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EXTENSION CENTER FOR COMMUNITY VITALITY

Vineyards and Wineries in Illinois

A STATUS AND ECONOMIC CONTRIBUTION REPORT

Authored by: Brigid Tuck, Extension Center for Community Vitality, and William Gartner, Department of Applied Economics



IN PARTNERSHIP WITH: NORTHERN GRAPES PROJECT



Department of
**APPLIED
ECONOMICS**

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May 2014

Authored by: Brigid Tuck and William Gartner

Partners/Sponsors:

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NORTHERN GRAPES PROJECT

The emergence of cold hardy wine grape cultivars (primarily *vitis riparia*) in the 1990s created a new and rapidly expanding industry of small vineyard and winery enterprises in states across New England, northern New York, and the Upper Midwest. While the North American ancestry of these cultivars confers exceptional climatic adaptation and disease resistance, other challenges to production, processing, and marketing have slowed their successful commercialization in regional and national markets. Because their growth habit and fruit composition differ from traditional grape hybrids (i.e. *vitis vinifera*), new viticulture and enological practices are needed. Marketing tools are also required to educate consumers unfamiliar with the grapes and the wine styles they produce. Consequently, the long-term viability of these new businesses requires coordinated research and extension to optimize viticulture, enological (winemaking), business management, and marketing practices. To meet the needs articulated by industry stakeholders, the United States Department of Agriculture funded the Northern Grapes Project.

The Northern Grapes Project brings together researchers, Extension specialists, and industry professionals from 13 states to address viticulture, enological, business management, and marketing issues related to growing cold hardy grapes. After five years, the project teams intend to have accomplished the following goals: 1) production and sales of wines made from cold climate cultivars will have doubled, 2) improved quality resulting from better growing and winemaking practices will have improved customer retention and driven repeat sales, 3) enhanced breeding and cultivar evaluation will have resulted in an accelerated pace of cultivar release, 4) cold climate cultivars will establish unique regional marketing identities in their area, 5) wineries will have understood and applied business and tasting room management practices that drive sales and profitability, and 6) wineries and vineyards will have successfully transitioned from “startup” to “sustainably profitable.”

To measure progress on these goals, one of the first tasks of the project team was to conduct a baseline survey. This survey, sent to grape growers and wineries in the participating states, gathered data on the current status of the grape and wine industries in general and on cold-hardy grape and wine production, specifically. Questions were asked pertaining to sales and production (wineries and vineyards), growing practices (vineyards), and operating practices (wineries).

This document reports the results of the baseline survey for vineyards and wineries in Illinois. It also quantifies the economic contribution of the industries.

During the survey period of the Northern Grapes project, the National Agricultural Statistics Service (NASS) partnered with the Illinois Grape Growers and Vintners Association to conduct a statewide census of the grape and wine industry in Illinois. Potential participants in the Northern Grape study likely received both surveys. While the two surveys did collect similar data, most of the data reported here covers information not collected or published by NASS. Where appropriate in this report, the information collected by NASS will be shared for comparison.¹ By and large, the results of this project reflect the conclusions of the NASS report.

¹ Ward, David (2012). *The Illinois Grape and Wine Industry: Its Current Size, 2011 Production, and Growth*. Illinois: National Agricultural Statistics Service.

VINEYARDS AND WINERIES IN ILLINOIS: EXECUTIVE SUMMARY

- In spring 2012, grape growers and winery owners in 13 states were surveyed under the Northern Grapes Project. Questions asked pertained to sales and production (wineries and vineyards), growing practices (vineyards), and operating practices (wineries). The goal was to establish industry baselines and quantify the economic contribution of the industries. This report presents the results for Illinois.
- In 2011, the total economic contribution of the grape growing and winery industries in Illinois was \$164.3 million. This includes 4,640 jobs and \$59.3 million in labor income. Vineyards contributed \$9.3 million to the total, wineries \$93.7 million, and winery tourists \$61.3 million.
- Cold-hardy grapes, through their production and use in wine, contributed \$94.2 million to the Illinois economy in 2011. The cold-hardy grape industries supported employment for 2,800 people and labor income of \$34.0 million.
- Indications are the vineyard and winery industries in Illinois may be maturing. Rapid growth in the number of new wineries and new vineyards occurred between 2002 and 2007. Since 2007, the number of new operations launching has declined. However, established wineries and vineyards indicate they have and plan to continue to grow.
- In general, vineyards in Illinois are larger in size and production than vineyards in other participating Northern Grapes project states. Consistent with indications of growth in the industry, vineyard operators report 51 percent of their expenditures in 2011 were for capital investments. Pests/insects and disease are rated by vineyard operators as the largest challenges to the future growth and development of Illinois vineyards.
- According to the survey results, cold-hardy varieties increasingly account for grapes being planted in Illinois. White cold-hardy varieties have been planted at a higher rate in the last 5 years as opposed to red cold-hardy varieties. Of the white cold-hardy varieties, La Crescent and La Crosse are planted in the highest numbers. Of the red cold-hardy varieties, Frontenac and Marechal Foch are the most commonly planted. The Marquette grape, released in 2006, is being adopted in Illinois, but not at the rapid rates observed in some of the other Northern Grape project states.
- Tasting rooms and winery visitors are of high importance to the success of Illinois wineries. Wineries rely on traffic through the tasting room for sales. Wineries use special events to help drive customers to their wineries. In support of this, Illinois wineries are collaborating with their local tourism organizations, such as convention and visitors' bureaus.
- Wineries view government policies and regulations and the cost of labor as the two biggest challenges to their future growth and development in Illinois.



SURVEY METHODOLOGY AND RESPONSE RATES

In early 2012, project researchers at the University of Minnesota sent a survey to grape growers and wineries in the participating states. Grower and winery lists were provided to the University of Minnesota by industry associations in each state (see appendix 1 for a list of participating associations). An email was sent to all members of these lists, resulting in 2,746 invitations to participate in the survey. Of these, 501 responded, for an overall response rate of 18 percent. In addition, links to the survey were available allowing individual growers and wineries not directly associated with an industry group, and thus not receiving a direct email invitation, to participate in the survey. These links were also announced during the Northern Grapes Project webinars. The survey links generated 110 responses. Therefore, in total, there were 611 total responses to the survey.

Table 1-1 lists the participating states, the number of wineries and growers invited based on the industry association lists, the number of respondents using the open links, and the response rate. Minnesota has the highest membership totals.² South Dakota had the highest response rate.

The Illinois Grape Growers and Vintners Association, Northern Illinois Wine Growers, and the Scenic Rivers Grape and Wine Association provided e-mail addresses for their memberships. In total, 272 invitations to participate in the survey were sent to potential Illinois growers and wineries. Of those, 52 individuals responded, for a response rate of 19 percent.

State	Total Number of Contacts from Industry Associations	Number of Responses	Response Rates
Connecticut	32	5	16%
Illinois	272	52	19%
Iowa	222	66	30%
Massachusetts	28	10	36%
Michigan	164	36	22%
Minnesota	1,012	167	17%
North Dakota	54	14	26%
Nebraska	172	46	27%
New Hampshire	51	14	27%
New York	202	32	16%
South Dakota	14	11	79%
Vermont	47	18	38%

² Responses were categorized by state the grower or winery owner indicated as the state in which their operation is located.

