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Tennessee's Wine Industry: Consumer Perceptions, Quality Assurance Programs, and Marketing Strategies

A Summary Report

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Tennessee's Wine Industry: Consumer Perceptions, Quality Assurance Programs, and Marketing Strategies

Executive Summary

The Tennessee Wine and Grape Board and Tennessee Department of Agriculture commissioned a research study addressing consumer perceptions and value of Tennessee wines and how those perceptions vary between Tennessee residents and non-residents. The study also addressed consumer perceptions of wine quality assurance programs (QAPs) and local labeling related to Tennessee wines. Together, these objectives provide information about how consumers perceive Tennessee wines, local wines and QAPs, which can be leveraged when making future business and marketing strategies.

Internet surveys were used in September 2021 to elicit consumer purchasing behavior, perceptions, and valuations towards Tennessee wines and QAPs. A total of 1,216 U.S. consumers completed the survey, with nearly 61 percent of the sample consisting of Tennessee residents. Non-Tennessee participants were from across the U.S. with Florida, Texas, New York, Georgia and Ohio having the largest levels of participation. Non-Tennessee residents were recruited to participate because they had either recently or planned to visit Tennessee.

In general, consumers perceived local and Tennessee wines favorably but do not differentiate between local ingredients, processing/fermentation or sales locations, which implies that local terminology is often positive, but vaguely interpreted by the end consumer. There is an opportunity for the Tennessee wine industry to use this information and take actions to define their own reputation. Consistent quality and positive experiences can aid in maintaining a positive local brand image and reputation, which can benefit wine industry stakeholders throughout the state. Although participants indicated awareness of Tennessee wines and vacations, the results were lower for wine trails and clubs, meaning there is potential to build the customer base for Tennessee wines by making potential customers more aware of wine trails and clubs that are available and feature Tennessee wines.

Increased awareness in- and out-of-state could benefit the industry through access to additional markets. For instance, many participants indicated their visits to Tennessee involved visiting family/friends. If more in-state family/friends are aware of Tennessee wine offerings, a stable local market could be used to attract additional tourists through family connections. These connections also provide the opportunity to explore additional marketing avenues (e.g., restaurants, etc.) that can increase market penetration and product availability to consumers.

Beyond local and Tennessee wine perceptions, participants were asked about QAPs and how that relates to their purchasing decisions. Participants indicated they would expect to pay \$21.39 per bottle of QAP certified wine (versus an average current spending of \$14.89 per bottle of non-QAP wine). Results show that QAPs are perceived as important, could aid in growing the Tennessee wine industry, and that the source influenced its impact on purchasing behavior. In general, QAP sources from within the industry (e.g., associations, wineries) had a more positive impact on purchasing decisions than sources from outside the industry (e.g., universities, independent third-parties, government agencies). Likely this preference is related to the complexity of wine production and flavor development, meaning having a QAP from a source that is familiar with all of the dimensions involved with wine making would align better and likely understand quality better than an organization less familiar with the industry. However, the choice experiment results indicate that a university-based QAP will not impact wine choice, but wine sweetness and Tennessee origins positively influenced choice. These findings suggest that sweetness and origin have a stronger impact than a university QAP. Overall, the results indicate that using an industry-specific organization as a source for the QAP would improve its impact more so than other types of organizations but other wine features (e.g., sweetness, origin) may be more influential on choice.

The next section summarizes 15 key insights from the study, followed by a brief introduction, study methods and sample demographics, the in-depth results, a summary, and then recommendations based on the key findings.

15 Key Insights

1. Consumers purchase wine most frequently from **liquor or grocery stores** (at 8.5 times/year) followed by **restaurants** (4.8 times/year), and **on-site** at wineries/vineyards (2.5 times/year).
2. The pandemic impacted wine sales differently depending on the retailer type. On-site, liquor or grocery store, and online wine sales increased during the pandemic while restaurant wine sales decreased.
3. Sweet wines are preferred (37.6 percent sweet reds; 32.8 percent sweet whites) to dry wines (17.8 percent dry red; 11.8 percent dry white). Among Tennessee residents, this trend is amplified while among non-Tennessee residents it is suppressed.
4. Consumers who prefer dry wines spend \$6-7 more because on average they purchased one additional bottle of wine per month than those who prefer sweet wines. However, consumers who **prefer sweet wines spent \$2.31 more per bottle** when compared to individuals who prefer dry wines.
5. Consumers perceive local wines favorably but **do not differentiate** between ingredient source (fruit or juice source) and production factors (processing/fermentation or sale location) when determining if a wine is local.
6. Participants spent \$38.04 on wine during their last on-site visit to a winery, vineyard or orchard. In the past two years, **74 percent of Tennessee residents purchased a Tennessee wine**. In the past five years, **54 percent of non-Tennessee residents purchased a Tennessee wine**.
7. Participants are aware of 2.5 Tennessee wineries with most being in the eastern region, followed by the middle region, and then the western region of the state.
8. Consumers anticipated finding Tennessee wines in liquor or grocery stores, followed by on-site outlets and then in restaurants.
9. To encourage agritourism, the average optimal number of wineries in a given area to make that area a wine daytrip destination is **2.8**. Consumers indicated that the number of wineries/vineyards in an area would impact their decision to visit that area on a daytrip.
10. Quality assurance programs (QAPs) are viewed as “very” and “extremely” important to 54 percent of participants with only 6.7 percent indicating they are “not at all important”.
11. Consumers perceive **QAPs** as an indication of high ingredient quality, **high end product quality and consistency/standardization** in the end product.
12. **QAPs from industry-specific sources** positively impact purchase decisions more than QAPs from broader sources. **National wine association** and state wine association QAPs had the strongest positive impact on purchase likelihood, followed by **individual wineries and regional wine associations**.
13. Consumers expect **QAP wines** to be available from on-site retail outlets and liquor or grocery stores. Similarly, they expect **QAP information** to be available from on-site retail outlets, followed by Google searches.
14. Of the sample, **47 percent** indicated a **QAP would increase their purchase likelihood for a Tennessee wine**, 49 percent said it would not impact their purchase likelihood, and 4 percent indicated a negative impact.
15. **QAPs** are perceived as a positive way to **grow the Tennessee wine market, improve consumer understanding and reduce risks** when purchasing wine (for self-consumption or as a gift).

Section 1: Introduction

The objective of this report is to investigate consumer perceptions of Tennessee wines, local wines and QAPs to provide insights to the state's grape and wine industry. In recent years, Tennessee's grape and winery industries have experienced substantial growth. For instance, in 2017 Tennessee had approximately 462 grape farms with a cumulative 959 acres and 747 bearing acres, which is nearly twice the 2007 acreage (Hughes, 2020). The majority of those farms supply grapes to Tennessee wineries. In 2020, Tennessee had 68 wineries. Nearly 65 percent of those wineries (44 wineries) had employees with an estimated impact of 648 direct employees, up from 246 employees in 2013. The growth in Tennessee's wine and grape industry is of particular importance given that approximately 60 percent of the industry is located in rural areas (Hughes, 2016), meaning the industry has potential to aid rural communities through increased job opportunities and economic resources.

Consumer perceptions of Tennessee wine are not well understood. However, research indicates consumer perceptions of wine is strongly influenced by origin, which impacts consumers' purchasing behavior (Chamorro et al., 2014; Woods et al., 2015). Many studies demonstrate strong regional preferences (Kallas et al., 2013; Veale & Quester, 2008) that are amplified if the region is known for wine (Jaeger et al., 2013). These studies demonstrate the importance of being aware of consumer perceptions of wine from specific origins (i.e., Tennessee) and identifying means of generating consumer awareness and interest in wines from that region in order to resonate with consumers and influence their choices. Currently, there are two studies addressing consumer preferences for Tennessee wine (Everett et al., 2017 and 2018). They demonstrate a positive relationship between consumers' increased valuation of Tennessee wine and winery visits, local food preferences and interest in muscadine wines (Everett et al., 2018; Woods et al., 2015). Shopping at a winery versus other retail outlets also improves participants' preferences for Tennessee wine (Everett et al., 2017). These studies serve as a good base of information into consumers' mindsets and indicate on-farm sales are very important to Tennessee's wine industry. However, they do not address perceptions and how those perceptions vary for local and Tennessee wines.

Another important factor that likely influences consumer behavior toward Tennessee wine is the use of value-added attributes to reach different market segments. Previous studies indicate consumers are willing to pay premiums for Tennessee wine (Everett et al., 2017 and 2018) and the pandemic has heightened interest in "local" goods with shorter supply chains (Hobbs, 2020). Additionally, local, small, independent retailers exhibit higher customer retention than supermarkets or farmers markets (Li, Hallsworth, & Coca-Stefaniak, 2020). Pairing local production with other value-added attributes may be another means of attracting new consumer groups and generating value for the Tennessee wine industry. Consumers are interested in quality assurance and other extrinsic cues on wines (Appleby et al., 2012; Saenz-Navajas et al., 2013). The inclusion of a QAP in marketing Tennessee wines has not been addressed but may aid Tennessee wineries in reaching and engaging existing and new consumer groups.

The next section covers the methodology and sampling for the study. Then results are presented, including current purchasing behavior, wine preferences, involvement with wine activities, local wine perceptions, Tennessee wines and tourism, and QAPs. Lastly, a brief summary and recommendations are provided.

Section 2: Methods and Sample

An online survey instrument was used to collect responses from U.S. wine consumers between September 2–14, 2021. The survey consisted of several sections, including an introduction containing the consent form and screening questions, followed by a choice experiment, and other questions related to their current purchasing behavior, wine involvement and tourism, local definitions, familiarity with Tennessee and Tennessee wines, perceptions of quality assurance programs, and socio-demographic questions. Prior to participating in the study, participants were screened to ensure they were at least 21 years old, live in Tennessee or have visited Tennessee or plan on visiting Tennessee in the future, and had purchased wine in the past 12 months. If a participant met these requirements, s/he completed the survey.

A total of 1,216 people participated in the study. Given the length of the survey, some of the questions were only asked of half the sample. Differences in sample size (where applicable) are noted in the report below. Of the total sample, 60.9 percent were Tennessee residents. After Tennessee, the primary states of residence were Florida (4 percent of the sample), followed by Texas, New York, Georgia, Ohio, Pennsylvania, California, North Carolina and Oklahoma (Figure 1). On average, participants were 43 years old and nearly 70 percent were female. The highest portion of the sample lived in suburban areas (42 percent), followed by urban (35 percent), and rural (23 percent) areas. The average household size consisted of two to three people and 32 percent of the sample had a 2-year college degree or higher at the time of the study. In 2020, the average household income was \$65,629.72.

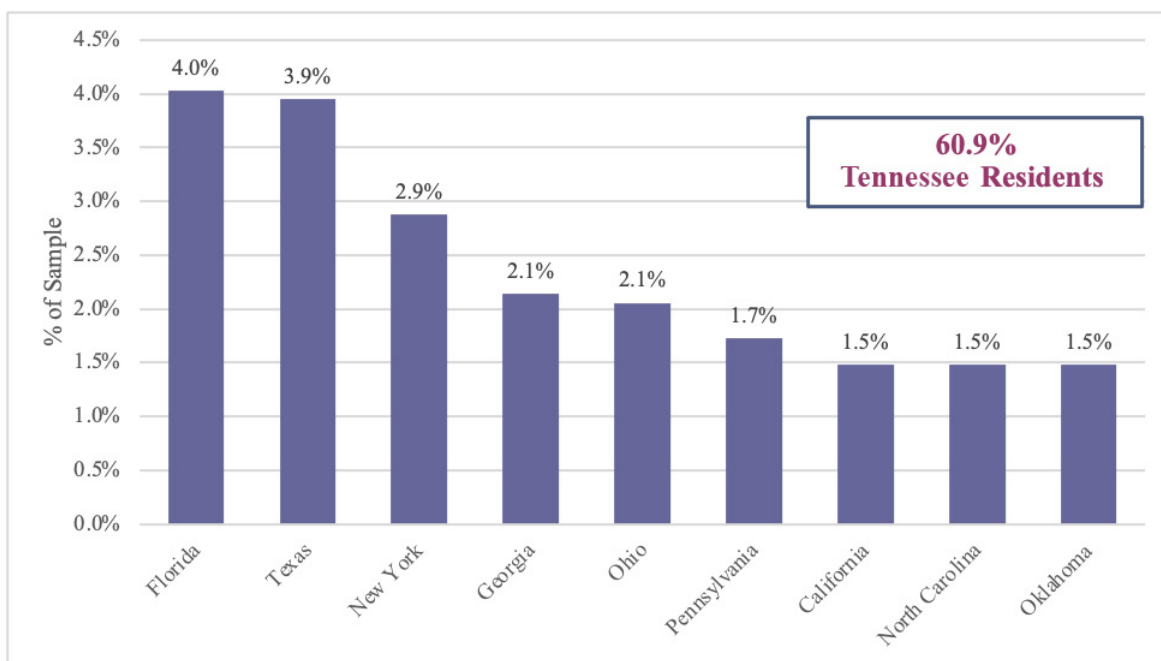


Figure 1. *The Top Non-Tennessee States of Residences for Participants in the Online Survey (n=1,216)*

Section 3: Current Purchasing Behavior

Participants indicated how frequently they purchased wines on an annual basis from different retail outlets. They purchased wine from liquor or grocery stores the most frequently at 8.5 times per year, followed by restaurants (4.7 times per year), on-site locations (2.5 times/year), websites or online orders (1.9 times/year), wine clubs (1.4 times/year) and other retailers (0.8 times/year) (Figure 2). During the COVID-19 pandemic, participants' restaurant wine purchases decreased, but their on-site and liquor or grocery store wine purchases increased (Figure 3).

