1.087
Property Taxes	0.437	0.732
Other Revenues (Excise taxes and licenses etc.)	1.203	2.169
NPV of Total Incremental Revenues	3.610	6.506
Additional State and Local Government Expenditures	1.912	2.959
<b>Net Revenues</b>	<b>1.698</b>	<b>3.547</b>

There is nothing sacrosanct limiting the shift to Connecticut wines as part of new industry wide sales or, for that matter, growth in Connecticut wine sales to rates achieved by Ontario. The more general

conclusion from comparing the scenarios is that for every additional \$6.2 million spent in Connecticut outlets on off-premises wines employment rises by 10 if the share of Connecticut wines produced in the State remains constant and by an additional 18 jobs if Connecticut wineries supply 50% of that growth rather than the extant 14%.

In ball park numbers, if Connecticut off-premises wine sales were to quadruple from Ontario's modest 2.25% to 9% and Connecticut wineries' share of the growth would rise from 14% to 50% employment impacts would approach 116 by 2028. Similar proportional gains would also be achieved for income impacts bringing an additional \$5.1 million in NPV to state and local government surpluses. Clearly the impacts to be achieved will depend on cooperative marketing between grocers and Connecticut wineries in making use of the suggested grocery store marketing channel.



## Appendices

### Appendix 1: Survey Questionnaire


The invitation letter sent to 10,000 addresses provided respondents with a link to the landing page (reproduced below) which explained the purpose of the survey, provided information on how to complete the survey and included a full consent form. They could then proceed directly to the survey.

[Home](#) [About](#) [People](#) [Academics](#) [Events](#) [Research](#) [Extension and Outreach](#) [Zwick Center](#)

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The Zwick Center for Food and Resource Policy / Connecticut Grocery Study

## Connecticut Food Survey



### What is Important When You Grocery Shop?

Price?  
Convenience?  
Cleanliness?  
Accessibility?  
How have recent price increases affected you?  
Do you shop in different places to cover different needs?  
Would the ability to buy wine in grocery stores affect you?  
Are you satisfied with your options?

We mailed out the survey to thousands of Connecticut residents, if you received a code in the mail you were selected to participate. Results are shared with policy-makers, representatives of the food industry, government agencies, and the public to better serve the people of our state!

[CLICK HERE TO TAKE THE SURVEY](#)

This online survey will take about 20 minutes. You can use your phone's browser or a computer. While we cannot pay everybody **you will be invited, upon completion of the survey, to enter a drawing for five \$100 visa gift cards and twenty \$50 visa gift cards**, which can be used anywhere that accepts credit cards. The odds of winning are based on the number of entries received. The raffle will be held at the completion of data collection. Your responses will not influence your chance of winning a gift card.

### Consent Agreement Form

[Full Consent Agreement](#) .pdf

### Frequently Asked Questions:

**Who will see this information?**

We will share published results with policy-makers, representatives of the food industry, government agencies and the public. Your response is important because you represent others with similar experiences and views. UConn's Zwick Center for Food and Resource Policy and the Connecticut Food Association are providing support for this study.

**Is my information protected?**

All personal information we may collect is strictly protected—no one other than our UConn team of economists will handle the data. Your name, address and other identifying information will be stripped from survey responses and not used for any other purpose.

**I have more questions!**

## Questionnaire and responses

Q2.1 Are you the primary grocery shopper for your household

	N	%
Yes	401	81.67
No	46	9.37

Q 2.2 For food shopping I go to...

	<b>Multiple times a week</b>	<b>About once a week</b>	<b>2-3 times a month</b>	<b>About once a month</b>	<b>Every few months</b>	<b>Rarely or Never</b>	<b>n</b>
Small Neighborhood Food Markets	78	123	63	54	43	100	461
Grocery Stores	122	255	75	22	4	8	486
Wholesale Clubs	13	50	80	96	68	159	426
Big Retail Stores	44	80	105	75	63	101	425
Dollar Stores	27	45	44	57	71	207	411
Other	8	22	15	13	11	143	196

Q2.4 When shopping for food, I care that the store I go to is (or has)...