Wisconsin	476	97	20%
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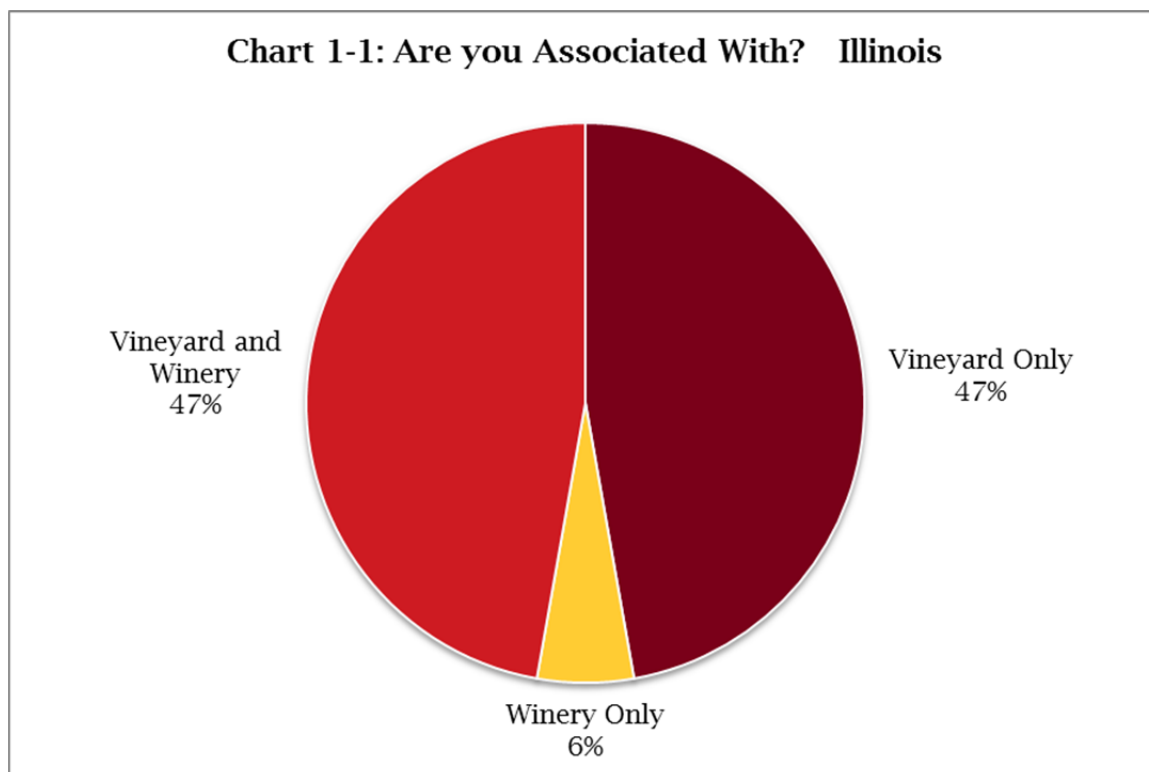
Not all of the survey responses were applicable to the baseline survey. Association memberships are generally open to all interested parties and therefore membership lists include individuals who may be considering growing or producing wine, or individuals who previously grew grapes or produced wines. The lists may also contain people associated with the industry in other capacities than growing and wine-making. Knowing this, the survey was designed to capture basic information on these individuals, even if they did not complete the full survey.

The first survey question asked “Are you associated with....1) a vineyard (past, present, or future), 2) a winery, 3) both, or 4) other. Those responding “other” were directed to the end of the survey.

Those responding “vineyard (past, present, or future)” were asked a follow-up question. Survey takers who indicated they grew grapes in the past or planned to grow grapes in the future were directed to the end of the survey.

The focus of the Northern Grapes Project is on commercial scale grape growers and wineries. Thus, grape growers were asked “Do you grow grapes for commercial sale or use? If you grow grapes exclusively for use in your own winery, answer yes”. Those responding “no” were directed to answer a series of questions about the size of their vineyard and then directed to the end of the survey.

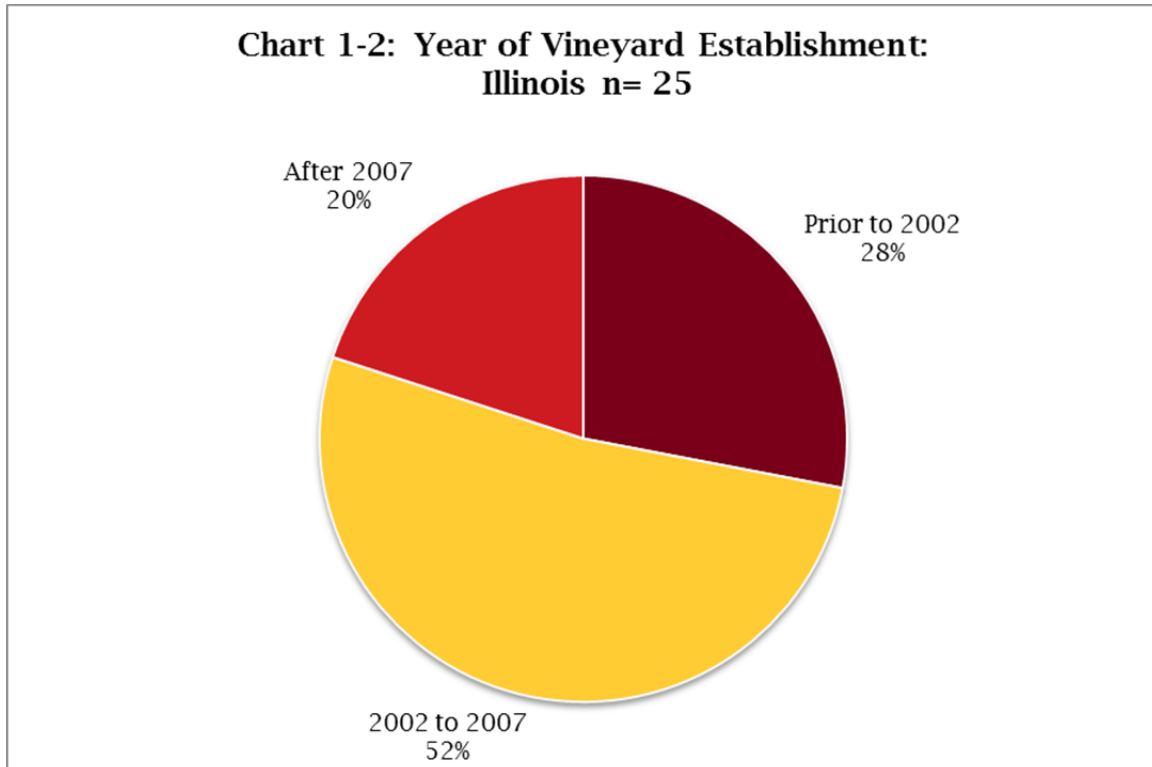
Survey participants could be vineyard operators, winery operators, or operators of a joint vineyard-winery business (see chart 1-1). Forty-seven percent of survey respondents in Illinois operate a vineyard only. Another forty-seven percent operate a joint vineyard and winery operation. Only 6 percent operate a stand-alone winery. In total, the survey includes 19 wineries and 25 vineyards.



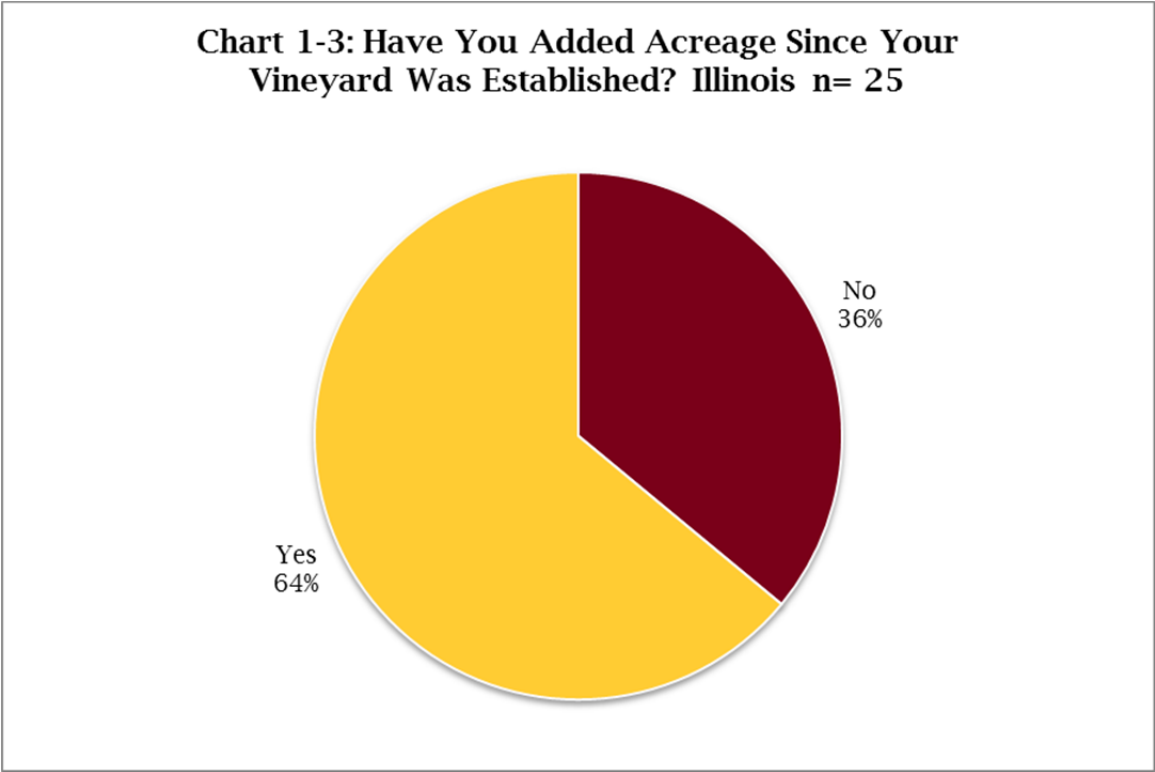
VINEYARD CHARACTERISTICS

Twenty-five respondents indicated they owned and operated a vineyard in Illinois. The National Agricultural Statistics Service (NASS) reports 316 vineyards in the state. Therefore, the response rate for this study is 8 percent, which is relatively low.