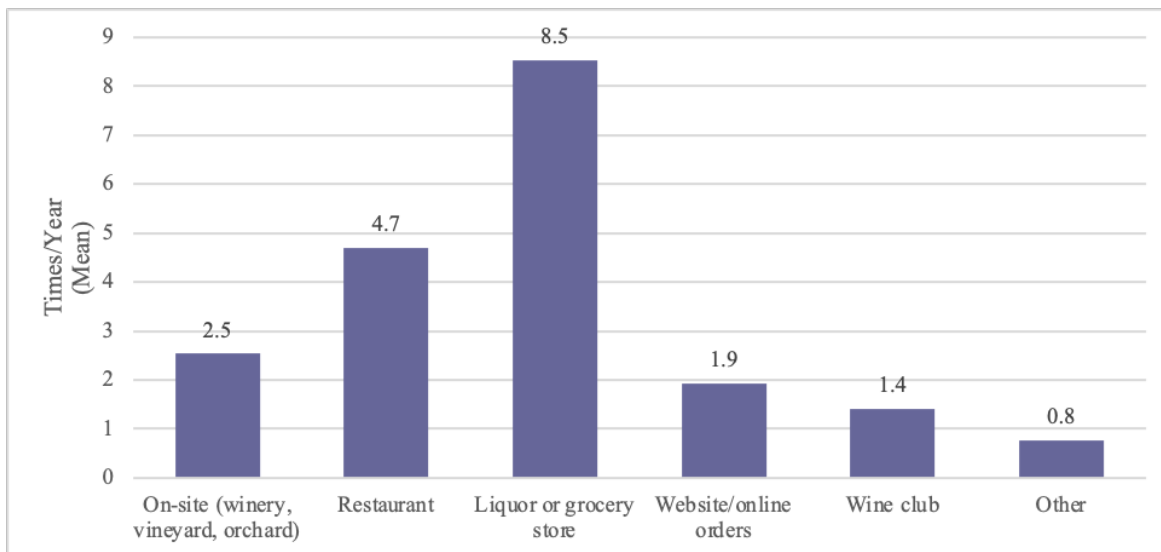


Figure 2. Average Frequency per Year of Wine Purchases, by Retail Outlet (n=1,216)

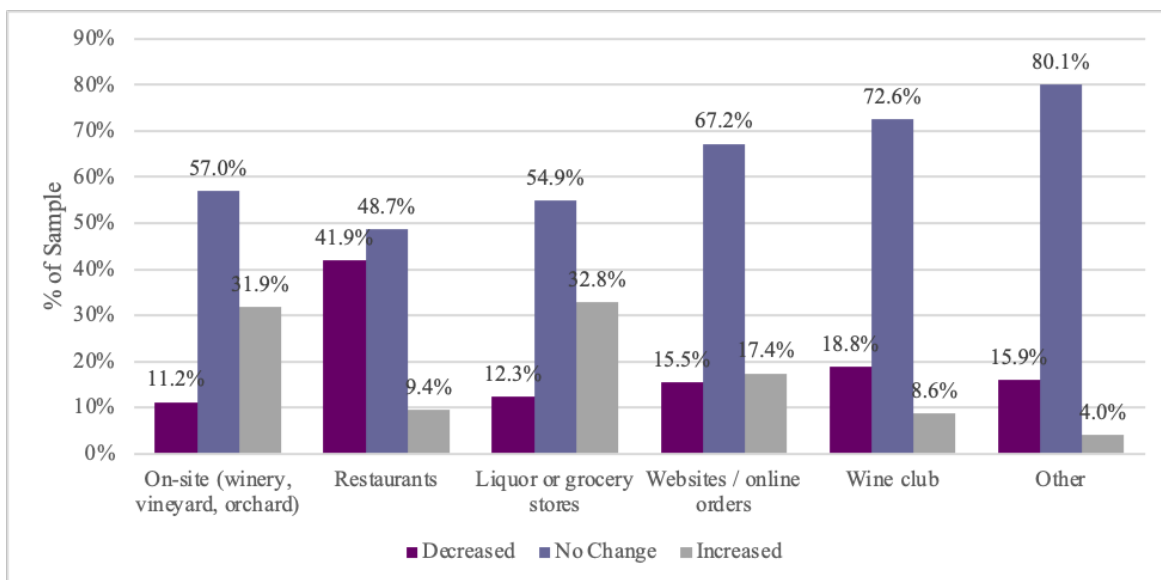


Figure 3. The Impact of the COVID-19 Pandemic on Wine Shopping Behavior, by Outlet (n=628)

In a typical month, participants spent \$54.68 on wine and purchased 3.7 bottles, which equates to \$14.89 per bottle. However, the amount they expected to pay for the wines varied by the wines' origins. For local wines, participants expected to pay between \$16 and \$20 per bottle, followed by \$11 to \$15 per bottle, with an average expected price of \$15.85 per bottle. For U.S. wines, participants expected to pay \$11 to \$15 per bottle, followed by \$16 to \$20 per bottle, and \$21 to \$25 per bottle, which averaged \$16.97 per bottle. Lastly, for international wines, a large portion of participants did not purchase international wines and their average expected price was \$15.34 per bottle.

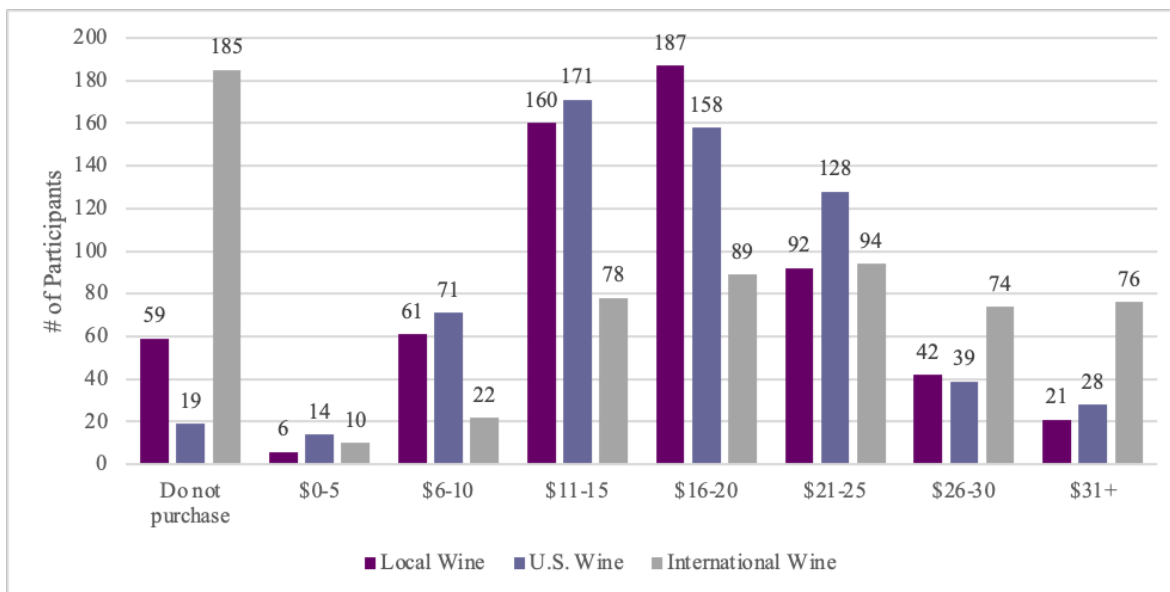


Figure 4. Distribution of Expected Wine Prices by Wine Origin (n=632)

Approximately half of the sample (n=588) answered the question about how different factors influence their purchasing decisions for wines. Wine type and past experiences with that wine had the strongest positive impacts (Figure 5). Family/friend recommendations, bottle label information, quality indicators and local origins were the next highest rated factors. Other factors positively impacted purchasing decisions, but not as strongly as the previously listed factors. These included in-store reviews, online reviews, non-local origin information, organic production and in-store signage.

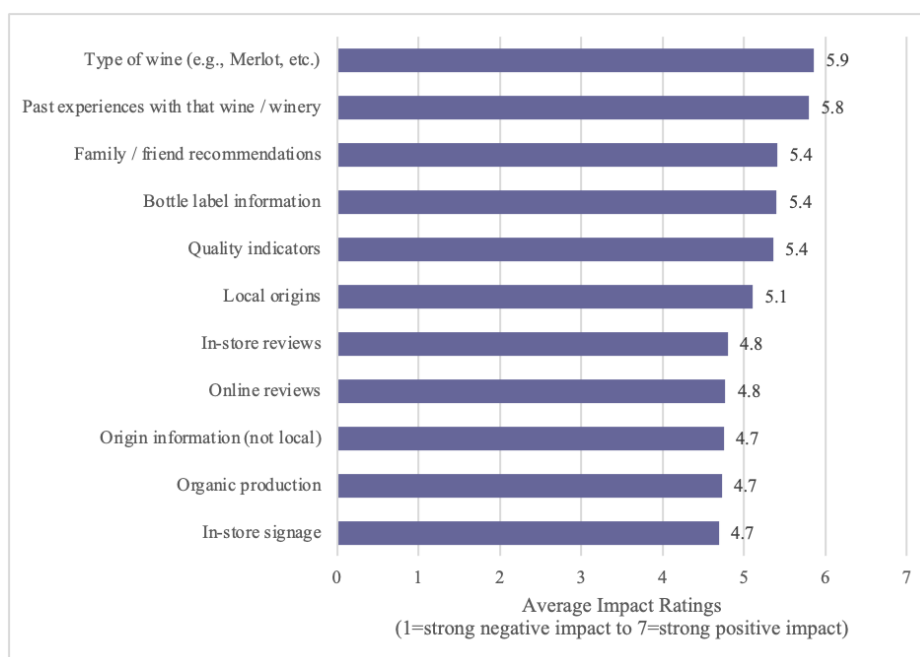


Figure 5. Average Impact of Factors on Participants' Wine Purchasing Decisions (n=588)

Section 4: Participants' Wine Preferences

Participants were given a list of six wine types (red, white, blush, sparkling, fruit and other wines) and indicated the type they purchased and consumed most frequently (Figure 6). Regardless of whether they were just purchasing (as a gift or for someone else) or consuming the wine, red wines were the most frequently bought type of wine, followed by white wines. Participants indicated a slightly higher frequency of purchase (around 2 percent) than consumption for red and white wines. Slightly higher than 8 percent of the sample indicated frequently purchasing or consuming blush wines. Approximately 8.5 percent indicated they most frequently consumed fruit wines (not grape) with 6.6 percent primarily purchasing fruit wines. About 6.4 percent consumed sparkling wines the most frequently with 4.9 percent purchasing sparkling wines the most frequently. Slightly over 1 percent of the sample indicated frequently purchasing or consuming other (not listed) types of wines. Relatedly, 41 percent of participants indicated preferring a red blend wine, with 33 percent indicating a single variety wine, and 26 percent a white blend wine (Figure 7).