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Clean	391	96	6	1		2	496
Safe	346	128	15	2			491
Close To Home	225	118	141	11	1		496
A Convenient Location	246	171	71	3		1	492
Convenient Hours	236	202	37	15		1	450
A Variety of Products & Brands	266	163	53	11			493
Good Prices	320	112	57	6			495

Child Friendly	103	70	84	124	40	60	481
Ethnic And International Foods	134	122	148	61	10	12	487
Fresh Produce	354	128	10	2			494
Local Foods	167	137	130	42	4	8	488
I Run Into People I Know There	49	48	98	201	76	16	488
Easy Parking	217	205	41	22	5	2	492
Helpful Staff	182	187	85	27	5	2	488
Supports My Community	159	181	98	29	6	18	491
Supports Local Agriculture	174	179	82	22	2	27	486
Treats Their Employees Well	250	179	37	7		16	489

Q2.6 Thinking about the grocery store closest to your home. Is it (or does it have):

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Clean	220	218	28	9	4	2	481
Safe	236	197	38	7	1	1	480
A Convenient Location	259	206	11	4			480
Convenient Hours	240	210	19	6		2	477
A Variety Of Products And Brands	197	214	52	12	2	1	478
Good Prices	133	111	173	48	11	2	478
Child Friendly	118	196	56	10	2	92	474
Ethnic And International Foods	108	188	117	27	2	30	472
Fresh Produce	186	206	65	13	2	1	473
Local Foods	117	149	104	43	5	52	470
I Run into People I Know There	76	132	126	96	24	19	473
Easy Parking	182	244	27	8	4	3	468
Helpful Staff	142	186	100	23	7	12	470
Supports My Community	127	150	51	30	5	106	469
Treats Their Employees Well	119	127	49	13	2	157	467

Q 2.8 Thinking about the store where you buy food most often...

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Closest to home	201	119	22	125	14		481
Closest to work	71	66	31	203	61	30	462
Go out of way to shop there	70	89	60	215	43	1	478

Q 2.9 How do you most often get there?

	<b>n</b>	<b>%</b>
Car	458	94.05%
Walk	14	2.87%
Bicycle	1	0.21%
Public Transportation	8	1.64%
Other	6	1.23%

3.1 We are now going to ask about your household grocery spending. How many people of each age group live in your household (including yourself)?

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>n</b>
Under 5 years old	319	41	25	4	4	5	398
5-12	301	58	23	8	1	2	393
13-18	312	52	21	2		1	388
19-20	351	18	5			1	375
21 and over	21	115	275	39	13	12	475

Q. 3.3. In the last 6 months, as overall prices have increased, have you...

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Changed Where You Shop for Groceries	101	57	68	201	52	2	481
Spent More On Groceries	286	149	24	18	3	1	481
Bought Fewer Groceries	131	120	74	127	25	1	478
Bought Different Products/ Brands	137	139	69	111	21		477
Bought Less Alcohol	94	78	46	155	54	37	464

Q 3.4 - 3.6 "For my household this statement is"...

	<b>Often True</b>	<b>Sometimes True</b>	<b>Never True</b>	<b>n</b>
In the last 30 days, we worried whether our food would run out before we got money to buy more	70	96	317	483
During the last 30 days, the food we bought just didn't last and we didn't have money to buy more.	48	96	339	483
During the last 30 days, adults in our household cut the size of meals or skipped meals because there wasn't enough money for food.	42	85	356	483

Q4.1 Have you bought alcoholic beverages in the past year (beer, hard cider or seltzer, wine, or liquor)?

	<b>n</b>	<b>%</b>
Yes	364	75.99
No	115	24.01

Q4.2 Is there a possibility you might buy alcoholic beverages in the next year (beer, hard cider or seltzer, wine, or liquor)?