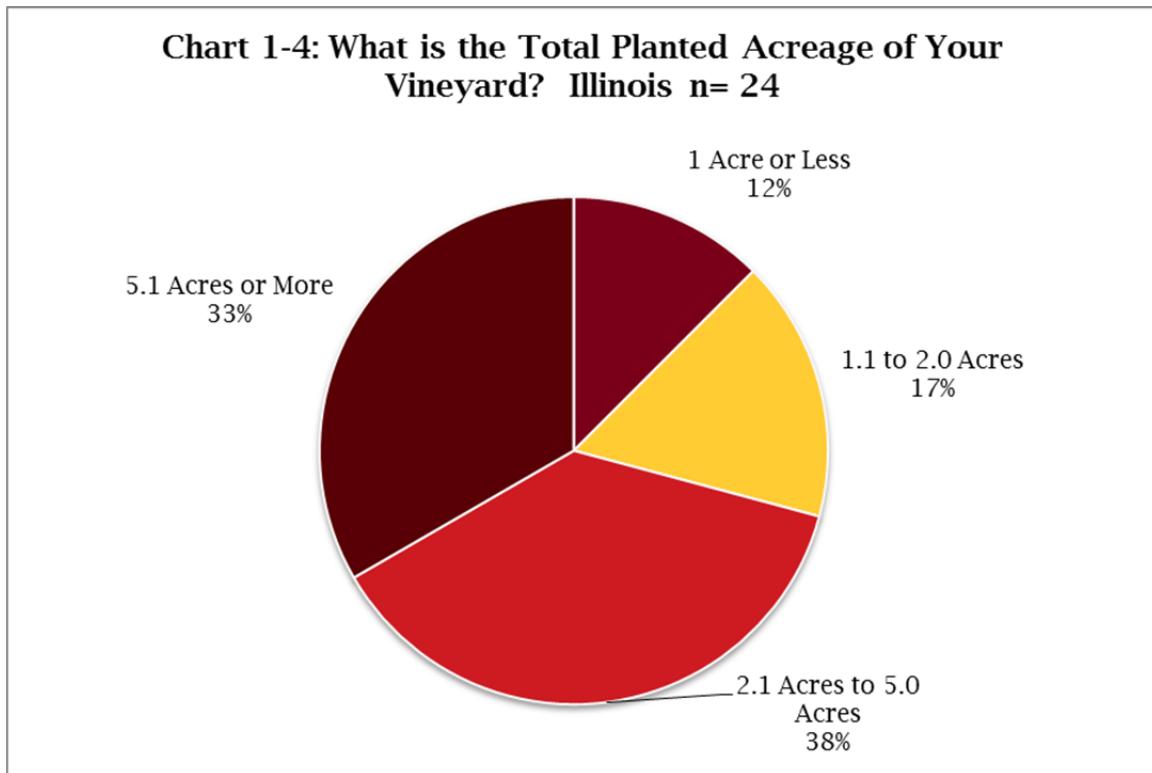
The Northern Grapes Project baseline survey results reinforce the observed trend of rapid growth in the grape growing industry in Illinois (see chart 1-2). More than one of every two responding vineyards was established between 2002 and 2007. The survey results indicate a tapering of growth in Illinois, with only 20 percent of vineyards being planted since 2007.



In addition to new vineyards being established, current vineyards continue to expand their planted acreage. Sixty-four percent of responding vineyards indicated they had planted additional acreage since the original founding of their vineyard, chart 1-3.



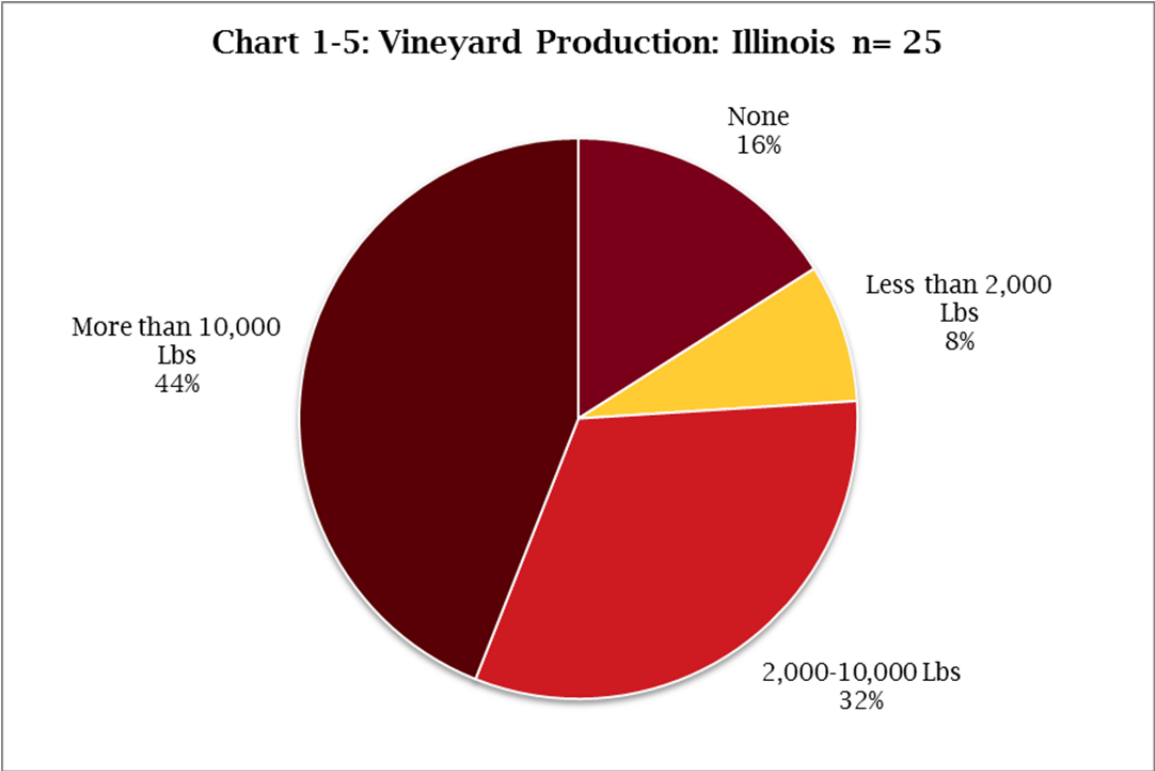
Illinois vineyards responding to the survey are larger than the respondents in other Northern Grape project states. Seventy-one percent of vineyards are larger than 2 acres in size. One-third of all responding vineyards are greater than 5 acres (see chart 1-4). Our survey results, extrapolated out to the entire population of vineyards, indicate there are 1,900 acres planted in grape vines in Illinois.