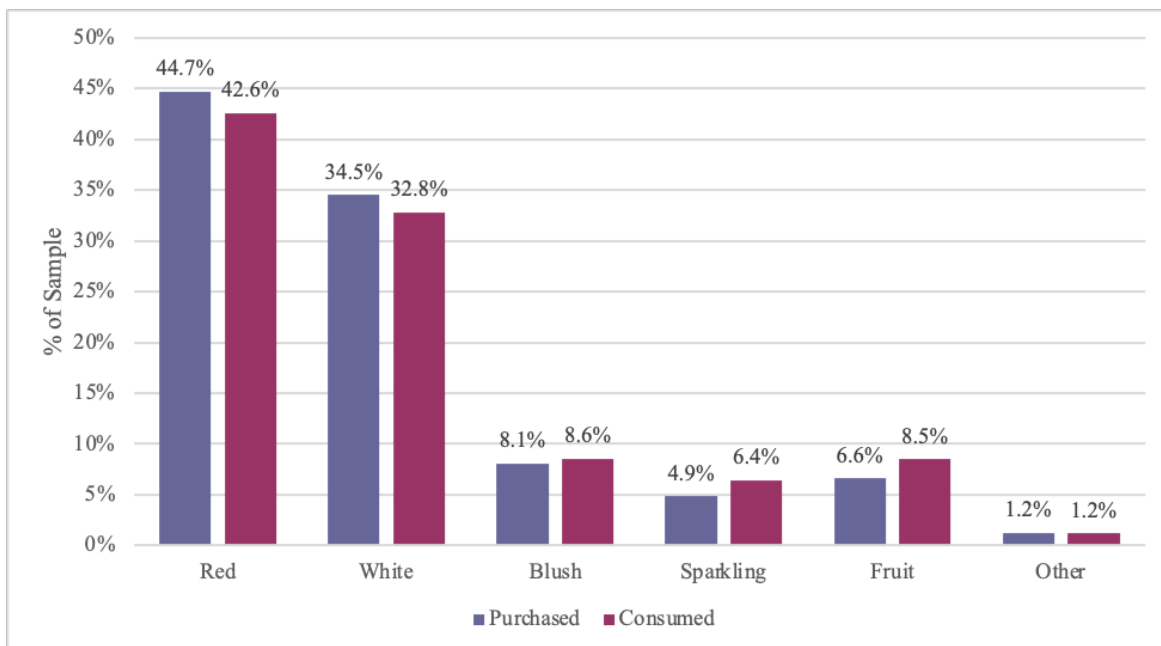


Figure 6. Wine Type Most Frequently Purchased and Consumed by Participants (n=1,216)

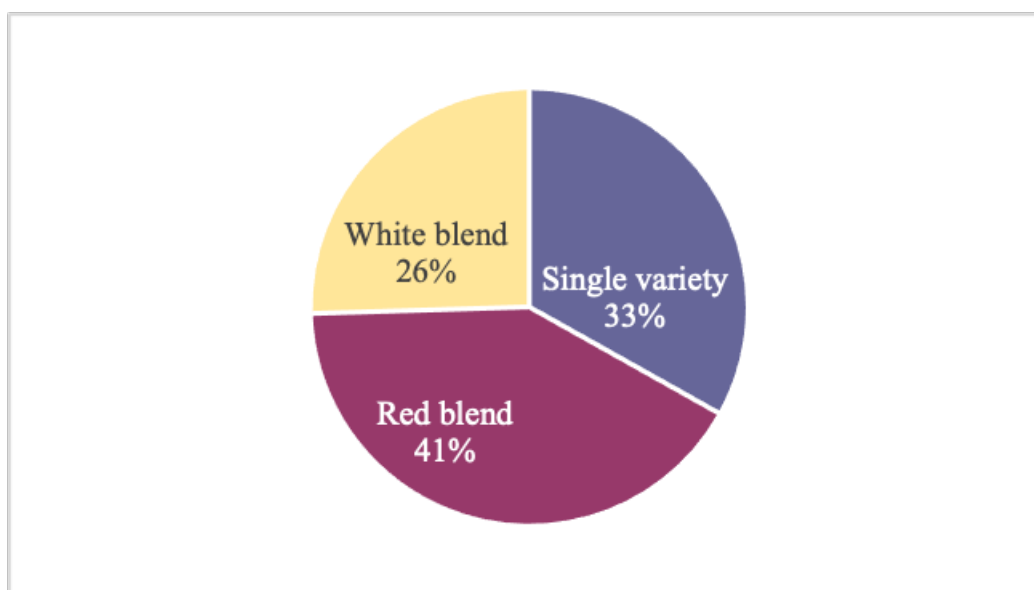


Figure 7. Wine Composition Preferences (n=628)

Participants indicated their wine sweetness preferences, and most participants preferred a sweeter wine regardless of color (Figure 8). The largest portion of participants indicated they prefer a sweet red wine (25.8 percent of the sample), followed by a semi-sweet white wine (16.4 percent), a dry red (15.1 percent), and semi-sweet red (11.8 percent). The remaining options were selected by less than 10 percent of the sample. Figure 9 used information from the same question but estimated the percent of the sample that preferred a red dry, red sweet, white dry and white sweet wine for the total sample, Tennessee residents, and other U.S. sample (minus Tennessee residents) to see if participants' location influenced their preferences. Approximately 38 percent of the sample selected a semi-sweet or sweet red wine (approximately 18 percent selected a bone dry or dry red) while roughly 33 percent indicated a semi-sweet, sweet or very sweet white wine (roughly 12 percent selected a bone dry, dry or off-dry white). Tennessee residences had a slightly elevated number of participants indicating a preference for the sweet wines regardless of color. Conversely, although sweet wines were still preferred by the majority of the sample, other U.S. residents had slightly higher preferences for drier wines.

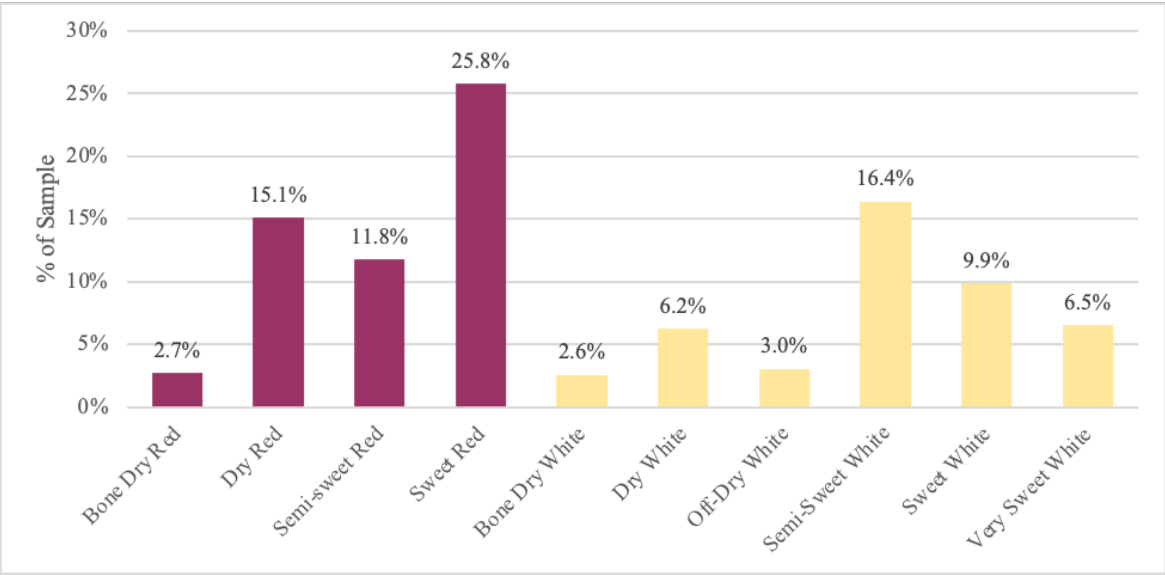


Figure 8. Participants' Preferences for Wine Sweetness, by Wine Color (n=628)
Note: Wine sweetness ratings were adopted from Wine Folly's Wine Sweetness Charts (2021).

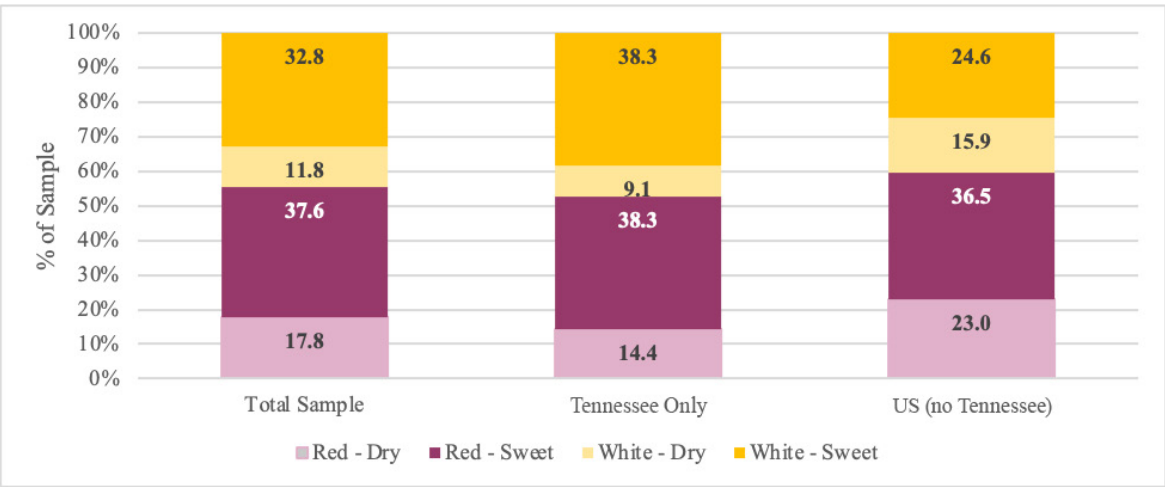


Figure 9. Participants' Preferences for Wine Sweetness, by Wine Color and Geographical Location (n=628)

Table 1 summarizes participants' amount spent on wine and the number of bottles purchased per month for the total sample, Tennessee residents and non-Tennessee residents by sweetness preferences. Interestingly, although participants who prefer dry wines spent more and purchased about one more bottle per month than sweet wine consumers, their average spending per bottle was less than the participants who prefer sweet wines. Participants who preferred dry wines spent between \$12.52 (residents) and \$13.53 (non-residents) per bottle while those who prefer sweet wines spent between \$15.28 (residents) and \$15.95 (non-residents) per bottle. Additionally, Tennessee residents spent \$0.63-\$0.65 less per bottle than non-Tennessee residents.

Table 1. Average Wine Purchasing Frequency and Number of Bottles per Month, by Wine Sweetness and Tennessee Residency

	Prefer Dry Wine			Prefer Sweet Wine		
	Total Sample	Tennessee Resident	Non-Tennessee Resident	Total Sample	Tennessee Resident	Non-Tennessee Resident
Responses (n)	186	88	98	442	288	154
Average Price Paid per Bottle Purchase (USD)	\$59.53	\$49.81	\$63.61	\$52.83	\$47.22	\$54.71
Average Bottles per Month	4.40	3.98	4.83	3.33	3.09	3.43
Average Price per Bottle	\$13.54	\$12.52	\$13.17	\$15.85	\$15.28	\$15.95

Section 5: Involvement with Wine Activities

Participants were given a list of nine activities related to wine involvement and/or general involvement with Tennessee and selected all that applied to them. Approximately 48 percent of the sample indicated they like to visit wineries, followed by 47 percent like to read wine labels, 39 percent enjoy attending wine tasting events/courses, and 24 percent follow wineries on social media (Figure 10). A little over 14 percent of the sample indicated household participation in a wine club, followed by receiving newsletters about Tennessee tourism (12.8 percent), wineries (12.2 percent), or Tennessee wineries (10.9 percent). Only 8 percent of the sample indicated that they or someone in their household was a loyalty or wine club member of a Tennessee winery. On average, participants selected 2.16 activities that described their situation. Approximately 24 percent of the sample selected one activity, followed by 19 percent selecting zero activities, 19 percent three activities, 18 percent two activities, and 9 percent four activities (Figure 11). Only 10.8 percent of the sample indicated involvement with five or more activities listed.