	<b>n</b>	<b>%</b>
Yes	367	76.62
No	112	23.38

Q4.4 How frequently do you buy these...

	<b>Multiple times a week</b>	<b>About once a week</b>	<b>2-3 times a month</b>	<b>About once a month</b>	<b>Special Events Only</b>	<b>Rarely or Never</b>	<b>n</b>
Beer	10	44	47	63	107	96	367
Hard Seltzer	5	11	9	32	88	216	361
Hard Cider	1	2	4	11	87	257	362
Wine	7	30	59	87	134	53	370
Liquor	6	21	28	57	150	110	372

Q4.5 When shopping for alcoholic beverages in Connecticut I shop at... <pick which best describes>							
	<b>Multiple times a week</b>	<b>About once a week</b>	<b>2-3 times a month</b>	<b>About once a month</b>	<b>Special Events Only</b>	<b>Rarely or Never</b>	<b>n</b>
Grocery Stores	2	10	13	49	53	228	355
Wholesale Clubs	2	1	9	25	58	258	353
Big Liquor Stores	4	10	20	57	113	156	360
Small Liquor Stores	18	52	52	81	117	48	368
Mail/Online Purchases	1		2	9	14	329	355
Breweries	2	2	12	16	62	262	356
Wineries	1	1	4	5	71	274	356
Other	2		1	5	2	173	183

Q4.6 Do you buy alcoholic beverages in other states?			
<b>Yes, on a regular basis</b>	<b>Yes, occasionally</b>	<b>Only on vacation</b>	<b>No</b>
7	54	193	227

Q4.7 When shopping for alcoholic beverages in other states, I shop at ... <pick which best describes>								
	<b>Multiple times a week</b>	<b>About once a week</b>	<b>2-3 times a month</b>	<b>About once a month</b>	<b>A few times a year</b>	<b>Rarely</b>	<b>Never</b>	<b>n</b>
Grocery Stores	2	7	2	1	43	100	85	240
Convenience Stores	2	1			19	81	131	234
Wholesale Clubs	1	1		1	8	56	164	231
State-Run Liquor Stores	2	3	1	4	52	100	74	236
Big Liquor Stores	1	3	1	5	36	77	107	230

Small Liquor Stores	5	5	2	6	69	98	52	237
Breweries	2	1		5	41	72	112	233
Wineries	2			2	32	85	112	233
Whatever is closest	9	7	2	7	73	73	61	232
Other	1				5	15	113	134

Q4.8 Think about the small liquor/package store closest to your home (even if you don't shop there). Is it (or does it have):

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Clean	140	171	40	18	3	98	470
Safe	145	177	49	6	3	86	466
A Convenient Location	173	213	15	5	3	61	470
A Variety Of Products And Brands	132	178	47	14	3	96	470
Good Prices	77	108	130	28	2	122	467
People from my Community Shop There	102	192	29	8	2	135	468
Child Friendly	34	32	48	76	44	231	465
Sells Local Alcohol	52	104	64	27	15	202	464
I Run Into People I Know There	42	70	92	97	30	135	466
Easy Parking	110	211	37	28	11	67	464
Helpful Staff	138	164	31	12	2	117	464
Supports My Community	56	84	31	17	8	267	463
Treats Their Employees Well	68	79	18	4	1	290	460

Q4.9 Thinking about the store where you buy alcohol most often...

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>n</b>
Closest to home	106	112	24	106	21	369
Closest to work	38	35	20	195	69	357
Go out of way to shop there	26	60	45	194	42	367

Q4.10 How do you most often get there?

	<b>n</b>	<b>%</b>
Car	347	93.53%
Walk	19	5.12%
Bicycle		
Public Transportation	1	0.27%
Other	4	1.08%

Q5.1 Currently, Connecticut does not allow the sale of wine in grocery stores. This section asks about your opinions regarding the availability of alcohol in different types of stores. Even if you do not buy alcohol, we would still like to know your opinion.

