Virginia Cooperative Extension

PUBLICATION AAEC-29P

A Comparative Analysis Between Virginia's and North Carolina's Wine Industries

Gustavo Ferreira, Instructor, Agricultural and Applied Economics, Virginia Tech

The Economic Impact of the Wine Industry in the United States

The economic importance of the grape and wine sector has increased in recent decades and, in 2007, the U.S. wine, grape, and grape product had an estimated $162 billion economic impact on the American economy. The sector also accounted for more than 1 million jobs in the U.S., for a payroll of almost $33 billion (MFK 2007). Today, the grape and wine production is spread across all 50 states, and is carried primarily by family and multigenerational businesses. However, California, alone, accounts for close to 90 percent of total U.S. wine production.

Unlike what has been happening in other parts of the world, the U.S. wine industry has witnessed consistent growth on both the supply and demand sides. From 1999 to 2007, the national number of bounded wineries increased by 83 percent, to 4,929 from 2,688. Furthermore, the sales of domestic wine accounted for nearly two-thirds of the 2005 total sales of wine in the U.S.

In terms of international trade, though, the U.S. still plays a relatively modest role, exporting 35 percent of its grapes and 6 percent of its wine (MFK 2007). On the demand side, the U.S. has been the only major growing market for mid-priced and more expensive wines. In 2010, a total of 784 million gallons were consumed in the U.S. compared to 267 million in 1970. The wine per capita consumption in the U.S. jumped to 2.54 gallons in 2010 from 1.31 gallons in 1970 (Wine Institute 2011). These positive trends indicate that the U.S. still is an appealing and promising market for domestic wine producers despite the current saturation in the world wine market.

Wine grapes produced in the U.S. can be broadly categorized in three different groups: (1) *Vitis vinifera* 3/4 the traditional European wine grape; (2) V. labrusca 3/4 wine grapes native to the North American continent; and (3) interspecific hybrid grapes. Table 1 shows that grapes are the highest value fruit crop produced in the U.S. However, the industry often goes through surplus and shortage cycles and it is characterized by high volatility and price swings. For example, during times where the demand for specific wine grapes far exceeds supply, prices will soar. Producers will respond by increasing production of those particular grapes. At one point in time, supply will exceed demand. Grape prices will fall, sending a signal to producers that they need to reduce production of those grapes. This will likely lead to another shortage in the future and a similar cycle will start over again.

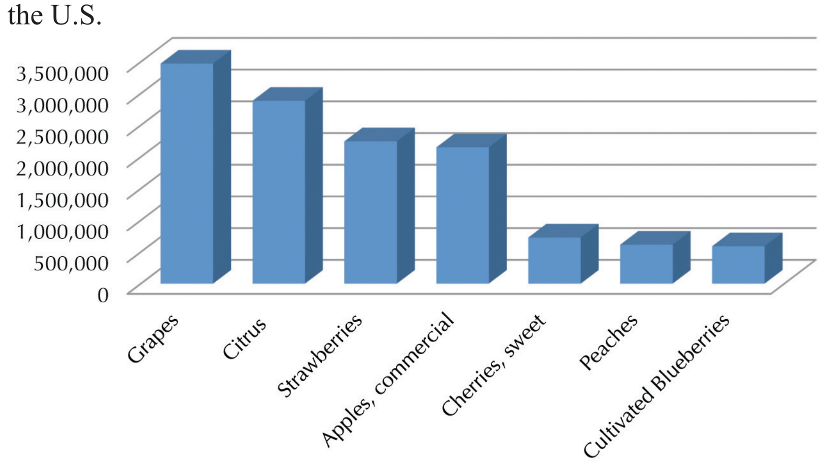

Figure 1. Value of production by major fruit in the US, 2010 (thousands of U.S. dollars).

Source: National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture.

Produced by Communications and Marketing, College of Agriculture and Life Sciences, Virginia Polytechnic Institute and State University, 2012

Virginia Tech Invent the Future

Virginia State

VT/0112/AAEC-29P

An Overview of the Wine Industry in Virginia and North Carolina

Virginia's wine industry dates back to the early 17th century at the Jamestown Colony, and continued with the efforts of Thomas Jefferson, George Washington, and James Madison to promote the development of an American wine industry. The number of wineries and production of wine has been steadily growing, particularly since the mid-1990s. Virginia has a major competitive advantage over North Carolina, namely its geographic proximity to affluent and densely populated areas that include Washington, D.C., Richmond, and Norfolk/Virginia Beach. Virginia wine producers should fully explore these market opportunities and be ready to meet increases in the demand for wine in these areas.