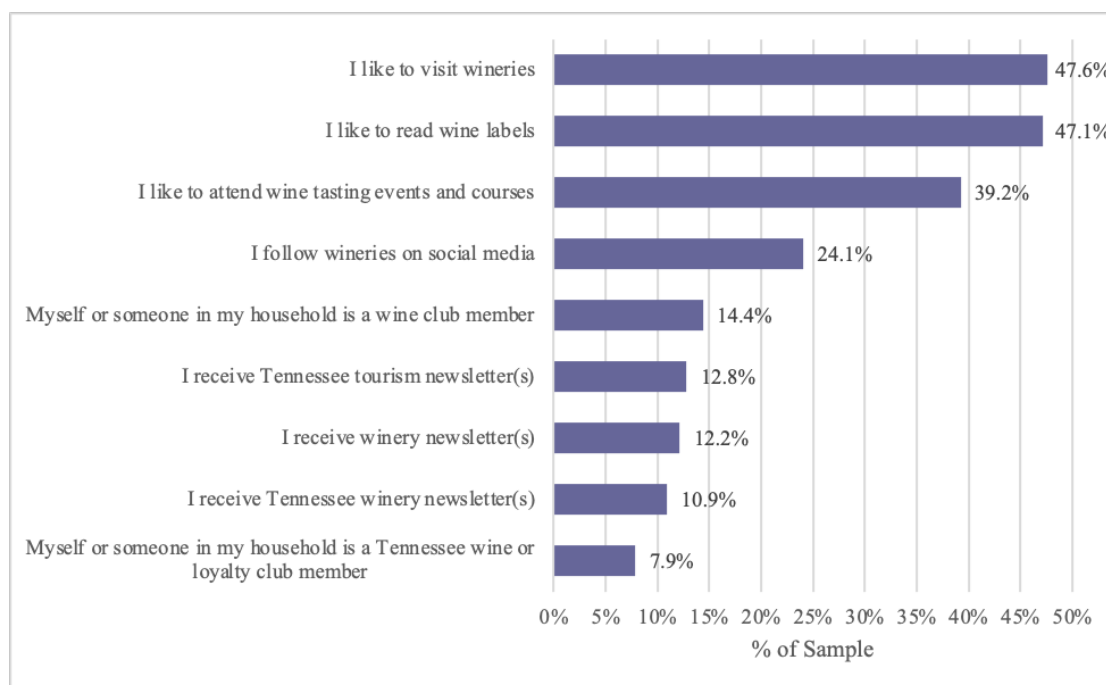


Figure 10. Participation in Wine-Related Activities (n=1,216)

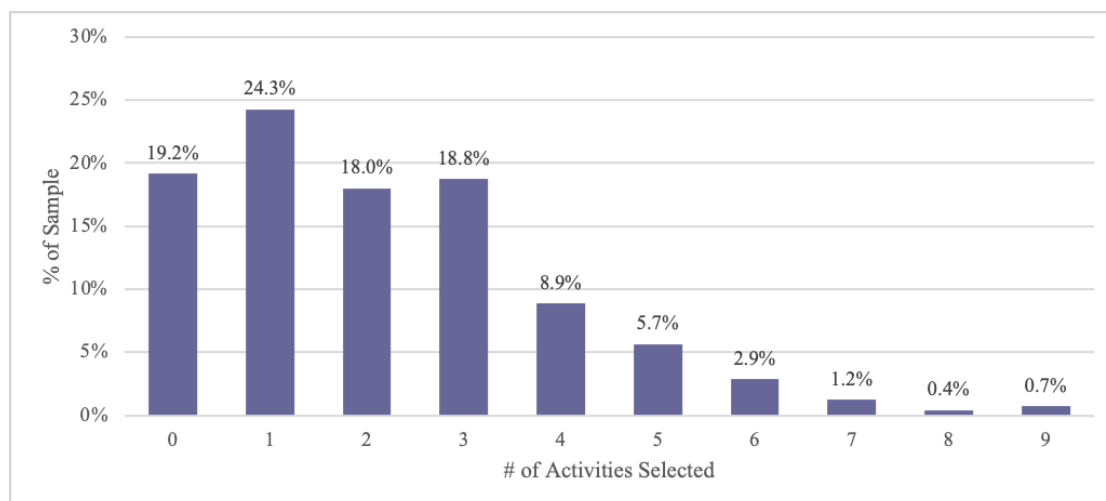


Figure 11. Number of Wine-Related Activities Participants Selected (n=1,216)

Section 6: Local Wine Perceptions

Greater demand for local products has highlighted the need to understand how consumers perceive the term local. In the wine industry, local could pertain to the fruit source, juice source, processing/fermentation location, vineyard/winery/retail establishment's location, point-of-sale or a variety of other contexts. Participants were asked a series of questions to identify their existing perceptions of local wines.

In the first question, participants indicated their level of agreement with different statements using a 7-point scale where 1 indicates strong disagreement, 4 neither agreement nor disagreement, and 7 strong agreement. Participants agreed the most with the statement that they assume local wine is made with local grapes/fruit, followed by local wines having a good taste, texture and palate, and local wineries supply a great variety of wines. They also agreed that local wines have reasonable prices, present complete and attractive labels, and are exciting because they are made from new varieties of grapes. Participants disagreed that they were not familiar with local wines.

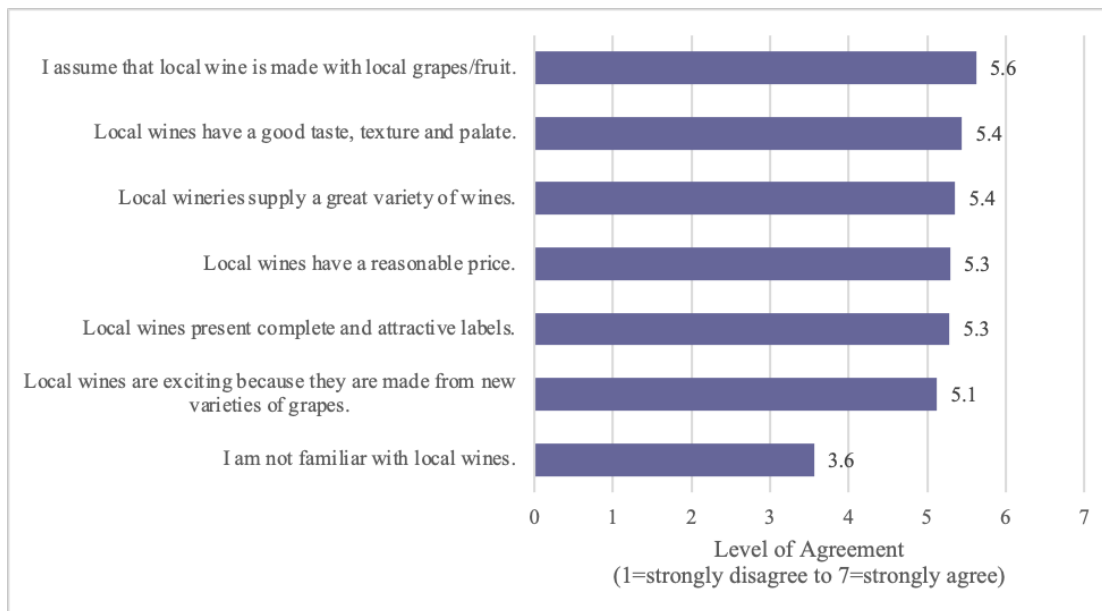


Figure 12. Average Ratings of Participants' Agreement with Local Wine Perception Statements (n=1,216)

Interestingly, participants indicated a greater level of consumption of local, Tennessee and U.S. wines than international wines (Figure 13). However, they indicated increased use of international wines as gifts.

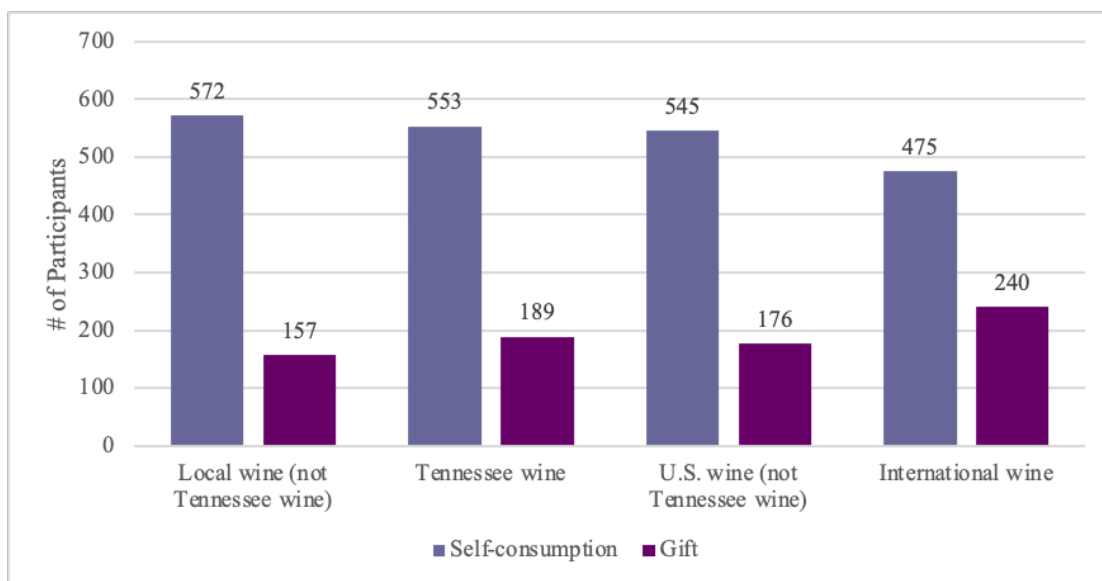


Figure 13. Self-Consumption versus Gift Purchases of Wines from Different Origins (n=628)

Participants indicated whether they had purchased wine produced in-state within the past two years. Of the non-Tennessee residents (n=476), 80 percent indicated they had purchased in-state wines while 20 percent had not. Of the Tennessee residents (n=740), 74 percent had purchased an in-state wine while 26 percent had not. For the non-Tennessee residents, 54 percent had purchased a Tennessee wine in the past five years while 46 percent had not purchased a Tennessee wine in that timeframe.

Participants also indicated their perceived distance that they live from a winery, vineyard or orchard that produces wine. Many participants indicated they lived within 50 miles, with an average of 45 miles across all responses (Figure 14). If one considers the distance to a Tennessee winery for state residents, the average distance is somewhat lower at 39 miles. Non-Tennessee residents indicated an average of 55 miles to a winery and 205 miles to a Tennessee winery. On average, during their most recent visit to a winery, vineyard or orchard that makes wine, participants spent \$38.04 on wine with only 23 percent not purchasing wine (Figure 15).

Participants indicated the level of importance of whether wine localness is defined by fruit origin, juice origin, processing/fermentation/bottling location, and location where the wine is sold. Overall, no significant differences were observed across the options. Participants perceived all four options as important with a mean rating of 5.08 to 5.12, meaning participants do not perceive a lot of difference between the information (Figure 16).

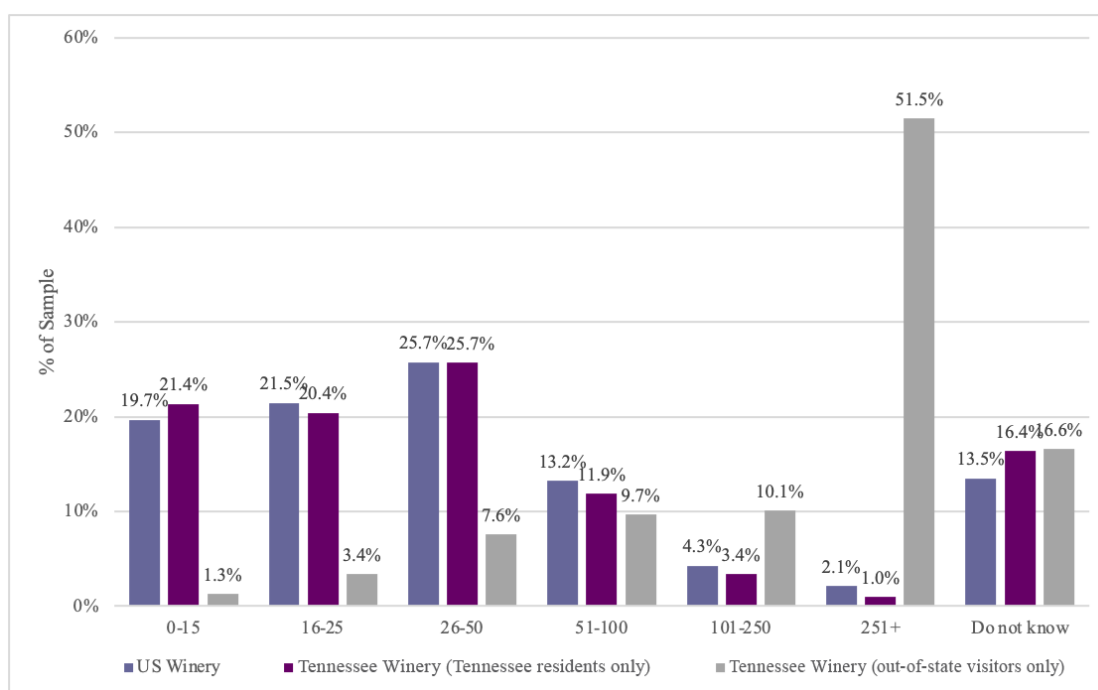


Figure 14. Home Distance from a Winery, Vineyard or Orchard that Produces Wine (n=1,052) *