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Learning About What Food Goes with which Wines	61	101	83	102	34	87	468
People Learning about Local Wineries and Wines	68	137	90	65	23	84	467
Alcohol Abuse	25	32	76	168	77	86	464
Making My Life Easier	65	112	76	119	47	47	466
Convenience	92	192	56	57	22	47	466
Irresponsible Party Behavior	21	19	71	161	93	100	465
Saving Me Time	89	150	68	70	39	48	464
Loss Of Jobs in Liquor Stores	30	56	74	121	45	138	464
More Jobs in Grocery Stores	27	78	105	97	24	131	462



Drunk Driving	21	24	77	157	80	104	463
Theft in Grocery Stores	26	35	91	108	44	158	462
Less Beer Sales in Grocery Stores	12	23	63	178	47	136	459
Less Hard Cider/ Seltzer Sales in Grocery Stores	12	20	69	170	45	147	463
More Wine Sales	60	187	70	28	18	100	463
Minimal to No Impact on Large Liquor Stores	28	123	105	56	24	127	463
Minimal to No Impact on Small Liquor Stores	26	93	97	80	40	124	460

Q5.3 If Connecticut grocery stores were allowed to sell wine...

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
I Would Buy More Wine	28	48	80	188	101	23	468
I Would Buy Wine Instead of Beer or Hard Cider/Seltzer	16	39	62	200	109	38	464
I Would Buy Less at My Local Liquor/Package Store	15	59	118	155	81	36	464
It Would Not Affect My Alcohol Buying Habits	88	124	87	72	41	49	461

Q5.4 In the past year have you ever bought beer or hard cider/seltzer in a grocery store, but would have purchased wine instead if it were available?

	<b>n</b>	<b>%</b>
Yes	77	21.04
No	285	77.87

Q5.6 Have you lived in a state where liquor is sold in grocery stores?

	<b>n</b>	<b>%</b>
Yes	115	24.78
No	349	75.22

Q5.8 Would you support wine being sold in Connecticut grocery stores?		
	<b>n</b>	<b>%</b>
Yes	313	68.64%
No	59	12.94%
Maybe	58	12.72%
I Don't Know	26	5.70%

Q5.7 Do you approve of selling...							
	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Approve of selling beer in grocery stores	162	222	22	23	21	19	469
Approve of selling hard cider/seltzer in grocery stores	150	213	19	23	25	36	466
Approve of selling wine in grocery stores	146	204	36	25	30	27	468
Approve of selling liquor in grocery stores	104	117	54	110	54	27	466
Approve of selling beer in small food stores	133	215	26	35	30	27	466
Approve of selling hard cider/seltzer in small food stores	129	204	30	39	33	32	467
Approve of selling wine in small food stores	125	189	40	44	42	25	465
Approve of selling liquor in small food stores	95	118	47	120	54	31	465
Would you support wine being sold in CT grocery stores	323	60	59	27			469

Q6.1 Have you tried any wines made in Connecticut?		
	<b>n</b>	<b>%</b>
Yes	233	49.79
No	171	36.54
Don't know	64	13.68

Q6.3 I think that wines produced in Connecticut are...

	<b>Yes!!!</b>	<b>Yes</b>	<b>Depends</b>	<b>No</b>	<b>No!!!!</b>	<b>I don't know</b>	<b>n</b>
Good Value	30	90	107	11	10	214	462
Good Quality	37	123	84	13	8	195	460
Appropriately Priced	22	108	86	16	12	219	463
Difficult To Find in Stores	44	105	55	30	5	225	464

Q6.4 Are you familiar with the "Connecticut Wine trail"?

	<b>n</b>	<b>%</b>
Yes	242	51.71
No	226	48.29

Q7.2 How old are you?

	<b>n</b>	<b>%</b>
21 to 29	38	8.10%
30 to 39	106	22.60%
40 to 49	64	13.65%
50 to 59	88	18.76%
60 to 69	95	20.26%
Over 70	78	16.63%

Q7.3 What is your highest level of education?