In North Carolina, commercial wine consumption and wine production can be traced back to the state's first winery in Halifax County that grew a native Muscadine varietal (Scuppernong). It was not until the early 1970s that Vinifera grapes began to be planted for wine production in North Carolina (MFK 2005).

In both Virginia and North Carolina, increasing wine production has contributed to the diversification of agriculture and local economies, employment creation, and the development of new market opportunities in rural communities. This has been particularly important for areas that suffered from a change in market structure, resulting in the decline of traditional crops — tobacco and apples ¾ and changes in farming practices. For instance, starting in 1999, North Carolina's Golden LEAF Foundation has supported those farmers who wanted to shift from tobacco to wine production (MFK 2005).

The wine industries of Virginia and North Carolina are comparable because they share many similar challenges and opportunities in addition to their close proximity. This paper does a comparative analysis of the wine industry in both states by looking at four specific issues: (1) grape varieties and viticultural areas in both states; (2) marketing and distribution issues; (3) wine-related tourism; and (4) shortages of skilled labor.

A Comparison of the Virginia and North Carolina Wine Industries

Both states are located on the East Coast and, despite recent expansion of their wine industries, they can be considered "peripheral" and "regional" given their volume of production (Raper 2008). Virginia is home to 192 wineries while North Carolina has 104 wineries. This represents a significant increase compared to 2005, when there were 107 and 55, respectively.In both cases, most of their wineries are characterized as small-scale producers (producing less than 5,000 cases per year). Based on data from the Alcohol and Tobacco and Tax Trade Bureau (TTB), figure 2 shows how Virginia produced slightly more bulk wine than North Carolina until 2007. Since that year, North Carolina's wineries have outperformed Virginia's, and North Carolina has managed to climb up a few positions in the national ranking of wine-producing states. In 2010, North Carolina ranked 8th and Virginia 13th in terms

Figure 2. Production of bulk wine in Virginia and North Carolina (Gallons).

Source: Author's own calculations using data from the Alcohol and Tobacco Tax and Trade Bureau.

of production of bulk wine. For the same year, North Carolina ranked 9th at the national level in the production of bottled wine, while Virginia ranked 15th. These figures indicate sustained growth of the wine industry in both states for the last two decades. However, they also show that North Carolina has experienced a more rapid growth that allowed its industry to catch up and actually surpass Virginia's.

Grape Varietal, Viticultural Areas

Both regions rely heavily on the production of varieties of red (Cabernet Franc, Merlot, and Cabernet Sauvignon) and white (Chardonnay, Vidal blanc, and Viognier) grapes. North Carolina also produces a noteworthy quantity of native grape varieties (Muscadine, Norton, and Niagara) that favor the hot and humid weather of North Carolina's coastal region, and tend to be more resistant to disease of grapevines, such as the Pierce's Disease (MFK 2005).

Many wineries in the U.S. struggle financially, in part, because of the lack of a varietal focus. Wineries that produce different grapes and wines ¾ in an attempt to reach a broader customer base ¾ may not be able to concentrate their limited resources on a specific product and then develop expertise and a marketing image (MFK 2007). For example, Oregon has successfully pursued a long-term grape and wine specialization strategy with the Pinot Noir and Pinot Gris varieties, and it seems reasonable to argue that North Carolina and Virginia would benefit from taking a similar approach. According to a study, Virginia has been fairly successful in building up a wine identity via varieties that perform particularly well, such as Viognier and Cabernet Franc (MFK 2007).

As table 1 shows, both North Carolina and Virginia have a number of wine producing regions that have been designated as American Viticulture Areas (AVA). More specifically, the TTB has approved six viticultural areas in Virginia since the mid-80s and, more recently, it recognized three areas in North Carolina. In Virginia, most of the wineries are located in the Northern Virginia region, the Shenandoah Valley, and the Monticello AVAs. In North Carolina, there is a significant concentration of wineries in the Yadkin Valley and Swan Creek AVAs, which includes the Western and Piedmont regions of the state. Finally, North Carolina and Virginia are characterized by relatively high costs in the production of Vinifera because of the small volume produced and the expenses associated with wine grape cultivation in this region.