**Distance is perceived miles to a winery, vineyard or orchard not the actual miles.*

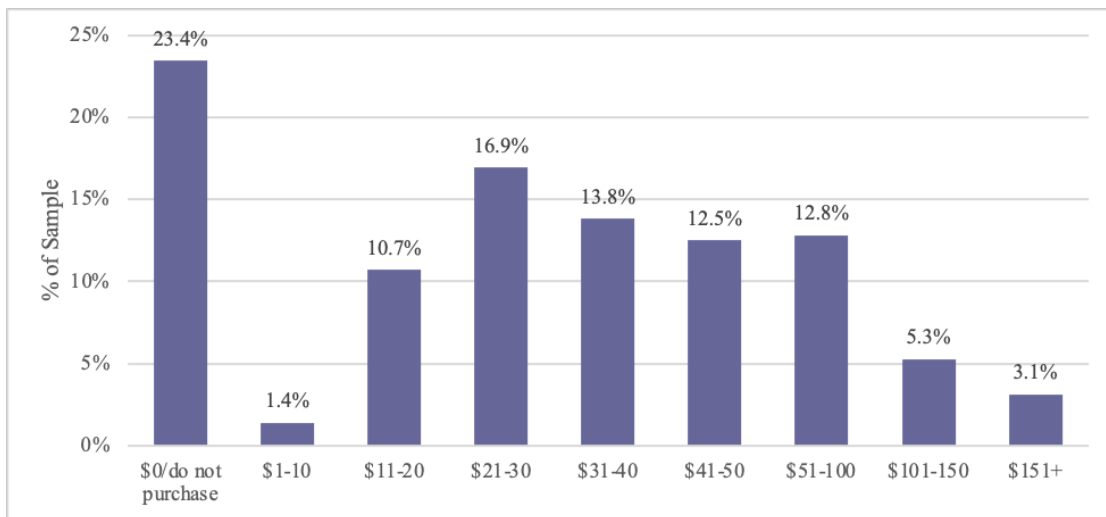


Figure 15. Amount Spent on Wine at Participants' Most Recent On-site Visit (n=1,216)

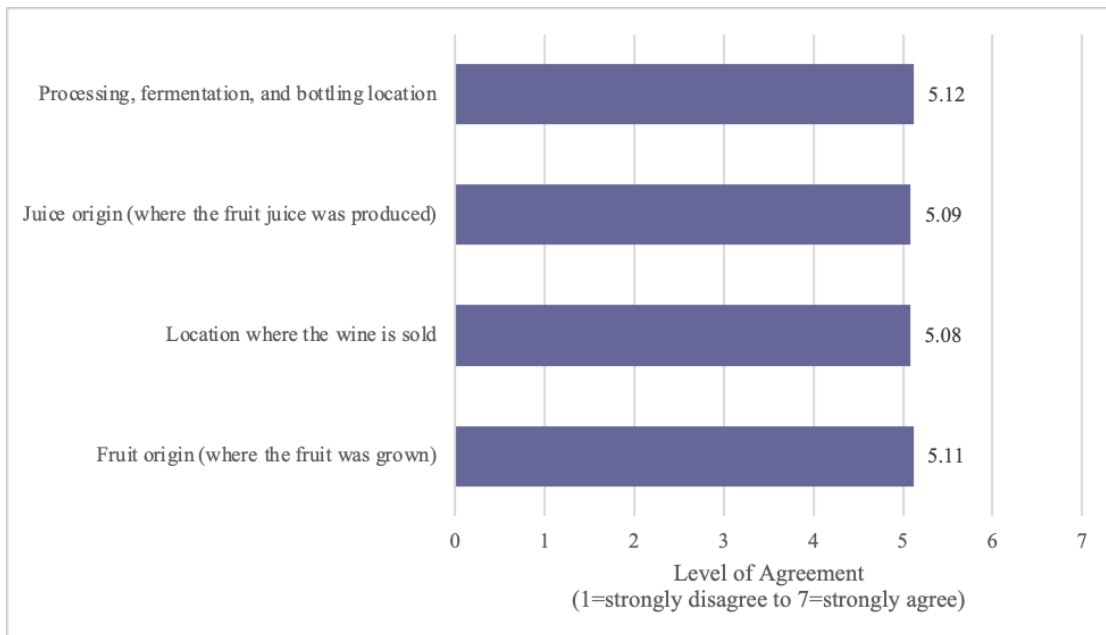


Figure 16. Participants' Average Rating of Agreement with Local Wine Statements (n=588)

Figure 17 expands on this information by capturing local perceptions of wine produced using fruit grown or juice processed from a close proximity (e.g., on-site) to imported options (e.g., outside the U.S.) In general, wine produced from fruit grown or juice processed on-site, within the county or within the state were considered local. If the wine was produced with fruit grown or juice processed in neighboring states or in the U.S. (in general), approximately 20 percent of the sample viewed these wines as not local. If the wine was produced using a fruit grown or juice processed outside the U.S., nearly 29 percent of the sample view these wines as not local. These results may imply confusion among consumers about what local wine means, lack of familiarity with the production practices of wine, indifference to ingredient sources when it comes to wine, or an increased emphasis on where the wine is made rather than where the ingredients are sourced.

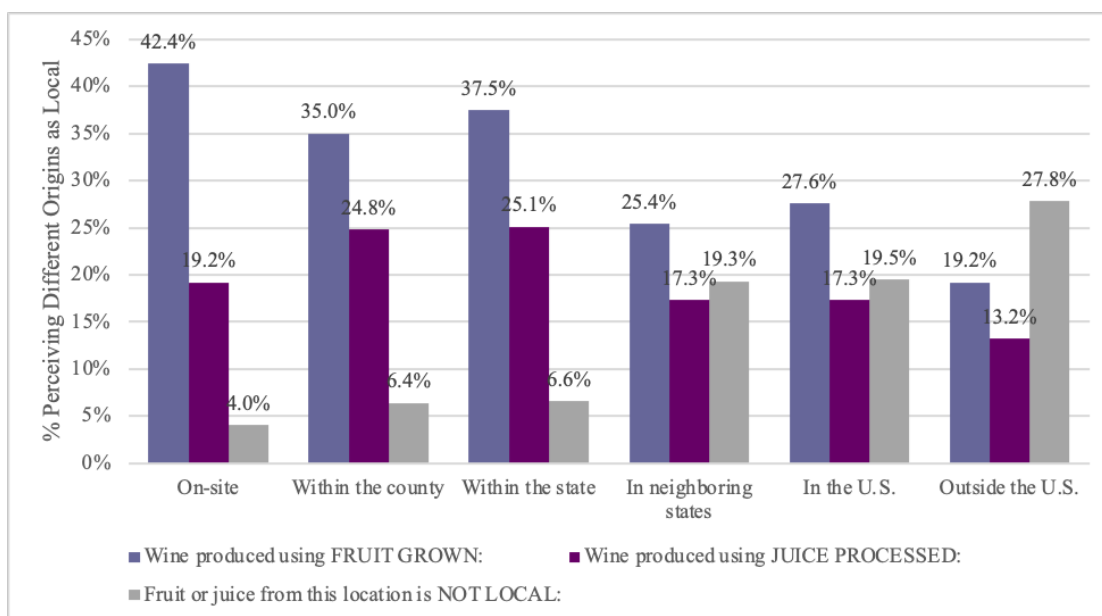


Figure 17. *Impact of Fruit Grown and Juice Processed on Local Wine Perceptions, by Location (n=1,216)*

Section 7: Tennessee Wines and Tourism

Consumers' familiarity with products and locations can influence their perceptions and opinions. Participants indicated their familiarity with Tennessee wines, wine trails, wine clubs and vacations. Participants exhibited the highest level of familiarity with Tennessee vacations (mean rating of 4.7) and wines (4.4) (Figure 18). They were less familiar with Tennessee wine trails (3.5) or wine clubs (3.3).

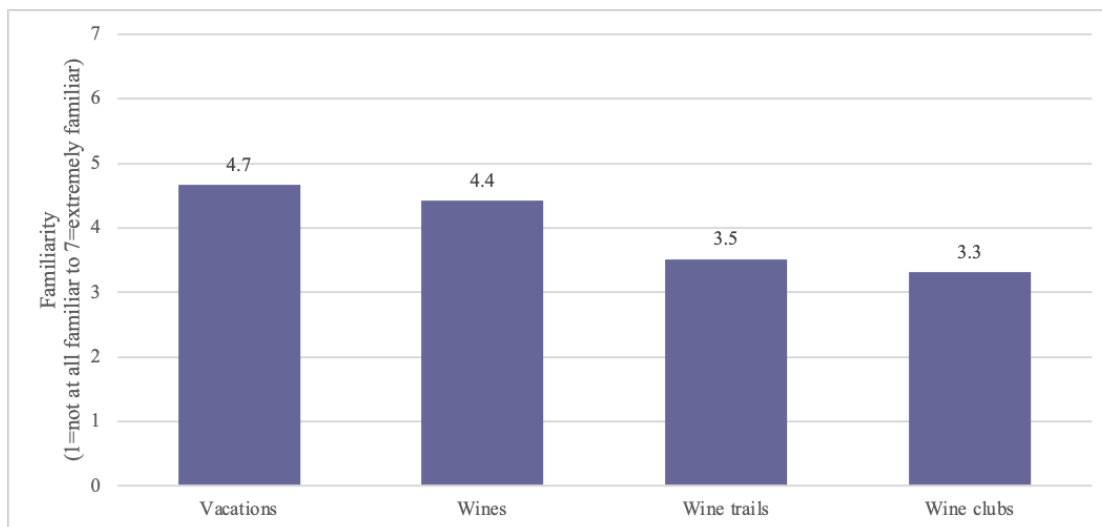


Figure 18. *Participants Average Familiarity Rating with Tennessee Products and Activities (n=1,216)*

Regarding participants' perceptions of Tennessee wines, they perceive that Tennessee wines are made from local grapes/fruit (Figure 19). To be classified as a Tennessee wine, the wine needs to be produced using 75 percent or more of Tennessee grown fruit. Currently, Tennessee does not produce enough fruit to meet in-state demand and supplements their fruit/juice supply from out-of-state sources. There is an opportunity for growers to produce more fruit to meet existing in-state demands. Participants also agreed that they would gift Tennessee wines to friends/family and would recommend Tennessee wines to friends and family. They also perceived Tennessee wines as having a good taste/texture/palate, reasonable price, complete/attractive labels, and are exciting because they are made from new varieties of grapes. Tennessee wineries are also viewed as supplying a great variety of wines. They indicated lower agreement with the statement that they are not familiar with Tennessee wines. Many participants in the sample indicated that if they visited Tennessee, they would be visiting family/friends (66 percent of the sample), or participating in nature tourism (66 percent), food tourism (55 percent), music tourism (44 percent), or heritage tourism (31 percent) (Figure 20). Only 4 percent selected "other" and indicated historical visits or more localized attractions (e.g., Dollywood, Jack Daniels, etc.).

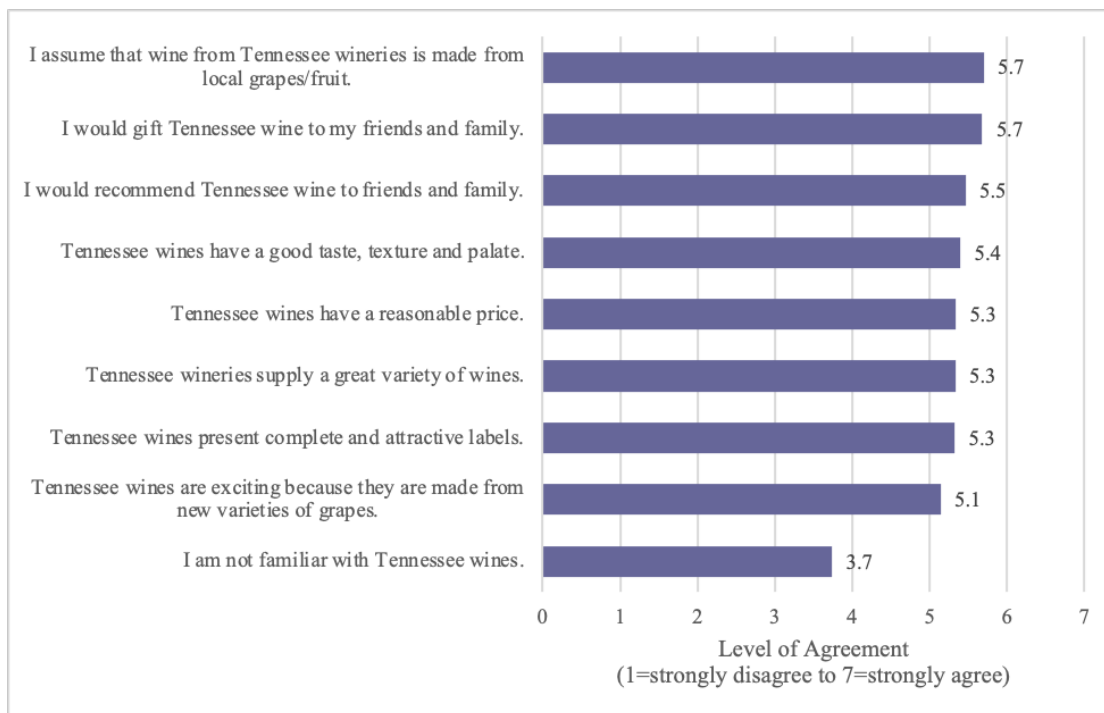


Figure 19. Participants' Average Agreement Level with Statements about Perceptions of Tennessee Wines and Wineries (n=1,216)