	<b>n</b>	<b>%</b>
Less Than High School	6	1.28%
High School Graduate/GED	70	14.96%
Some College, No Degree	85	18.16%
2 Year Degree	38	8.12%
Occupational Certification	23	4.91%
4 Year Degree	128	27.35%
Graduate Or Professional Degree	118	25.21%

Q7.4 What was your total household income, before taxes, in 2021?

	<b>n</b>	<b>%</b>
Under \$15,000	19	4.21%
\$15,000 to \$24,999	29	6.43%
\$25,000 to \$34,999	35	7.76%
\$35,000 to \$49,999	44	9.76%
\$50,000 to \$74,999	65	14.41%
\$75,000 to \$99,999	74	16.41%
\$100,000 to \$149,999	79	17.52%
\$150,000 to \$199,999	43	9.53%
\$200,000 to \$249,999	23	5.10%
\$250,000 Or More	40	8.87%

Q7.5 During a typical week, how much of the food you eat is prepared at home?

	<b>n</b>	<b>%</b>
Almost All	229	48.93%
Most	152	32.48%
About Half	60	12.82%
Less Than Half	22	4.70%
Almost None	5	1.07%

Q7.6 With what gender do you identify?

	<b>n</b>	<b>%</b>
Male	214	45.82%
Female	245	52.46%
Non-Binary	1	0.21%
Prefer not to say	7	1.50%

Q 7.7 What is your race and ethnicity? Select all that apply.

	<b>n</b>	<b>%</b>
Black or African American	47	10.13%
American Indian	1	0.22%
Asian or Pacific Islander	14	3.02%
White	350	75.43%
Hispanic	51	10.99%
Other	19	4.09%

Q7.8 What is you current employment status?

	<b>n</b>	<b>%</b>
Employed Full-Time	263	56.44%
Employed Part-Time	57	12.23%
Unemployed, But Looking for Work	14	3.00%
Unemployed, And Not Looking for Work	11	2.36%
Full-Time Student	6	1.29%
Retired	101	21.67%
Disabled	14	3.00%

Q7.9 Do you (or did you) work in any of the following industries?

	<b>n</b>	<b>%</b>
Restaurants and Foodservice	84	18.06%
Agriculture	10	2.15%
Tourism or Recreation	11	2.37%
Grocery Store	44	9.46%
Liquor Store	8	1.72%
None of the above	349	75.05%

Q7.10 Do you own your own business?

	<b>n</b>	<b>%</b>
Yes	38	11.95%
No	280	88.05%

Q7.11 Are you self-employed?

	<b>n</b>	<b>%</b>
Yes	38	11.99%
No	279	88.01%

Q7.12 Aside from weddings and funerals, how often do you attend religious services?

	<b>n</b>	<b>%</b>
More Than Once A Week	24	5.14%
Once A Week	60	12.85%
Once Or Twice A Month	30	6.42%
A Few Times A Year	79	16.92%
Seldom	118	25.27%
Never	156	33.40%

## **Appendix 2: Opening Wine and Beer Sales from Ontario Grocery Stores - Impacts of Vintner's Quality Alliance and the Liquor Control Board of Ontario.**

In 1988, Vintner's Quality Alliance (VQA) created by Ontario wineries to set out appellation regions and to establish strict production standards that became Ontario law in 1999. Following three years of study, in 2005 VQA established two appellation regions in Niagara with 10 subregions covering 75 established wineries. Two years later another appellation region was established in Prince Edward County. In 2021, there were 181 VQA wineries producing wines 100% from Ontario grapes. VQA has supported innovations in wine making including developments of Icewine, sparkling whites, and creation of a new skin fermented white wine (Orange wine) in 2017.<sup>17</sup>

To protect the VQA brand, appellations and sub-appellations, *no person shall use the following terms, descriptions and designations unless the wine is approved and the conditions set out in the regulation are satisfied:*