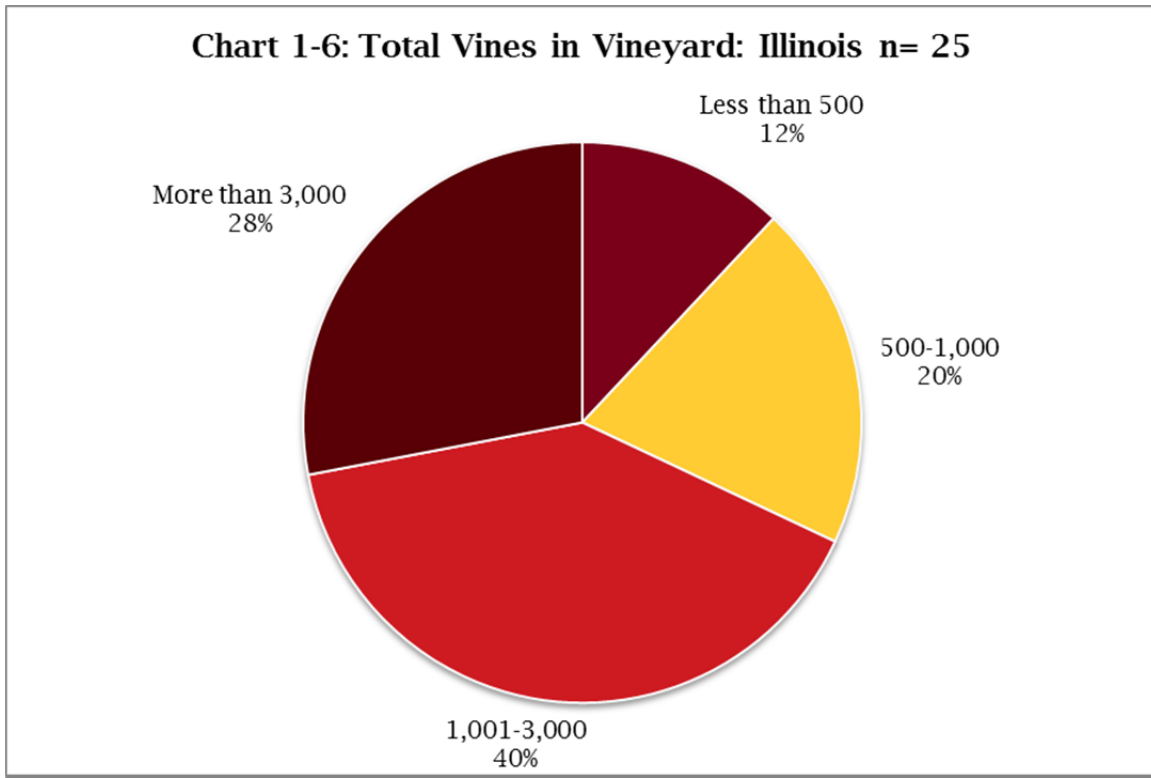
Vineyard production reflects the age of vineyards and the size of vineyards in the survey population (see chart 1-5). Sixteen percent of the vineyards surveyed indicated they did not produce any fruit in 2011. As depicted in chart 1-2, 20 percent of vineyards were planted after 2007, which means they likely have not reached maturity yet. Therefore, it is not surprising they have not produced harvestable fruit. The relatively larger size of the vineyards is also reflected in the production figures, as 44 percent of vineyards produced more than 10,000 pounds of fruit.

Survey results, extrapolated to represent all growers in the state, reveal Illinois grape growers produced approximately 2,890 tons of fruit in 2011. Average yield on producing acreage was 1.8 tons per acre. This yield is lower than expected. It may be that the acreage is just coming into production and has yet to reach its full production potential. Weather, pests, and disease also affect yields.

NASS (Ward 2012) reports there were 1,086 tons of grapes marketed in 2011.

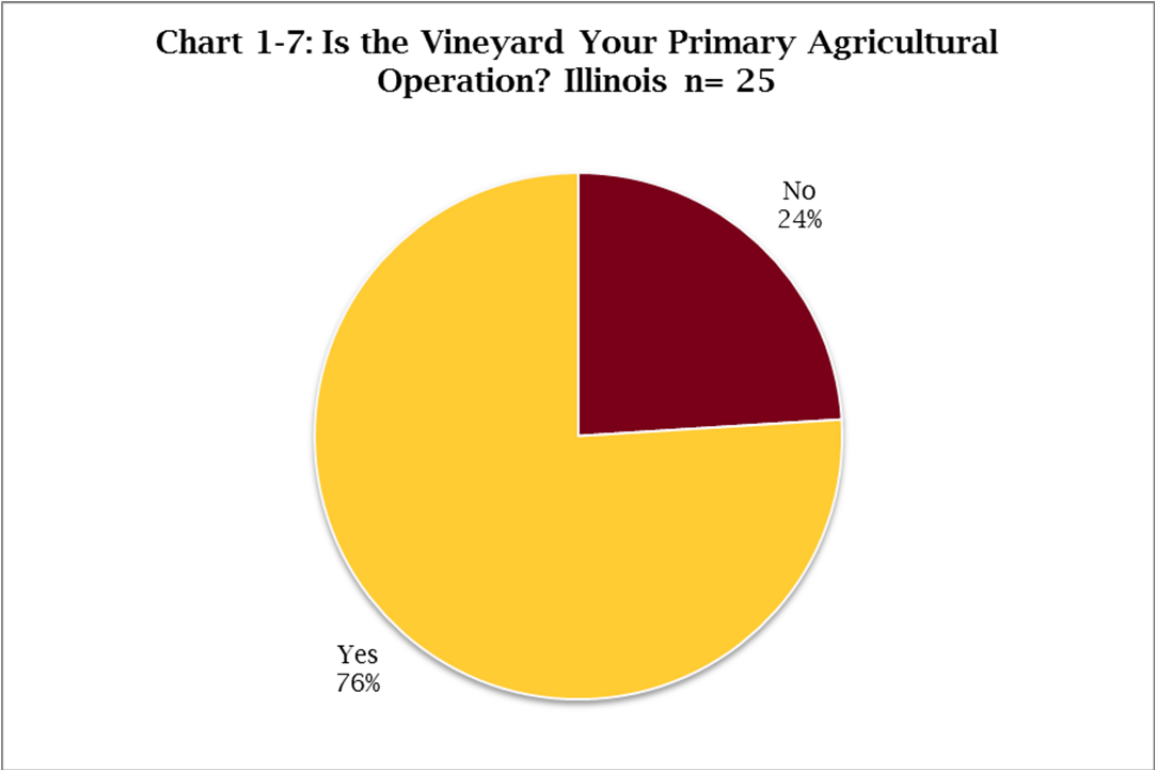


The average participating vineyard has 2,700 planted vines. Forty percent of vineyards have 1,001 to 3,000 vines in the ground, as shown in chart 1-6.



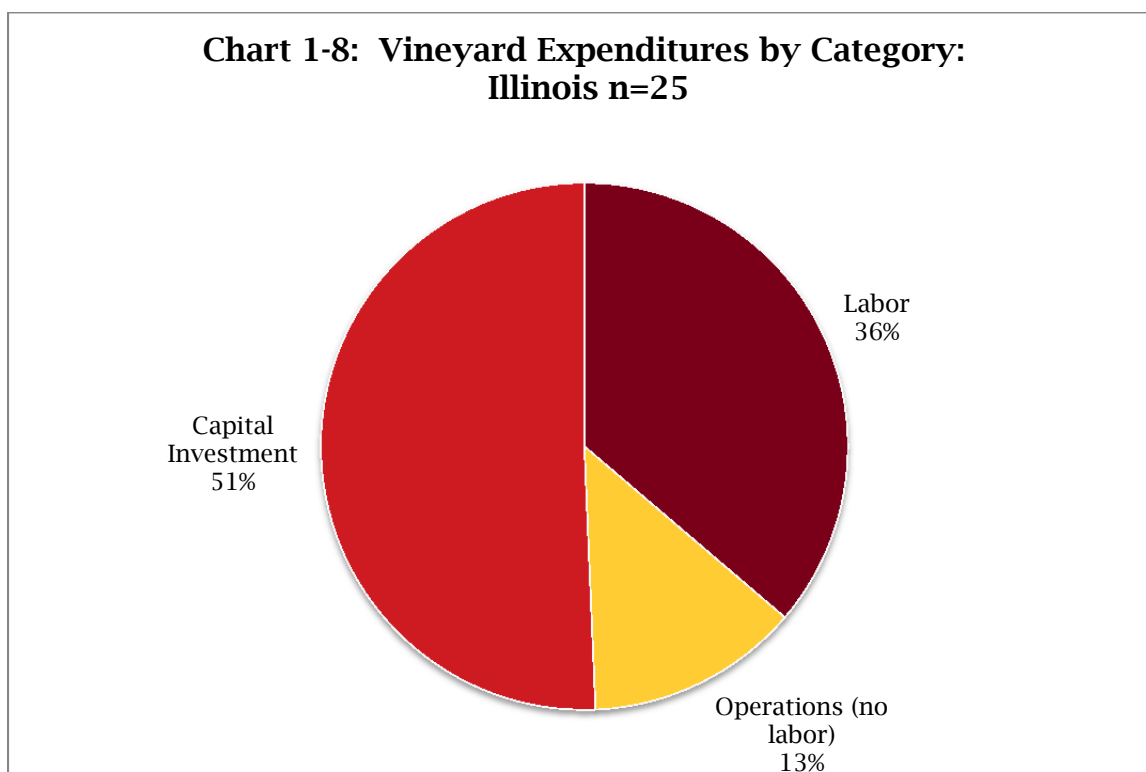
Vineyard Operations

The majority (76 percent) of vineyards operate as stand-alone agriculture enterprises (see chart 1-7). The vineyards who do operate as a secondary agriculture operation indicate conventional farming, particularly of row crops, is their primary operation.