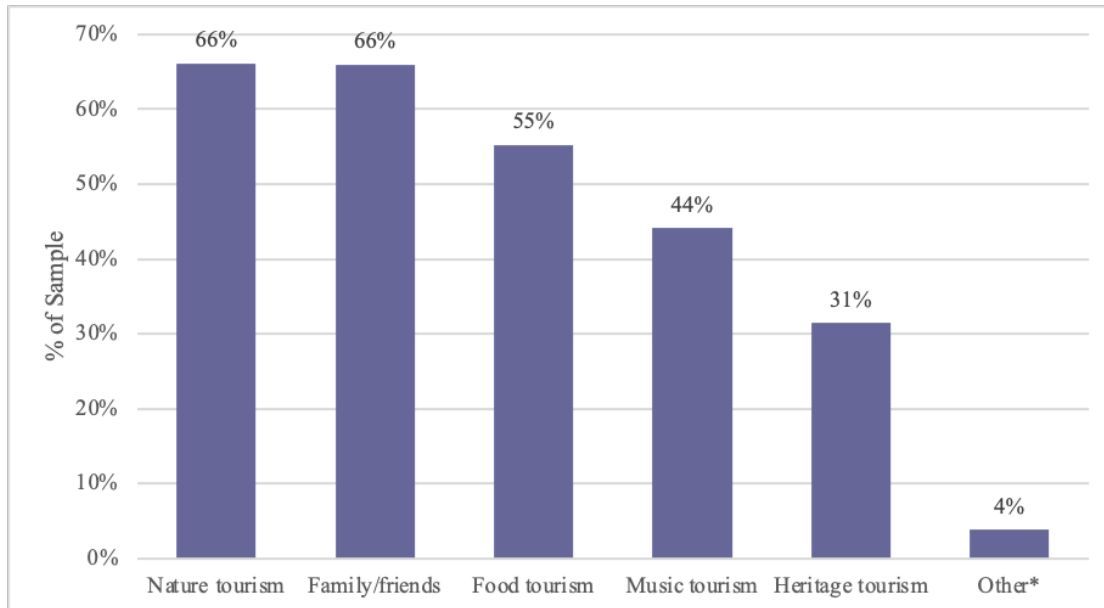


Figure 20. Percent of Participants who Associate Various Activities with Tennessee Trips (n=1,216)

*Examples of "other" reasons included civil war sites, football games, Dollywood, Gatlinburg, historical sites, Jack Daniels, crafts, etc.

Participants indicated where they thought they would most likely purchase a Tennessee wine. They were most likely to purchase Tennessee wine from a liquor or grocery store, followed by an on-site producer-retailer, and restaurants (Figure 21). They were less likely to purchase a Tennessee wine from a website/online order, wine club or other retailers.

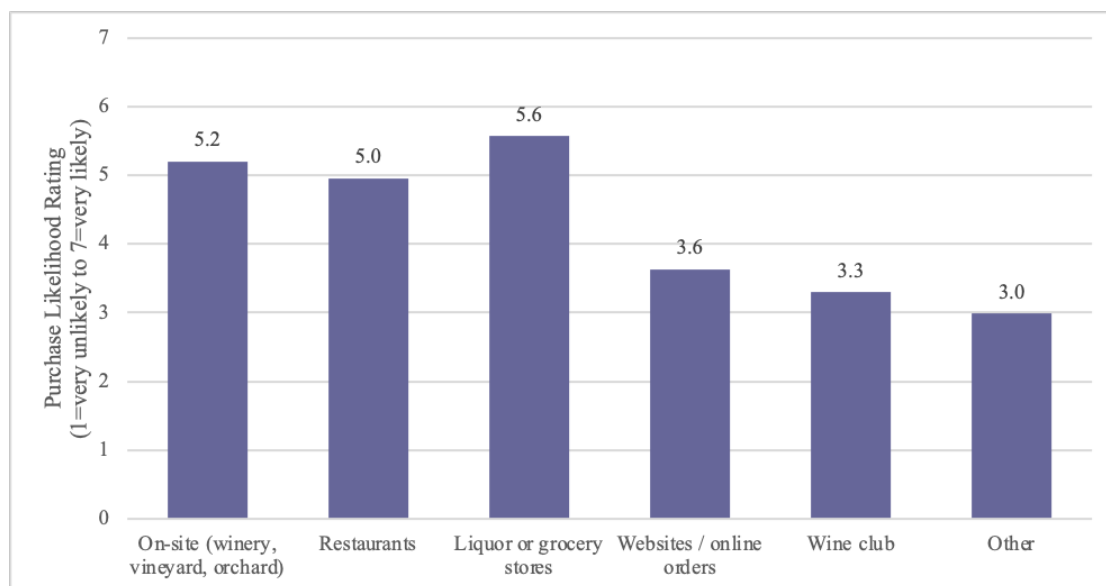


Figure 21. Participants' Average Rating of Their Perceived Purchase Likelihood of Tennessee Wines from Different Retail Outlets (n=1,216)

Regarding participants' likelihood of participating in different wine-oriented activities while visiting Tennessee, they were most likely to buy a Tennessee wine (Figure 22). Similar ratings were observed for the remaining categories, which included visiting a Tennessee winery, vineyard or orchard that produces wine and provided different value-added opportunities (e.g., sells food, has other entertainment, sells craft beer), indicating that all of these options would improve visit likelihood.

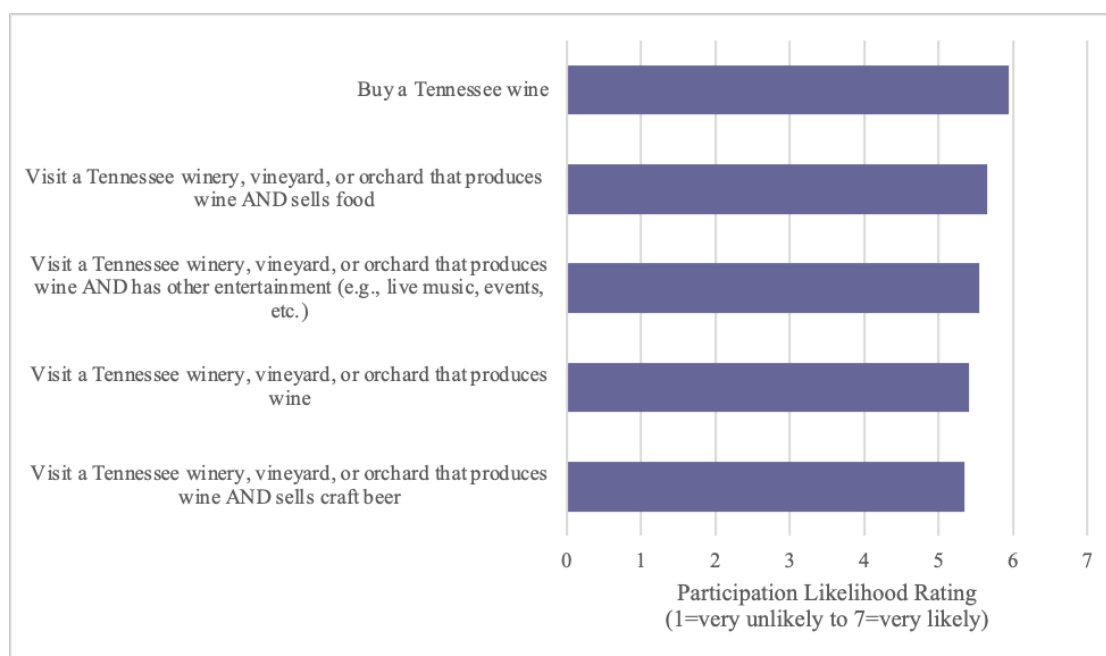


Figure 22. Participants' Average Rating of Likelihood of Participating in Different Activities While Visiting Tennessee (n=588)

If the participant was visiting Tennessee and wanted to visit vineyards or wineries, the number of vineyards or wineries in the area would impact their decision with 59 percent of the sample (n=628) indicating agreement. Individuals who indicated “yes” were asked a follow-up question about the optimal number of vineyards/wineries in an area to visit. The mean number was 2.8 wineries/vineyards, with most participants indicating between two and three, followed by four to five, and then zero to one (Figure 23). Participants indicated the greatest familiarity with wineries/vineyards located in eastern Tennessee, followed by central Tennessee and fewest in west Tennessee (Figure 24).

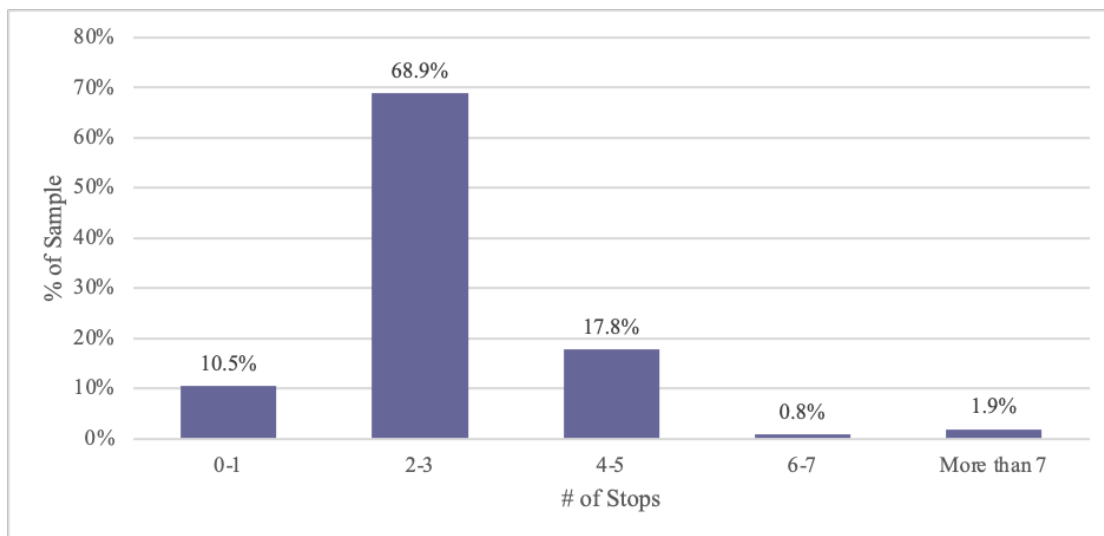


Figure 23. *Optimal Number of Wineries or Vineyards in An Area to Visit (n=370)*

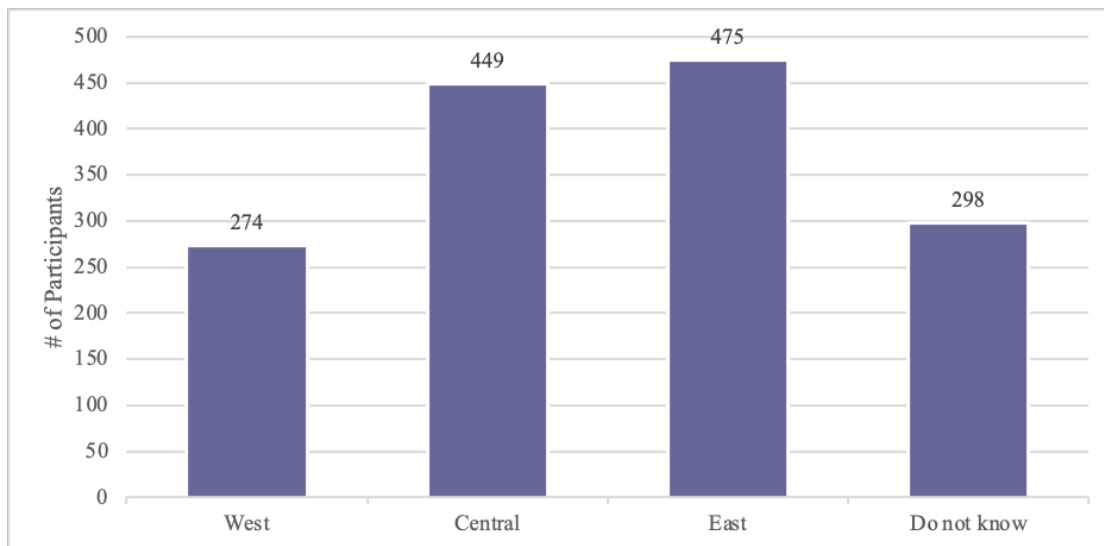


Figure 24. *Regions of Tennessee Where Participants Are Familiar with Vineyards/Wineries (n=1,496)*

Section 8: Wine Quality Assurance Programs (QAPs)

Overall, participants indicated that a QAP is important in their wine purchasing decisions (Figure 25). On average, participants rated a QAPs' importance as 3.6 (out of five points), indicating it is important to them when deciding to purchase a wine. Approximately 54 percent of the sample indicated QAPs are very or extremely important, while 29 percent indicated moderately important, and 10 percent indicated slightly important. Only 6.7 percent indicated that QAPs were not at all important.