- *Vintners Quality Alliance*
- *VQA*
- *Ontario*
- *Niagara Peninsula*
  - *Niagara-on-the-Lake*
  - *Niagara River*
  - *Niagara Lakeshore*
  - *Four Mile Creek*
  - *St. David's Bench*
  - *Niagara Escarpment*
  - *Lincoln Lakeshore*
  - *Creek Shores*
  - *Beamsville Bench*
  - *Twenty Mile Bench*
  - *Short Hills Bench*
  - *Vinemount Ridge*
- *Lake Erie North Shore*
  - *South Islands*
- *Prince Edward County*
- *Estate Bottled*
- *Vineyard*
- *Meritage*
- *Icewine*
- *Botrytized*
- *Botrytis Affected*
- *B.A.*
- *Totally Botrytized*
- *Totally Botrytis Affected*

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<sup>17</sup> [History - Wine Country Ontario.ca](https://www.history.winecountryontario.ca)

- *T.B.A.*
- *Late Harvest Wine*
- *Select Late Harvest Wine*
- *Special Select Late Harvest Wine*
- *Vin de Curé*
- *Appassimento*
- *Blanc de Noirs*
- *Icewine Dosage*
- *Dosage of Icewine*
- *Sparkling Icewine*

*The Wine Appellation Authority certifies wines, not wineries, under the VQA brand. By registering as a member winery, you will be able to submit wines for evaluation and approval.<sup>18</sup> Only VQA certified wines are permitted to use specific, regulated label terms, including Ontario, designated appellation names and other terms such as Icewine and Late Harvest.<sup>19</sup>*

*The VQA designation ensures buyers that the wine they are purchasing has been sourced from 100% Ontario grapes, is free from concentrates, and has passed independent quality standards testing ...*

*VQA takes the risk out of purchases for consumers and mirrors our wineries' commitment to provide high quality wines for Ontario consumers."*

VQA designation assures purchasers that the whole region is held to a set of independent standards making it easier for people to try a new VQA wine. For compliant new wines within appellations, VQA designation can be a significant factor in getting started in the marketplace and becoming recognized at regional, national, and international levels.

The Liquor Control Board of Ontario (LCBO), the provincially owned largest distributor, in conjunction with wineries has developed the Ontario Wines Direct Delivery Program (DDp) program, designed to provide Ontario wineries with an alternative distribution option (via LCBO stores) for 100% Ontario-grown wines designated by single appellation or the province as a whole. The program is best suited to products that have a strong local appeal or fill a small or localized niche market. Wineries deliver approved products directly to participating stores. Aside from products involving fruits other than grapes or sake, nearly all these wines have the VQA stamp of approval.

Participating wineries support sales via in-store tastings for both customers and staff. While the intent is to increase consumer access to local appellations, more successful vintages available in sufficient quantities are carried and marketed more broadly by the LCBO.<sup>20</sup>

With rare exceptions VQA designation is essential to gain access to LCBO marketing; thereby contributing to the value of qualifying wines. During fiscal year 2019-2020, LCBO sales of

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<sup>18</sup> The certification process involves as sensory process requiring approval by a majority of five person panel of 25 well qualified tasters set out in [Microsoft Word - OWAA-VQA-TASTING-PROCESS-2022-EN1-FINAL \(1\).docx \(vqaontario.ca\)](#),

<sup>19</sup> Ibid.

<sup>20</sup> [Ontario Wine Direct Delivery Guide October 2021.pdf \(lcbo.com\)](#)



VQA wines totalled \$169.3 million, a fraction of all LCBO wine sales of \$2,235 billion and generating a smaller share of LCBO's total revenues of \$6.8 billion.

Of LCBO's total revenues, \$2.375 billion accrued as dividends to the Ontario provincial government.<sup>21</sup> In addition, the LCBO paid the government of Canada another \$582 million in HST and \$444 million in excise tax as well as municipalities \$35 million. Direct LCBO contributions to governments cumulated to \$3,435 million, more than half its pre-tax revenues.