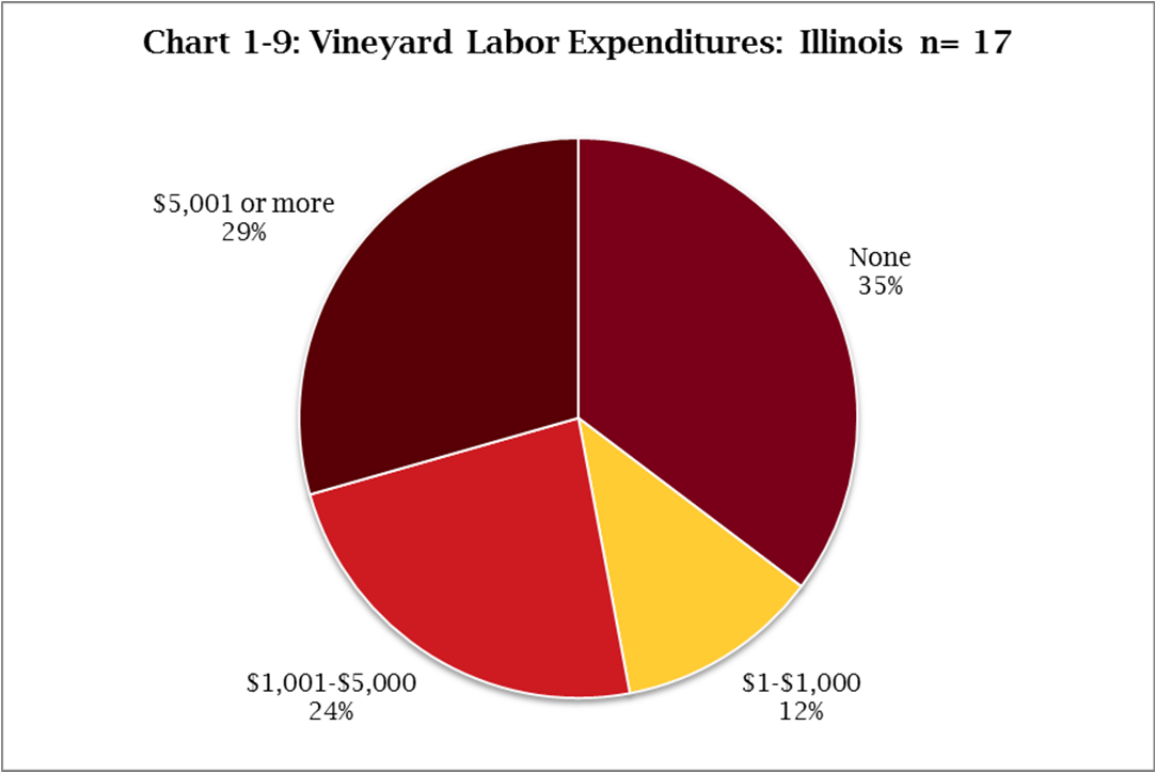


The average responding vineyard in Illinois spent \$14,900 to operate in 2011. Of those expenditures, vineyards made \$7,350 of expenditures for operations (including \$5,400 of labor payments) in 2011. Operating expenses include fertilizers, fungicides, cover crops, water, fuel, overhead costs, marketing, and taxes. Responding vineyards also spent an average of \$7,550 on capital investments, including trellis systems, tractors, crushers, pick-ups, ATV's, and other equipment.

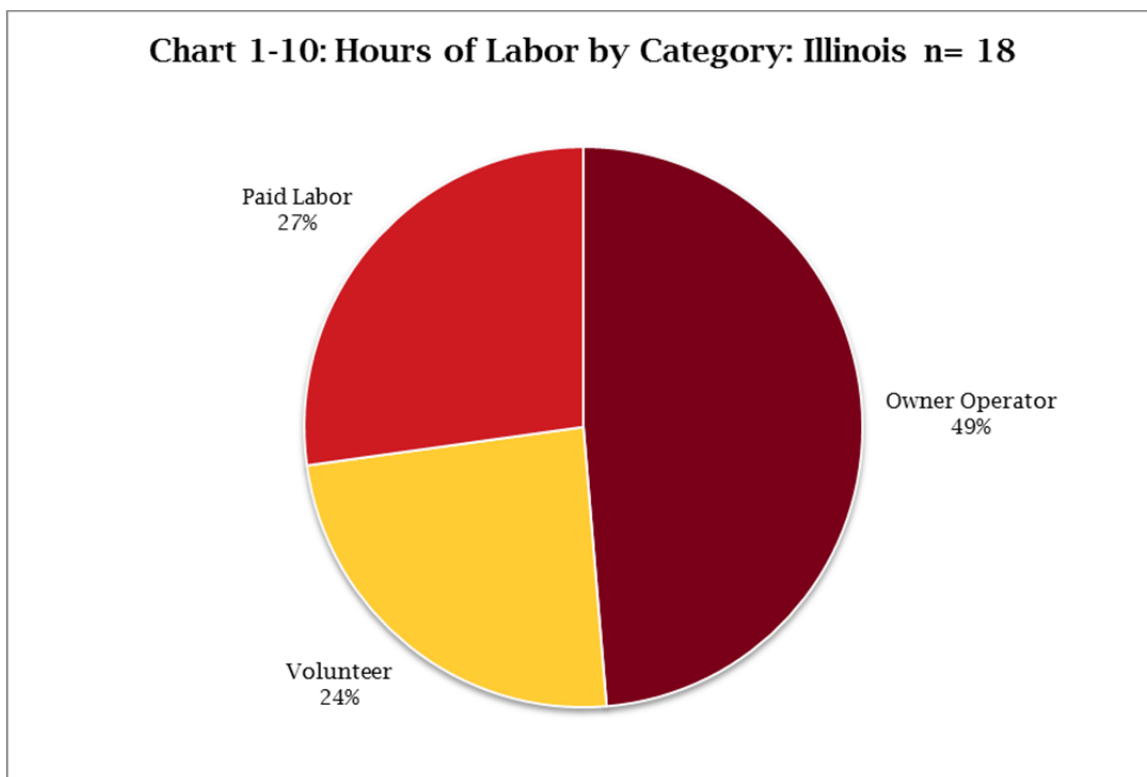
In total, vineyards in the state of Illinois spent \$4.7 million in 2011. Of this, \$2.3 million was spent on operating expenses (includes labor) and \$2.4 million on capital expenditures. Vineyards spent \$1.7 million of the total operating costs on labor expenditures. Roughly half of a vineyard's annual expenditures are spent on capital investments, one-third on labor, and 13 percent on operations (see chart 1-8).



Of the 17 vineyards that responded to the detailed questions regarding labor expenditures, 35 percent reported no expenditures for labor (chart 1-9). This is primarily because the owner/operator did all the labor or the vineyard used volunteer or family labor to complete the vineyard tasks.