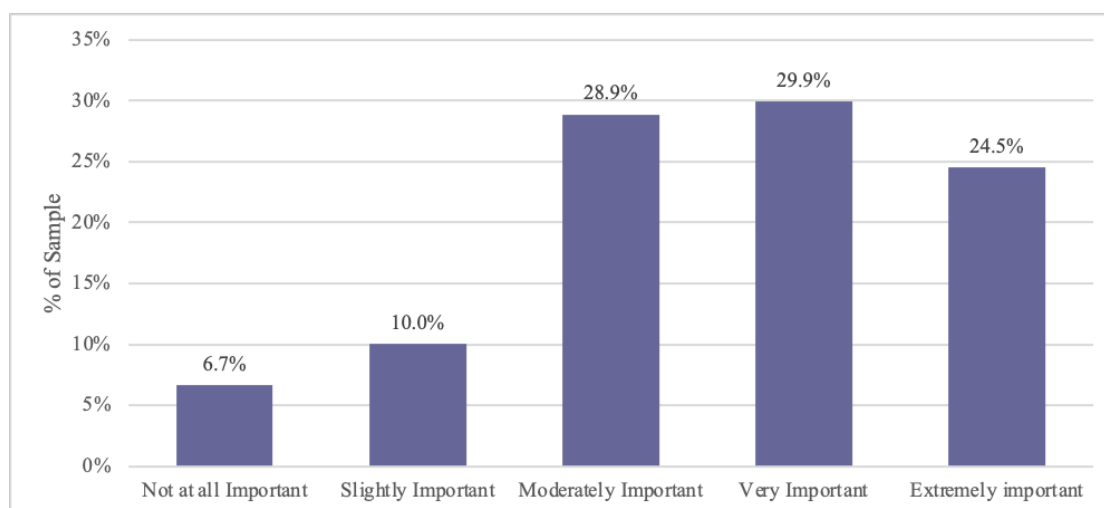


Figure 25. Importance of QAPs on Wine Purchasing Decisions (n=1,216)

Participants also indicated their level of agreement with different QAP perception statements. They agreed that QAPs are an indication of high-quality ingredients, a consistent/standardized end product, and a high-quality end product (Figure 26). They agreed less that QAPs are not important to them or that QAPs are confusing or hard to understand.

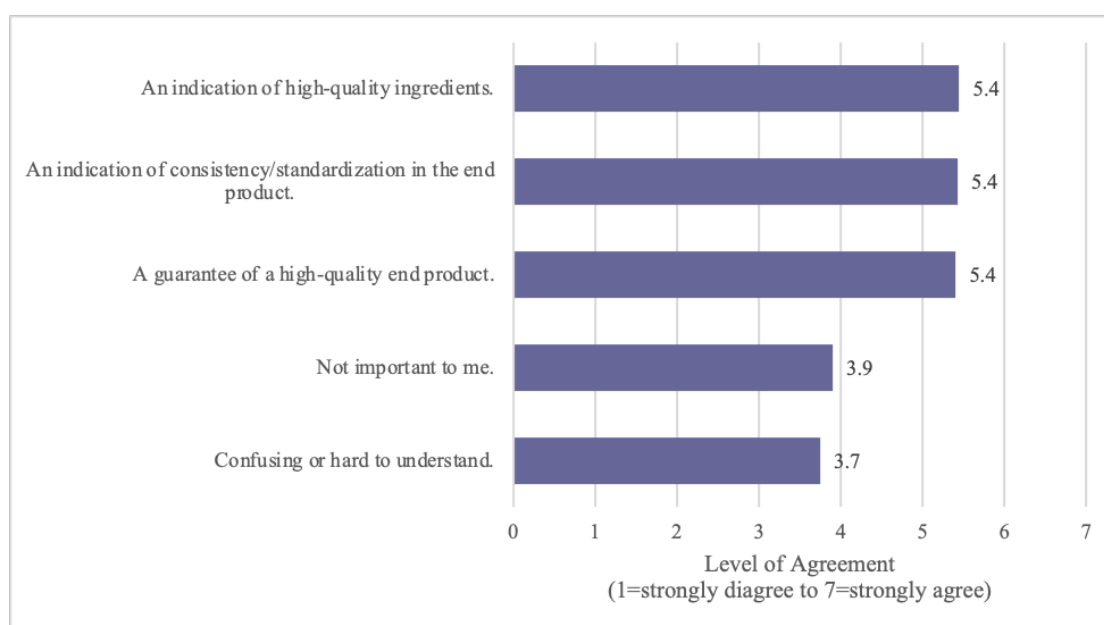


Figure 26. Participants' Average Ratings of Perception Statements of Wine QAPs (n=1,216)

Whether the source of the QAP influenced its effect on consumers' wine purchasing behavior was also explored. Seven QAP sources were presented, which included as follows: university, individual winery, government agency, regional wine association, state wine association, national wine association, international wine association and other independent third-party. Participants indicated how a QAP from these sources would impact their purchase likelihood for wines on a 7-point scale (1=strongly decrease purchase likelihood; 4=no impact; 7=strongly increase purchase likelihood). QAPs from a *national wine association* or *state wine association* were not statistically different from each other and had the strongest positive impact on wine purchase likelihood (Figure 27). Next, QAPs from an *individual winery* or *regional wine association* were not statistically different from each other but had the next strongest positive impact. QAPs from an *international wine association* had the next highest positive impact on purchasing behavior, followed by *university*, *other independent third-party*, and lastly a *government agency*.

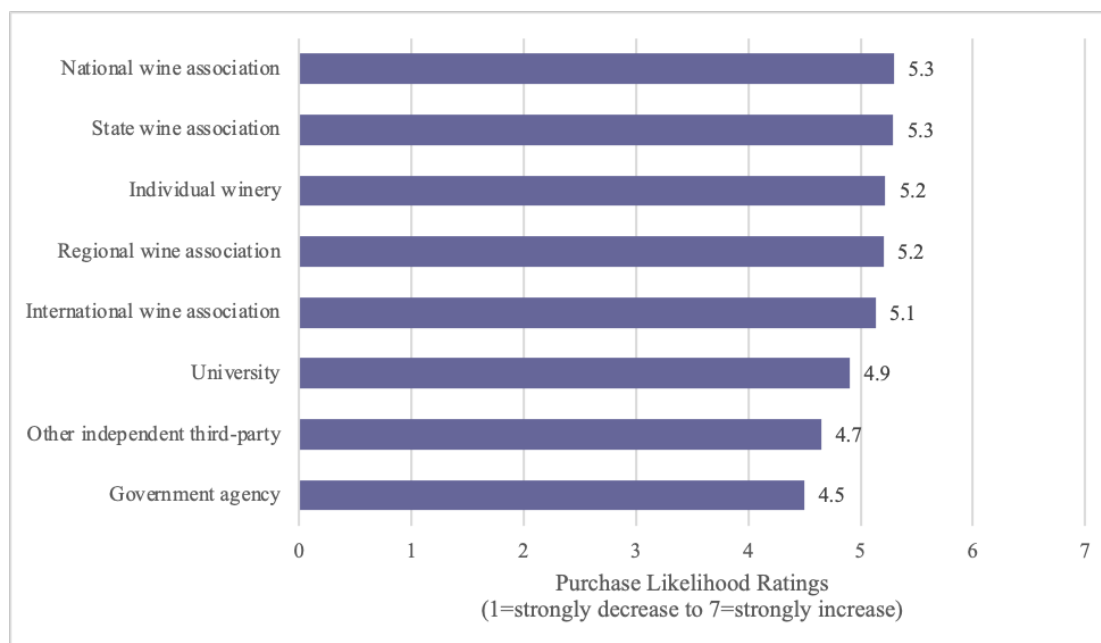


Figure 27. QAP Source and Its Impact on Average Purchase Likelihood Ratings for Wines (n=1,216)

Participants indicated they would expect to pay \$21.39 for a QAP wine (in general). Participants selected retail outlet options that corresponded to where they anticipated QAP wines being sold. (Percentages do not add to 100 given that participants could select multiple options). Interestingly, the majority of participants (69 percent of the sample) anticipated purchasing a QAP wine from an on-site retail outlet (e.g., winery, vineyard, etc.), while 63 percent anticipated QAP wines being available in liquor or grocery stores (Figure 28). About 43 percent indicated restaurants, followed by website/online orders (37 percent), and wine clubs (35 percent). Only 1 percent of the sample selected "other" and many of those answers included "I don't know" or more general retailers.

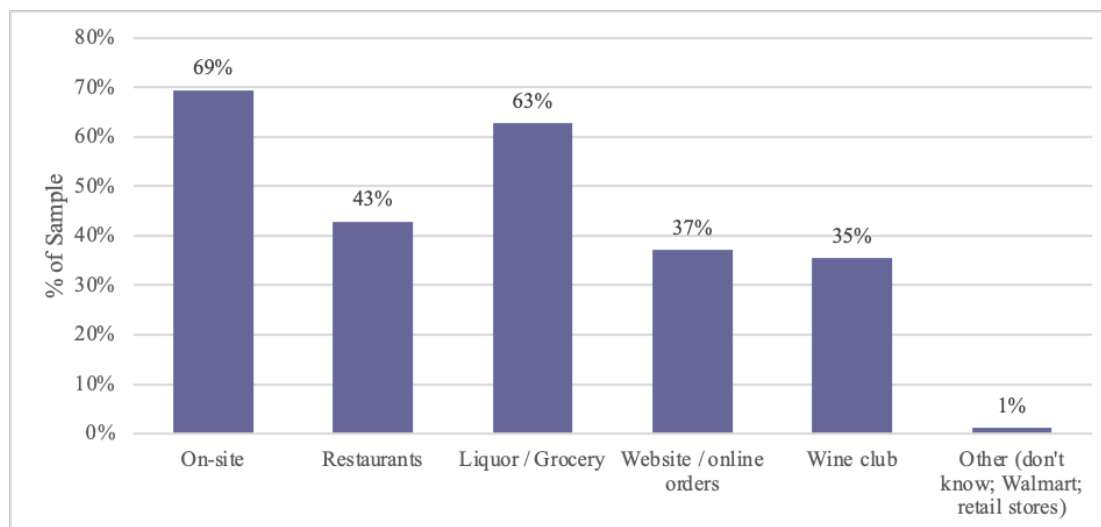


Figure 28. Anticipated Purchasing Location for QAP Wines (n=1,216)

Beyond anticipated retail locations, participants were also asked about expected information sources about QAPs (Figure 29). (Again, participants could select multiple answer options, so the responses do not total 100 percent.) Most participants indicated they anticipated receiving/finding QAP information on-site (66 percent) or through Google searches (56 percent). The next most popular source was wine magazines/journals (44 percent), followed by wineries' social media pages (41 percent), liquor or grocery stores (32 percent), or third-party certifier's websites (31 percent). Fewer participants anticipated learning about QAPs at restaurants (22 percent) and 1 percent indicated "other."