Table A-1 indicates that in 2019-2020 there were 2,786 liquor stores and outlets in Ontario of which 1,068 were operated by the LCBO. There were another 486 winery outlets *per se* and another 68 boutiques in grocery stores.

Total wine sales in the province (including cider and wine coolers) saw an increase of 2.6 percent in volume or 5.2 million litres during the year, to more than 203 million litres. LCBO's share expanded by five basis points to 83.3 percent of total wine volumes, while advancing its share through the grocer channel by 88 basis points. Winery retail stores, including direct delivery to licensees, account for the remaining 16.7 percent of the provincial wine volume market.<sup>22</sup>

**Table A-1 Ontario Liquor Outlets FY 2019-2020 (#)**

No. Outlets	FY 2019	FY 2020	Change
LCBO	666	669	3
LCBO Convenience Outlets (LCOs)	209	369	160
Grocer*	363	439	76
Ontario Winery Retail	454	489	35
The Beer Store	450	433	-17
On-site Brewery Retail	291	320	29
On-site Distillery Retail	41	51	10
Land Border Point Duty	10	10	0
Airport Duty free	5	6	1
Total	2,489	2,786	297

\*Grocer included 69 wine boutiques in FY2020 (68 in FY2019) which are Ontario Winery Retail locations situated within a grocery store, also selling beer and cider

<sup>21</sup> LCBO, LCBO Annual Report 2019-2020. pp. 17-18.

<sup>2222</sup> Ibid p. 24.

Wine (excluding VINTAGES) remained the second-largest category (of LCBO revenues) at 23.7 percent of total net sales, despite losing 51 basis points. The category rebounded from a previous year decline to post growth of 3.7 percent, to almost \$1.6 billion in sales.

VINTAGES, (High-end wines not to be confused with VQA) at sales of \$635 million, grew by 5.3 percent over last year. With a slight decline in share of six basis points, the category represents 9.4 percent of LCBO sales. Ontario total wine sales then reach \$2.2 B nearly a third of total alcohol sales in 2020.

Beer continued to benefit from more active grocer authorizations while softer sales to TBS tempered category growth to 5.0 percent during the year. The beer category topped \$1.5 billion in sales for the first time but lost 18 basis points to 22.9 percent of total sales.<sup>23</sup>

The relative growth rates indicate that vintages outpaced both other wines and beer growth 2019-2020.

## Channel Sales

### Ontario Consumption of Alcoholic Beverages

Table A-2 captures growth by channel sales. Note that the transition to buying wines and beers in grocery stores is just underway with only minor losses in channels using licensees, beer stores and others including winery outlets, perhaps also impacted by COVID. Clients accustomed to shopping in grocery stores may also be more comfortable in LCBO convenience outlets found in smaller towns and tourism sites.

**Table A-2: Ontario Channel Sales Alcoholic Beverages (Millions CDN \$)**

Channel (\$ millions)	Share	FY2020	vs. FY2019
Home Consumer - Retail	78.4%	\$ 5,307	5.7%
Licensee	8.4%	\$ 571	-1.1%
The Beer Store	5.4%	\$ 365	-0.6%
Grocer	4.7%	\$ 320	29.7%
LCBO Convenience Outlets	2.2%	\$ 147	19.1%
Duty free	0.6%	\$ 39	8.1%
Other*	0.3%	\$ 17	-3.9%
Total	100%	\$ 6,766	5.6%

\*Other includes winery and distillery direct margins, sales to other provinces and gift card breakage income.

<sup>23</sup> Ibid P. 28

Over the last year, Ontario liquor sales rose 5.6% and those in grocery stores by 29.7% with an 21% increase in the number of grocery stores participating in the market. Home consumer retail sales (LCBO and including retail sales at wineries and boutiques not located at grocery stores), grew at a slower pace (5.7%), but still higher than total growth (5.6%). During FY2019-2020, grocer sales of alcoholic grew by \$96 million of which \$90 million was above average growth rates. At about half the sales of alcohol by all channels, that leaves growth of \$45 million in Ontario beer and wine sales attributable to opening grocer sales channels to wine sales.