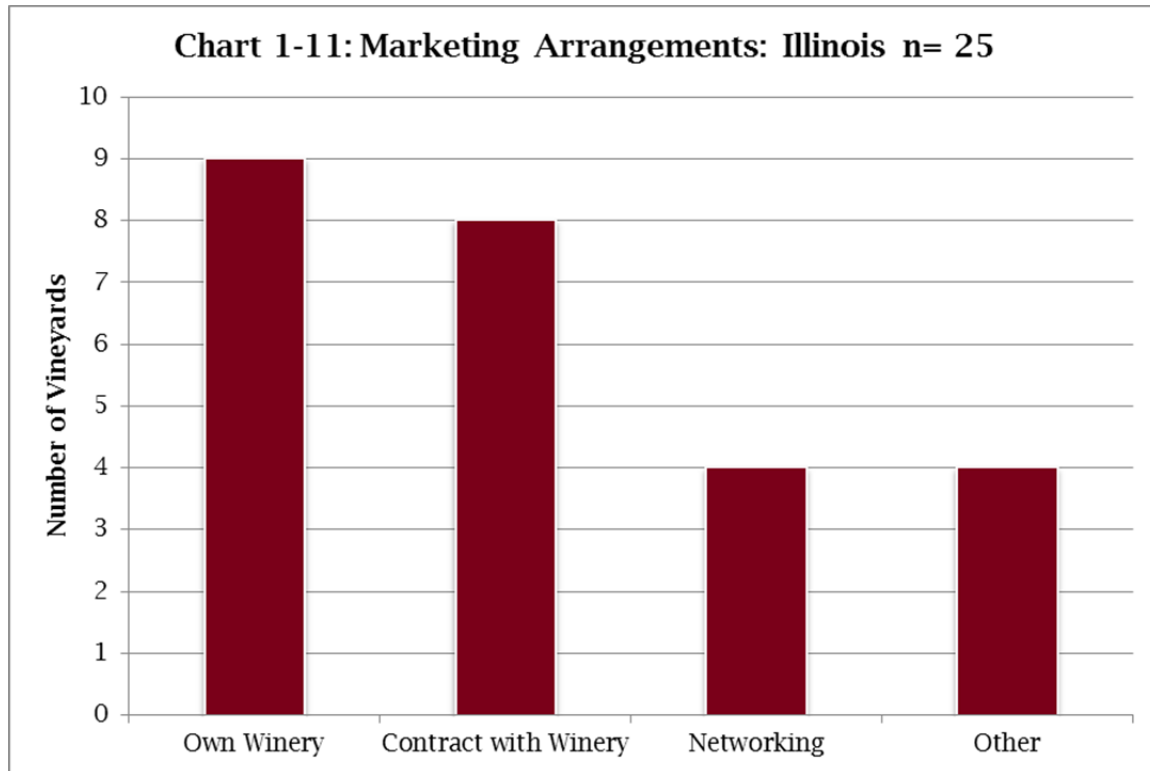


As shown in Chart 1-10, the majority of labor for the responding vineyards was provided by the owner/operator (49 percent). Twenty-seven percent of labor was supplied by paid employees. One quarter of labor hours were provided by volunteers.

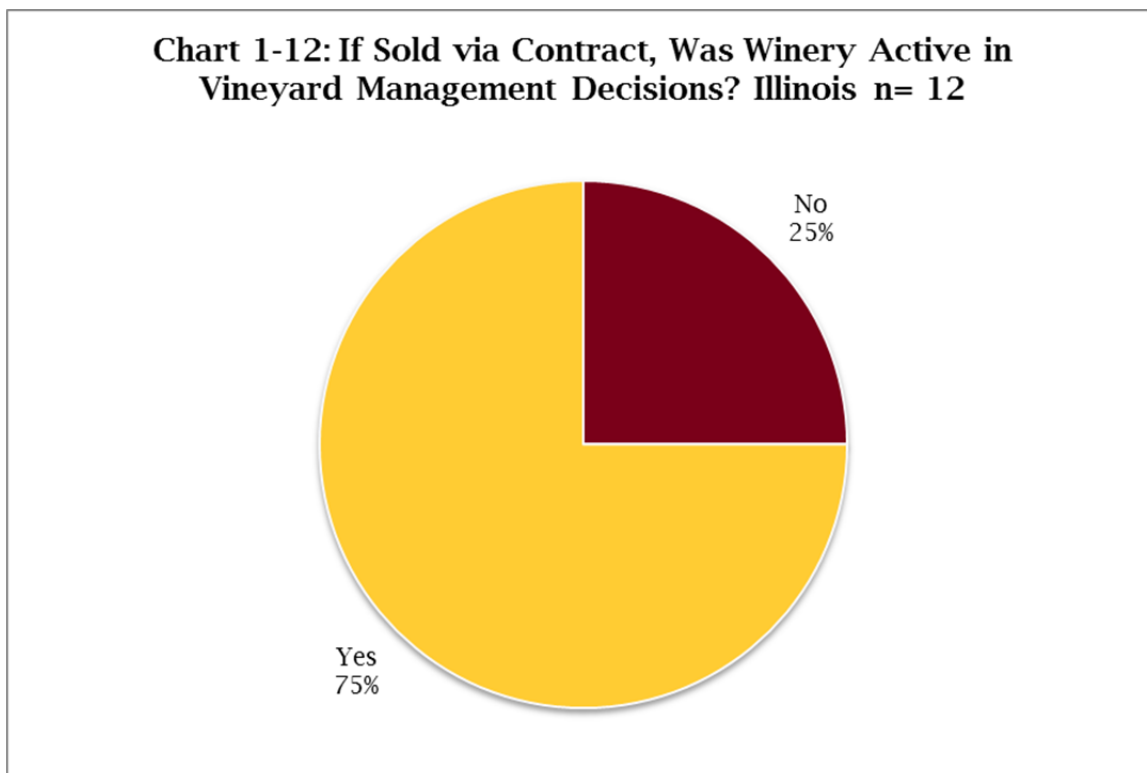


Marketing and Grape Utilization

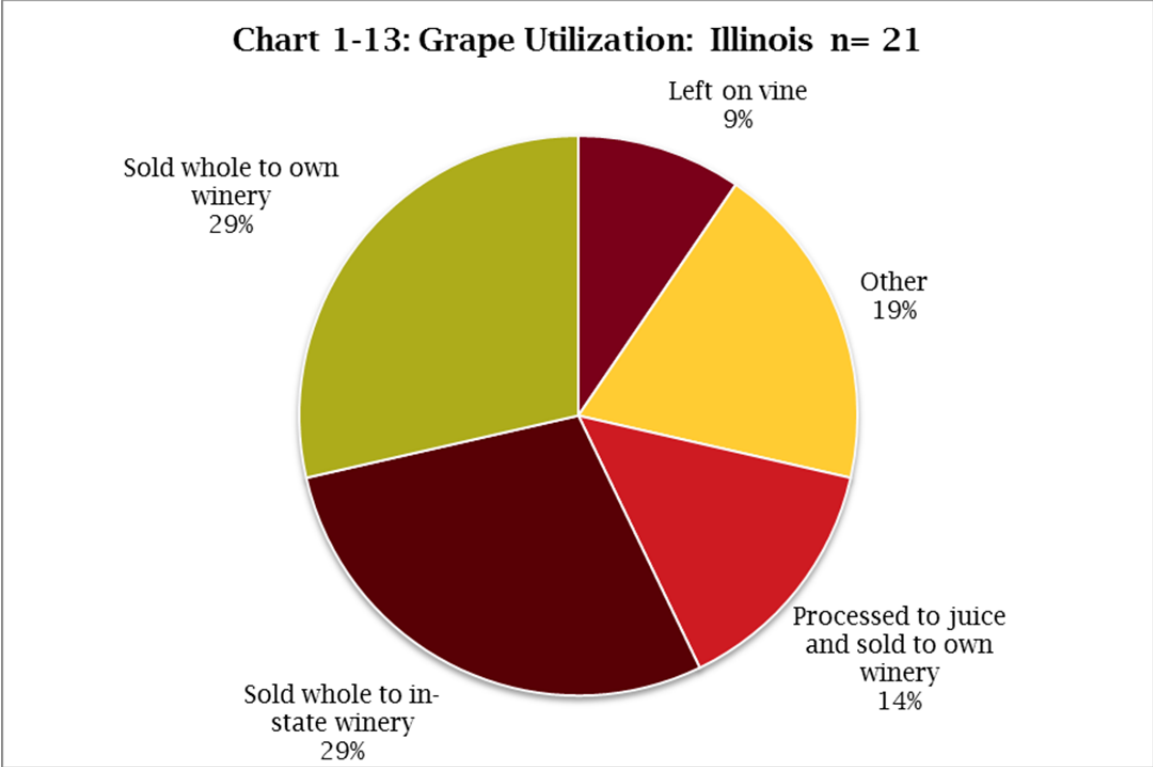
Grape growers were asked which market arrangements they used to sell their grapes (chart 1-11). They could select more than one choice. The most commonly used method, selected by 9 growers, was to sell to their own winery. Also commonly used were sales via contract. No growers indicated using a broker to sell their grapes.