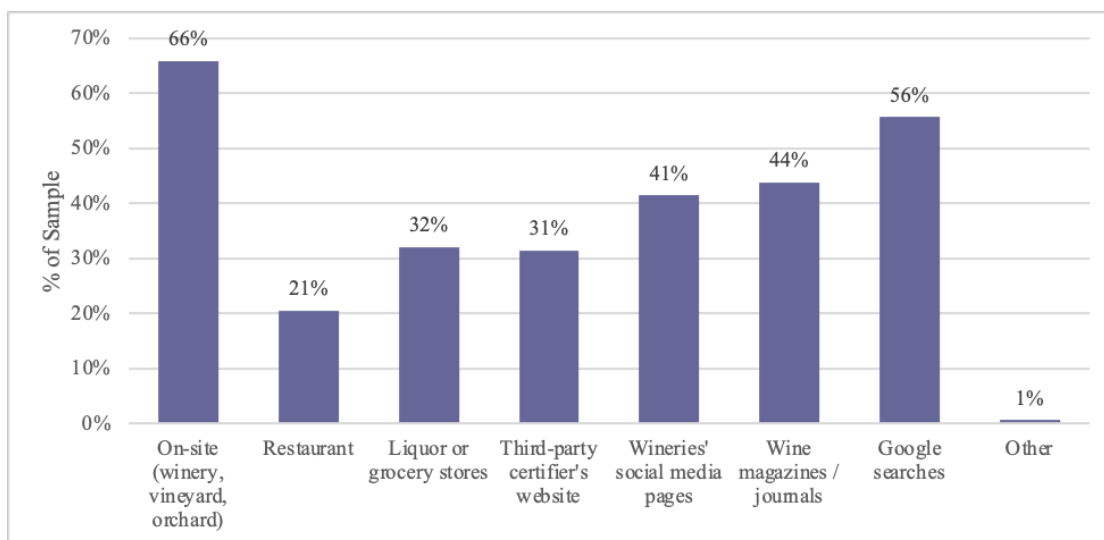


Figure 29. *Expected Sources of Wine QAP Information (n=1,216)*

The potential impact of a QAP on consumer preferences and perceptions of Tennessee wine was also explored. In general, 47 percent of the sample indicated that the presence of a QAP would positively impact their purchase likelihood for a Tennessee wine, 49 percent said it would have no impact, and 4 percent indicated a decrease in purchase likelihood (Figure 30). Regarding perceptions of QAPs impact on the Tennessee wine industry, participants agreed that a QAP would be a good way to grow the Tennessee wine market and help them understand more about Tennessee wine (Figure 31). They also agreed that they would be more likely to give a QAP Tennessee wine, willing to try a greater variety of Tennessee wines if they had a QAP, and that QAPs could increase their interest in buying a Tennessee wine. They agreed that they would be more likely to serve a QAP Tennessee wine at an event.

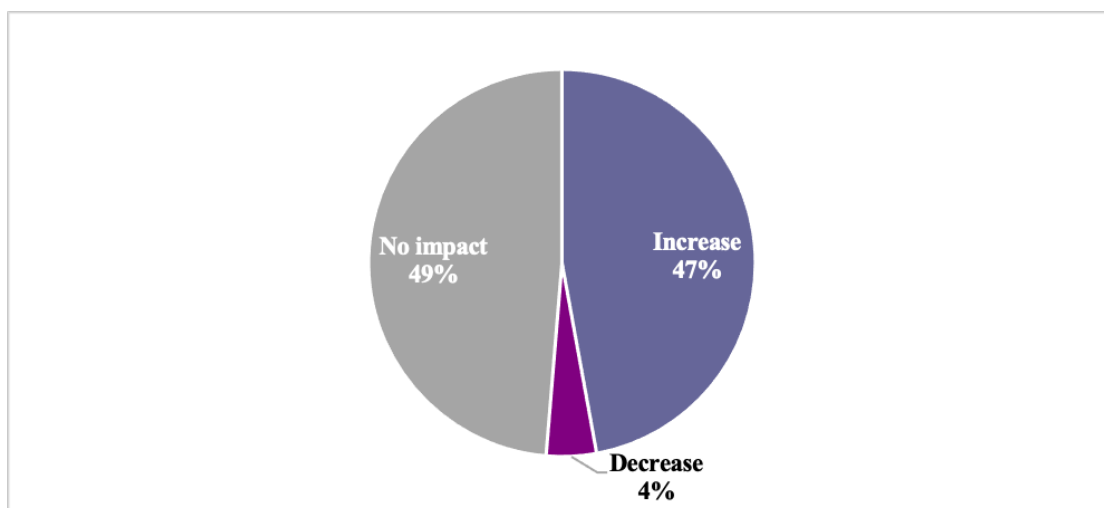


Figure 30. *The Impact of a QAP on Consumers' Purchase Likelihood of Tennessee Wines (n=1,216)*

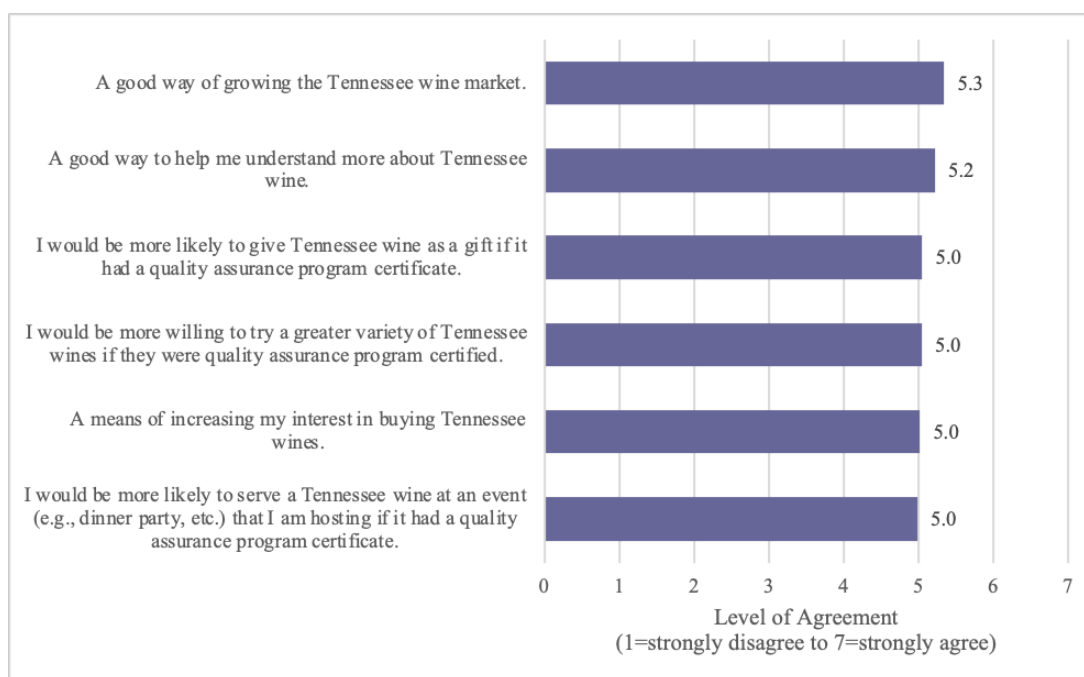


Figure 31. Participants' Average Agreement Levels for Perceptions of QAPs and Tennessee Wines (n=1,216)

Participants also completed a choice experiment where they were given a choice between two wine options with different attributes or neither wine. Each wine had one of five prices (from \$12.50 - \$32.50), a red or white color, a QAP (designated as a “University-based QAP”) or not, Tennessee or “other state (not Tennessee)” designation, and a sweetness description (dry, semi-dry, sweet or semi-sweet). Each participant completed 16 choice sets. For an example scenario, please see Figure 32. The data was analyzed to estimate participants’ willingness-to-pay for those wine attributes over the base attributes. For analysis, red color, no QAP, other origin and dry were the bases for comparison. Participants were willing to pay \$2.27 more for a white wine than a red wine (Figure 33). Tennessee wines generated an \$11.01 premium over wines from other origins. Compared to dry wines, sweet wines generated the highest value at \$24.18, followed by semi-sweet wines at \$17.95, and semi-dry wines at \$5.26.



			
Quality Assurance Program (QAP)	No QAP	University-based QAP	
Origin:	Other state (not TN)	Tennessee (TN)	
Color:	Red	White	
Sweetness:	Semi-dry	Semi-dry	Neither Option
	\$16.50	\$20.50	
I would choose:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 32. Example Choice Experiment Scenario

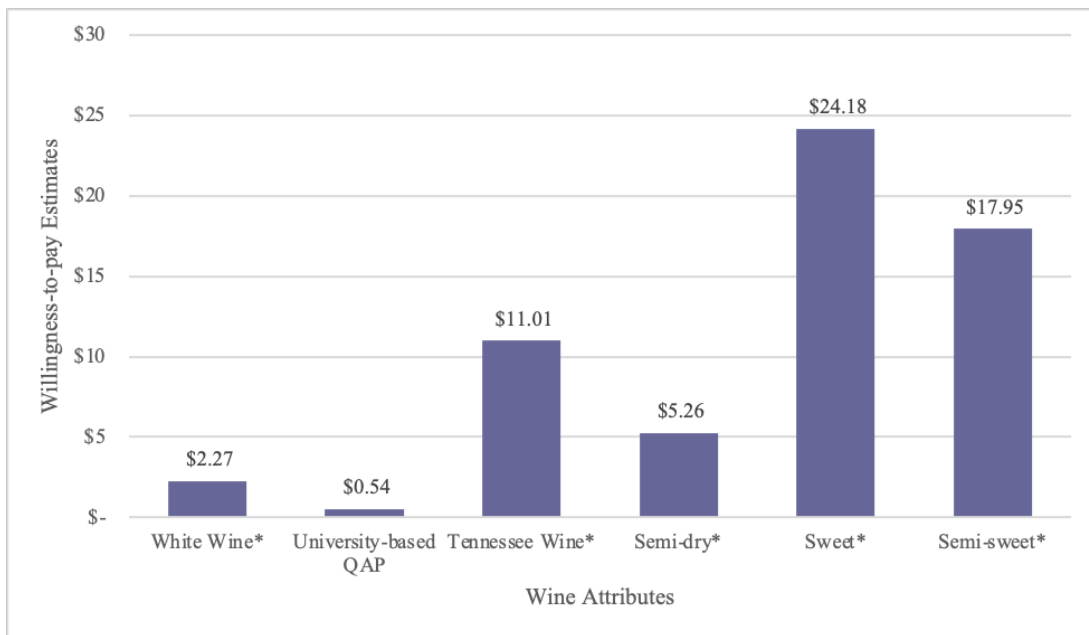


Figure 33. Choice Experiment Estimates Demonstrating Participants' Willingness-to-pay for Different Wine Attributes (n=1,216)

* Indicates statistically significant difference at the 1 percent level from the base levels (red wine, no QAP, other origin, dry).

Section 9: Summary and Recommendations

This report summarizes a 2021 study addressing U.S. consumers' perceptions of Tennessee and local wines while exploring the potential to use a QAP to market those products. Overall, the results imply that U.S. consumers are enthusiastic about local Tennessee wines, and there is an opportunity for Tennessee to build a local wine market. Findings can be leveraged to build the Tennessee brand image and increase overall awareness of Tennessee wines amongst in-state and out-of-state guests. Based on these findings, several recommendations were developed, including:

1. Actions can be taken to increase awareness of Tennessee wines, wineries, wine trails and so forth. Increasing awareness among in-state and out-of-state consumers increases demand and sales. Many participants indicated associating Tennessee trips with visiting family/friends, meaning an increase in awareness and participation among in-state consumers could also draw in out-of-state guests. QAPs may serve as a supporting element when generating a consistent wine origin reputation or brand. If the area's wine reputation increases and maintains a consistent quality, that decreases consumers' risks when purchasing or trying the wines, which can lead to improved customer loyalty and repeat purchases/visits.
2. Although it is already occurring to some extent, wineries' locations can be further strategically leveraged to increase attraction for visitors. For instance, the second most cited reason for visiting Tennessee was nature tourism (behind visiting family/friends). Locating the winery or having wine tastings available near or on the way to these attractions could increase visibility, availability, access and awareness of the wines/winery. Similarly, participants indicated the number of wineries in an area impacts their choice to travel to that area for a daytrip. The optimal number of wineries was 2-3. If wineries could partner in planning their locations to establish additional winery clusters or set up satellite locations to increase the number of unique wines available in an area, that could improve the number of visitors that visit the area. These results support the ongoing efforts to further develop regional wine trails in the state. Wineries could also consider offering seasonal, trial or small batch options that improve the attractiveness of the destination. Other value-added options (e.g., food vendors, craft beer, entertainment, etc.) also improved visit likelihood to wineries.
3. Wine QAPs are important but their source affects their effectiveness in attracting consumers. Consumers are more receptive to QAPs from wine industry associations or wineries themselves rather than agencies outside of the industry. For instance, national and state wine associations were deemed as having the most positive impact on wine purchasing behavior. However, a university-based QAP does not impact wine choice, rather the sweetness and origin of the wine influenced choice. The preference for specific QAP sources likely implies that consumers perceive industry sources as more knowledgeable and more able to identify quality than less associated firms. These results indicate a need for QAPs to be industry-led in order to be the most effective.
4. The expected retail source of Tennessee wines and QAP wines provide interesting options for the industry to consider in terms of availability. There is some potential to increase availability to end consumers by having more Tennessee wines available through liquor/grocery stores or online ordering if there is an adequate supply of wines to meet demand and any additional costs, especially retail and wholesale marketing margins, associated with selling wines through these channels is offset through increased sales. The liquor/grocery store option is probably most feasible for larger wineries. Alternatively, there is an opportunity to create an exclusive image through limited wine availability where the wines are solely available on-site and closely aligned channels (e.g., the winery's website or wine club). Marketing and promotions could be used to engage and inform consumers about these elite options that are of limited availability and only available through select avenues.

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