For comparison purposes converting to 2022 US dollars, total Ontario alcohol sales amounted to \$5,043.6 M.

### Connecticut Consumption of Alcoholic Beverages

The following estimates are based Connecticut personal income consumption data produced by the Bureau of Economic Analysis in each of two markets:

1. Alcoholic beverages purchased for off-premises consumption; and,
2. Alcoholic beverages in CT purchased meals and beverages.

These numbers are comparable with total sales in Ontario aside from incremental sales via grocery store channels. Table A-3 contains Connecticut consumption as the sum of the two.

**Table A-3: Connecticut Consumption Alcoholic Beverages 2019-2021  
(Million Current US\$)**

All Alcohol	2019	2020	2021
<b>Off Premise Consumption</b>	1,590.80	1,800.60	1,963.90
<b>On Premise Consumption</b>	1,180.82	997.76	1,366.81
<b>Total Alcoholic Beverages</b>	2,771.62	2,798.36	3,330.71
<b>Wine</b>			
<b>Off Premise Consumption</b>	496.33	564.65	613.60
<b>On Premise Consumption</b>	155.87	131.58	185.34
<b>Total Wine</b>	652.20	696.23	798.93

Sources: BEA Personal Consumption for Connecticut for alcohol consumption and United States shares of wine.

Because all wines sold in grocery stores are for off-premise consumption, and deleting 2020 (COVID) results from projections, 2024 Connecticut wine sales are expected to reach \$702.7 million in Fixed 2020 dollars.

In current dollars, during a four-year start-up for wine sales by grocery stores, FY 2020, Ontario

alcoholic beverages expanded by 5.6%. The previously dominant marketing channel, home consumer (LCBO) stores with 78% of the market, kept pace growing at 5.7%. Grocery stores, dominated by chains, gained market share with annual growth in sales of 29.7% to boost FY 2020 market shares to 4.70% from 3.85% a year earlier. The second largest channel gaining market share was LCBO convenience stores usually located in small-town local convenience stores. With consumers becoming more familiar with purchases at other than main LCBO stores, market share of LCBO convenience stores jumped from 1.93% to 2.20%.

Remembering that beer is also available in Ontario grocery stores, licensees lost 0.61% of market share and beer stores 0.23% of market share. For those channel share losses were cushioned by overall market growth so only licensees experienced revenues shortfalls of \$6 million while beer store revenues rose by \$2 million.

CCEA attributes growth in sales of Ontario alcoholic beverages to inflation, income, price changes and expansion of sales channels into grocery stores as the residual after accounting for the other three forces. From 2019-2020, Ontario's CPI increased by 1.7% contributing reducing real dollar growth in alcohol sales from \$359 million in current dollars to \$190 million (Fixed 2012 dollars). Simultaneously, Ontario's 2020 real adjusted disposable household income rose by 8.0%, leading to an expected increase in real off-premises sale of alcoholic beverages of 3.11%, rather than the 3.84% attained before adjusting for price changes. A minor real price increase for alcoholic beverages of 1.04% dampened expected increases in real off-premises sale of alcoholic beverages to 3.10%. This leaves gains in sales of 0.74% or \$36.6 million attributable to increased 2020 grocery sales of alcohol. Because the sole additional type of alcohol being recently introduced in Ontario grocery stores is wine, most of the increase is in that class of alcoholic beverage. Extended over an adjustment period of four years as more grocery stores come online and consumers adjust, increased consumption of from opening this market channel would be 2.25% of total sales of alcoholic beverages over those years.

This methodology begs the question as to whether or not there were other possible underlying factors? The obvious response is COVID. With more people staying home, off-premise consumption could be expected to rise. But COVID and Long-COVID patients, with symptoms such as brain fog, headaches, and advanced signs of Alzheimer's, would be less inclined to drink. Thus, it is far from clear how COVID has or continues to impact alcoholic beverage consumption.