Growers that contract with wineries to market their grapes overwhelmingly are interacting with the winery to make management decisions (see chart 1-12).

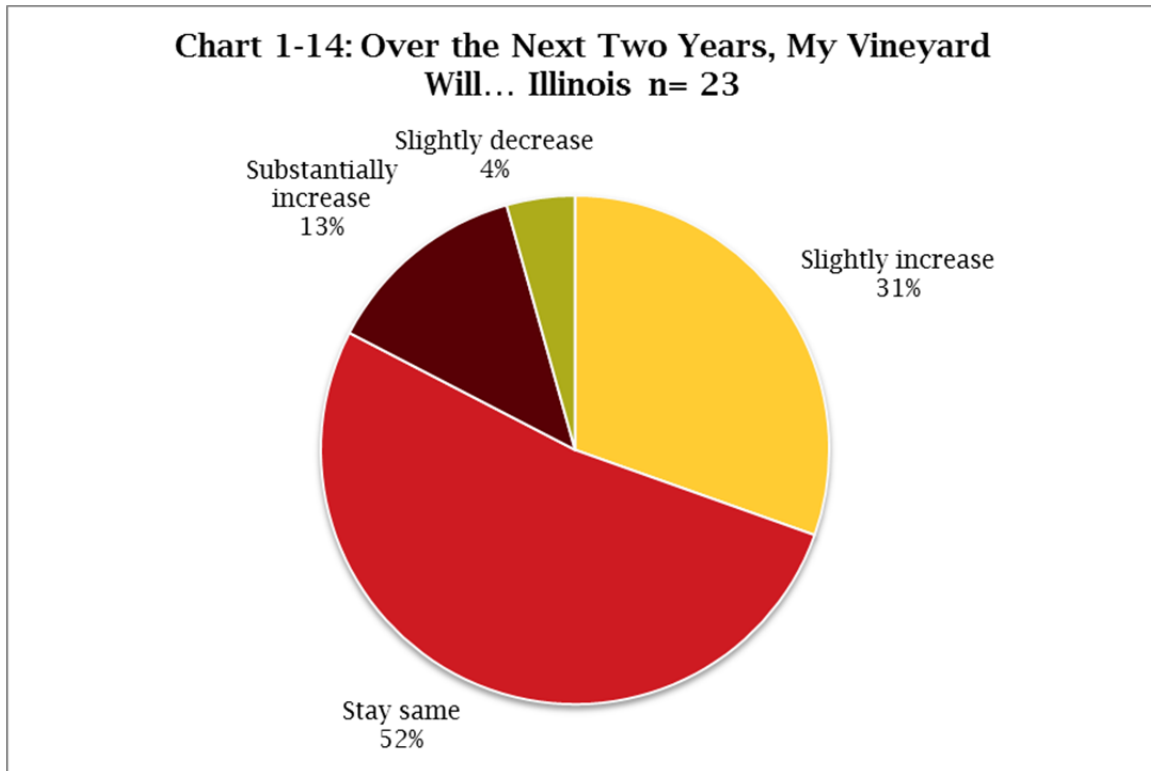


The most common arrangement for responding vineyards is to sell their grapes in a whole berry format (see chart 1-13). Twenty-nine percent of vineyards sold their berries whole to an in-state winery. Another 29 percent sold their grapes whole to their own winery. This reinforces the knowledge that grape growing and wineries are often local operations, working and contributing to the communities in which they are located. None of the responding grape growers reported selling out of the state. "Other" uses included personal use or sales to individual wine makers.



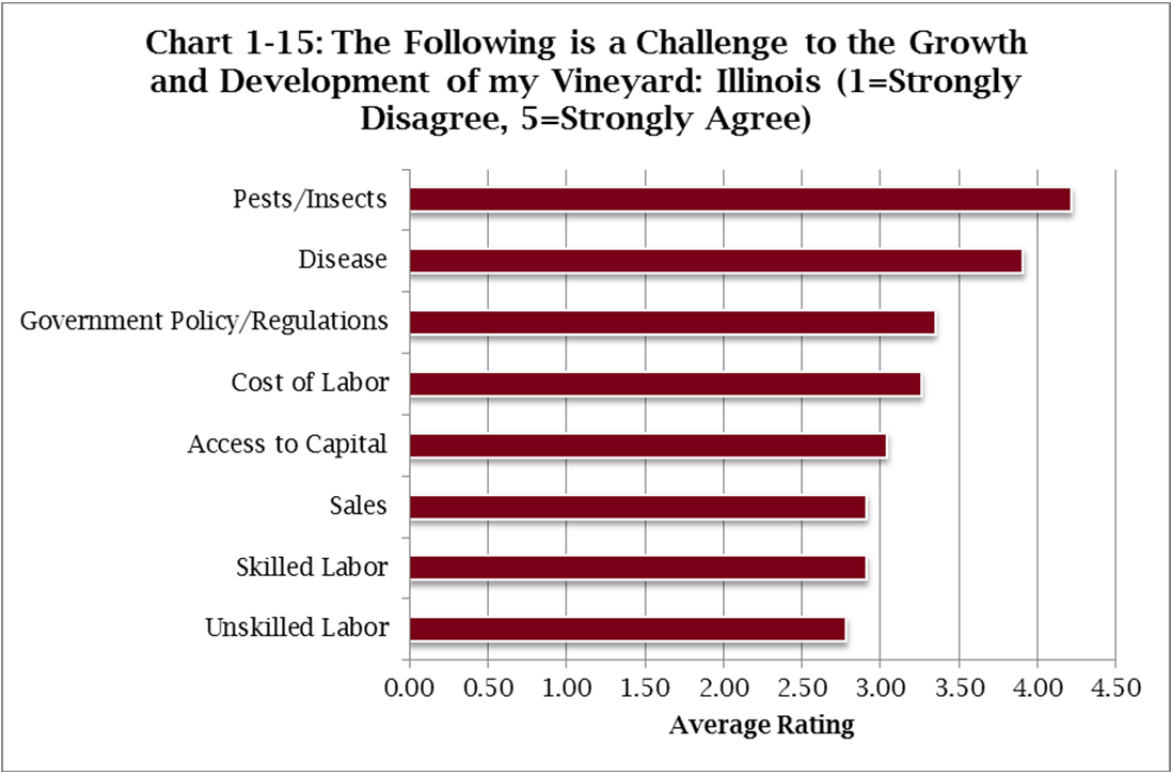
Future Plans

As discussed earlier, the rapid growth in the number of vineyards appears to be slowing in Illinois. Current vineyard owners appear to be reflecting this trend. While over 40 percent of vineyards plan to expand in the next 2 years, the majority are planning for slight increases. Over half of vineyards plan to stay the same size. Only four percent intend to decrease operations (see chart 1-14).



Grape growers responding to the survey indicate that the biggest challenges to their vineyard operations are related to pest/insects and disease (see chart 1-15). When asked to answer the question “the following is a challenge to the growth and development of my vineyard”, using a scale where 1 equals “strongly disagree” and 5 equals “strongly agree”, grape growers gave pest/insects an average score of 4.2 and disease an average score of 3.9. Access to labor (both skilled and unskilled) does not seem to be a significant issue for the responding growers in Illinois.

The NASS report (Ward 2012) details which pests and insects are most challenging to growers. The Japanese beetle, birds, black rot, and deer were most commonly cited.