Table 1. List of American viticultural areas approved by the Alcohol and Tobacco Tax and Trade Bureau in North Carolina and Virginia

State	Name	Effective Date
North Carolina	Haw River Valley	2009
	Swan Creek	2009
	Yadkin Valley	2003
Virginia	Virginia's Eastern Shore	1991
	Rocky Knob	1987
	North Fork of Roanoke	1987
	Northern Neck George Washington Birthplace	1987
	Shenandoah Valley	1987
	Monticello	1984

Source: Alcohol and Tobacco Tax and Trade Bureau.

Marketing and Distribution

The alcoholic beverage industry and the sales of wine in the U.S. are ruled by a series of complex regulations and structures that vary by state. This system is commonly known as the "three-tier system," in which wineries sell to licensed distributors who, in turn, sell to retail or restaurant outlets. The three-tier system represents a major obstacle to smaller wineries that normally do not produce enough quantity to convince wine distributors to commercialize their products, especially in today's overcrowded wine market. Also, this system may be too expensive for smaller wineries because they typically have to sell their products to a distributor for 50 percent of the retail price. In contrast, wineries receive the full retail value when selling in tasting rooms, and between 65 and 80 percent of the final retail price when selling directly to a restaurant or retail outlet (MFK 2007).

In 1980, Virginia's General Assembly adopted a series of measures to give Virginia wineries the right to bypass the three-tier system, allowing them to self-distribute their products. Such a system was very favorable for small and family-owned wineries; they could sell their bottles directly to restaurants and retail outlets without the need of middlemen. However, in 2005, an adverse federal court opinion ended this self-distribution system. Effective in July of 2006, it was illegal for small and family-owned wineries to self-distribute their products. In an effort to help small producers, the General

Assembly in 2007 came up with an alternative scheme and passed legislation that allows the Virginia Department of Agriculture and Consumer Services to serve as a wholesaler. More specifically, the Virginia Winery Distribution Company 3/4 a nonprofit, nonstock corporation 3/4 was created to provide wholesale wine distribution services for Virginia farm wineries. Today, more than 100 wineries use this organization to distribute as many as 3,000 cases of their wines each year to retail and restaurant outlets.

In contrast, the North Carolina General Assembly passed five laws in 2005 that streamlined distribution, allowing wineries to ship their products directly to consumers, both in and out of state. Consequently, North Carolina's wineries can choose between self-distribution, selling wine directly to restaurant or retail stores, or they can use distributors (Ofori-Boady et al. 2010). Such flexibility has been vital in the development of direct marketing strategies within established businesses, and opened the market for new smaller wineries. For larger wineries, this is not a critical issue because they often use distributors to market their wine.

In summary, smaller wineries in Virginia are at a clear disadvantage with respect to their peers in North Carolina. Many cannot afford to receive as little as 50 percent of the retail price, or they are too small in volume to distribute into the wider marketplace. In the past, Virginia wineries have relied on wine festivals to sell their wine directly to consumers. However, even this market has become crowded with new competitors, making it more difficult for wineries to get included in the festivals or to differentiate themselves (MFK 2007).

Wine Tourism

Wine-related recreational activities have been a growing industry in the past decade, and wineries have proven to be important players in the tourism industry as they became effective magnets for tourists. Increasing numbers of visitors to wineries will likely support other local businesses, such as hotels, bed & breakfasts, restaurants, and other shops (MFK 2007). Wine tourism is significant, not only in terms of promotion and marketing, but most importantly, it is a necessary tool for financial survival of many small wineries. This is because direct sales from the tasting rooms and gift shops are a major source of income to the industry. A 2007 national survey sponsored by the Travel Industry Association (TIA), in partnership with Gourmet magazine and the International Culinary Tourism Association (ICTA), ranked North Carolina and Virginia in the top-12 destinations for wine-related travel, although North Carolina ranked slightly higher than Virginia (TIA 2007).

The promotion of wine tourism in North Carolina has been quite effective. In 2005, at least 800,000 tourists visited the state's wineries (MFK 2005). Moreover, the promotion of wine tourism in North Carolina can count on a very recognizable name, the Biltmore Estate, which is the most-visited winery in the U.S. (Franson 2004).

Data on the number of visitors to Virginia wineries were not available, but in 2008, the state spent $387,000 to market its wine (Raper 2008). The wineries located in the northern part of the state should benefit from their proximity to the Washington, D.C., metro area, which includes parts of Maryland and Northern Virginia. This area has more than 5 million residents and includes population segments with higher than average income levels. Hence, Northern Virginia wineries should strive toward attracting consumers from this market to their tasting rooms and develop strong marketing relationships with restaurants and retail stores in the metro area. One study indicated that many wineries in Virginia struggle to attract a significant number of visitors because of the lack of concentration of wineries (MFK 2007). In North Carolina, the high concentration of wineries in the Yadkin Valley and the Swan Creek areas reduces the travelling distances for tourists who plan to visit several wineries in a specific period of time.

There is little doubt that both states should strongly support wine tourism activities in order to increase the number of visitors to their respective wineries, which would increase direct sales to consumers.

Shortage of Skilled Labor Force

Finally, as vineyard acreage increases in both states, producers have had to deal with a lack of trained and skilled labor (e.g., viticulturalists and winemakers). This problem has become a major challenge for vineyard management, and wineries often end up hiring professionals from other states. Both states made efforts to overcome this problem and invested in the creation of new education programs in universities and community colleges.

Since 2000, North Carolina developed a program at Surry Community College and, more recently, set up viticulture and enology programs at North Carolina

State University and Appalachian State University (MFK 2005). In Virginia, the Wine/Enology-Grape Chemistry Group at Virginia Tech supports the growth and development of Virginia's wine industry through teaching, Extension, and research. This group also trains prospective industry members through undergraduate and graduate programs and an internship program. Virginia Tech also has an Agricultural Research and Extension Center in Winchester (Frederick County) that has been working on sustainable vineyard management practices, management of grapevine vegetative growth, and variety evaluation.

As a short-term solution to the labor shortage problem, different parties in the local wine industry may encourage the dissemination of knowledge and experiences within wineries and further develop workshops, seminars, and roundtable discussions. This strategy could strengthen existing synergies that may help the owners of smaller wineries 3/4 who do not have the resources to hire professionals from out of state 3/4 to acquire important production and management skills.

Conclusion

The wine industries in North Carolina and Virginia are quite similar in several areas, and they face common challenges. In Virginia, smaller wineries may need to press for a more favorable distribution system that would allow them to obtain reasonable profit margins and reach larger markets. Moreover, Virginia should also push for the development of additional educational programs to prepare skilled professionals to work in the industry.

The wine industry in North Carolina could benefit from a shift in production toward very specific varieties that perform well in the region. This would be an important step in building a wine identity. Finally, wine tourism in North Carolina and Virginia should continue to be promoted via nationwide marketing campaigns and through the creation of recognizable "wine routes." This can only be achieved with the involvement of hotels, travel agencies, bed & breakfasts, and state and local government officials.

References

Alcohol and Tobacco Tax and Trade Bureau (TTB). 2011. *Statistical Report – Wine*. Reporting Period: January 1985 – December 2010. Washington, D.C.: TTB. Available at http://www.ttb.gov/wine/wine-stats.shtml.

Franson, Paul. 2004. Biltmore Estate Winery: America's Most Visited. *Wines & Vines,* November 2004. Available at http://findarticles.com/p/articles/mi_m3488/is_11_85/ai_n8576708/.

MFK Research LLC. 2005. *Economic Impact of North Carolina Wine and Grapes*. Helena, Calif.: MFK Research.

MFK Research LLC, 2007. *Assessment of the Profitability and Viability of Virginia Wineries*. Unnumbered research publication presented to the Secretary of Agriculture and Forestry of Virginia. Helena, Calif.: MFK Research.

MFK Research LLC. 2007. *The Impact of Wine, Grapes and Grape Products on the American Economy 2007: Family Businesses Building Value.* Helena, Calif.: MFK Research.

Ofori-Boady, V., O. Yeboah, J. Bhadury, K. Dobie, S. Troy, and N. C. Williamson. 2010. *The Emergent Vinifera Wine Industry in North Carolina: A Descriptive Overview*. Selected paper presented at the Southern Agricultural Economics Association Annual Meeting, Orlando, Fla., February 2010.

Raper, Jim. 2008. Virginia's Wine Industry Has Matured. *Virginia Business*, October 2008. Available at www.virginiabusiness.com/index.php/news/article/virginias-wine-industry-has-matured/91792/.

U.S. Travel Industry Association (TIA) in partnership with Gourmet and the International Culinary Tourism Association. 2007. *Comprehensive Culinary Travel Survey Provides Insights on Food and Wine Travelers*. Media release Feb. 14, 2007. Available at www.ustravel.org/news/press-releases/comprehensive-culinary-travel-survey-provides-insights-food-and-wine-travelers.

Wine Institute/Gomberg, Fredrikson & Associates. 2011. Wine Consumption in the U.S. *Wine Institute,* April 2011. Available at www.wineinstitute.org/resources/statistics/article86.