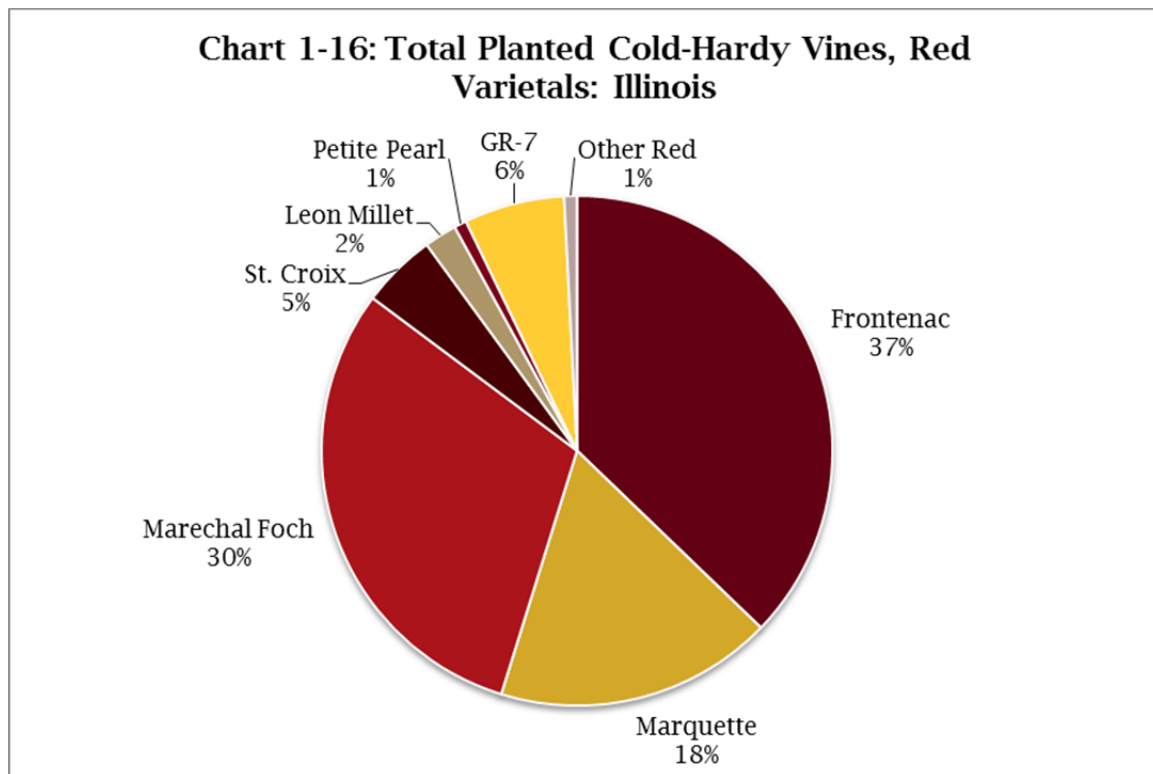


Grape Varieties

Survey participants reported 37,900 planted vines in their vineyards. Of these, the majority (63 percent) are planted in cold-hardy varieties. Of the cold-hardy varieties, 12,700 vines are red cultivars. The remaining cold-hardy vines, 11,000, are white cultivars. Chart 1-16 depicts total reported planted vines of cold-hardy red varieties. Frontenac grapes comprise 37 percent of the total planted cold-hardy red varieties. Marechal Foch and Marquette comprise 30 percent and 18 percent respectively. The Marquette grape was released in 2006. It appears Illinois vineyards are adopting the new variety, but not as quickly as in other Northern Grape project states.

These results are consistent with NASS survey findings (Ward 2012). The NASS report found 79 commercial planted acres of the Frontenac vine and 75 commercial planted acres of the Foch vine.

Table 1-2 reports the number of reported planted red cultivar vines by age. These figures represent only what the vineyards who answered the survey reported. Responding vineyards reported 63 red cultivar vines are older than 10 years of age, 6,735 are between 4 years and 10 years of age, and 5,885 are younger than 4 years old. Vines younger than 4 years of age have yet to reach maturity and produce a full crop. It is notable that virtually no cold-hardy red varieties were in the ground more than 10 years, then the number jumps to over 6,000 and declines slightly. It would appear the period of 2002 to 2008 had the highest rate of adoption. The question is whether this rate of adoption continues to increase or if it begins to taper off.



Further, table 1-2 reflects a similar adoption rate of the Marquette grape variety as observed in other Northern Grapes Project states. Although the Marquette grape has not reached the highest percent of red grape plantings in Illinois, it has grown significantly since its introduction. Ten years ago, there were no Marquette vines in the ground. Within the last four years, the responding vineyards alone report planting 1,700 vines. The other prominent cold-hardy red variety, Frontenac, also continues to be planted in high numbers.

Table 1-2: Planted Vines of Cold-Hardy Red Varieties by Responding Vineyards, by Age, Illinois

Variety	Vines, Younger than 4	Vines, Between 4 and 10 Years	Vines, Older than 10	Total
Baltica	0	0	0	0
Beta	0	0	0	0
Frontenac	2,135	2,581	1	4,717
GR-7	408	400	0	808
King of the North	73	0	0	73
Leon Millet	10	252	0	262
Marechal Foch	1,104	2,689	62	3,855
Marquette	1,735	500	0	2,235
Petite Pearl	100	0	0	100
Sabrevois	0	0	0	0
St. Croix	300	303	0	603
Valiant	0	10	0	10
Other Red	20	0	0	20
Total	5,885	6,735	63	12,683

The totals in this table are for RESPONDING vineyards ONLY and do not represent the total industry in Illinois.

Chart 1-17 illustrates the total planted vines of cold-hardy white varieties. La Crescent (47 percent) and La Crosse (15 percent) are the most commonly planted vines by the reporting vineyards.

The NASS survey (Ward 2012) supports the finding of La Crescent and La Crosse as the most commonly planted white cold-hardy vines. NASS reports 24 commercial planted acres of La Crescent vines and 20 commercial planted acres of La Crosse vines in Illinois.

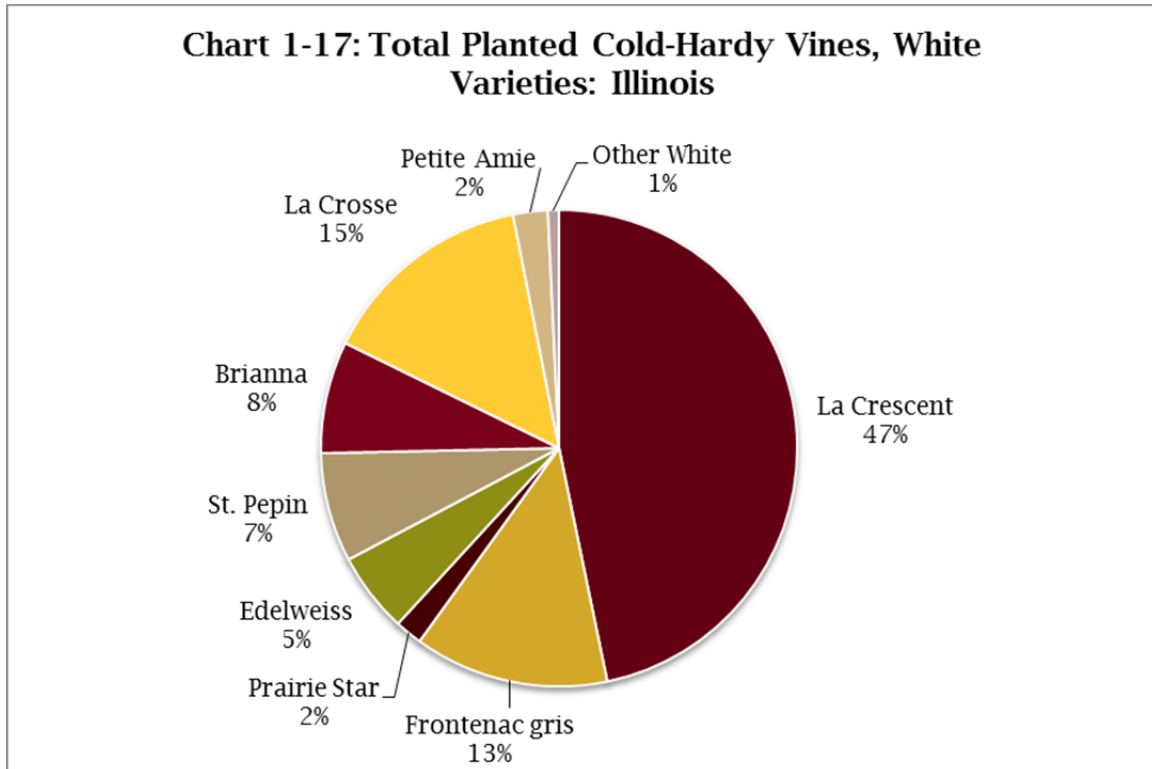


Table 1-4 reports the total reported planted vines of cold-hardy white cultivars. These figures represent only what the vineyards who answered the survey reported. Responding vineyards report 6 vines older than 10 years in the ground, 4,780 vines of age between 4 and 10 years, and 6,250 vines younger than 4 years. Unlike the red varieties, it appears plantings of cold-hardy white varieties have increased in the last four years.

Table 1-4: Planted Vines of Cold-Hardy White Varieties by Responding Vineyards, by Age, Illinois

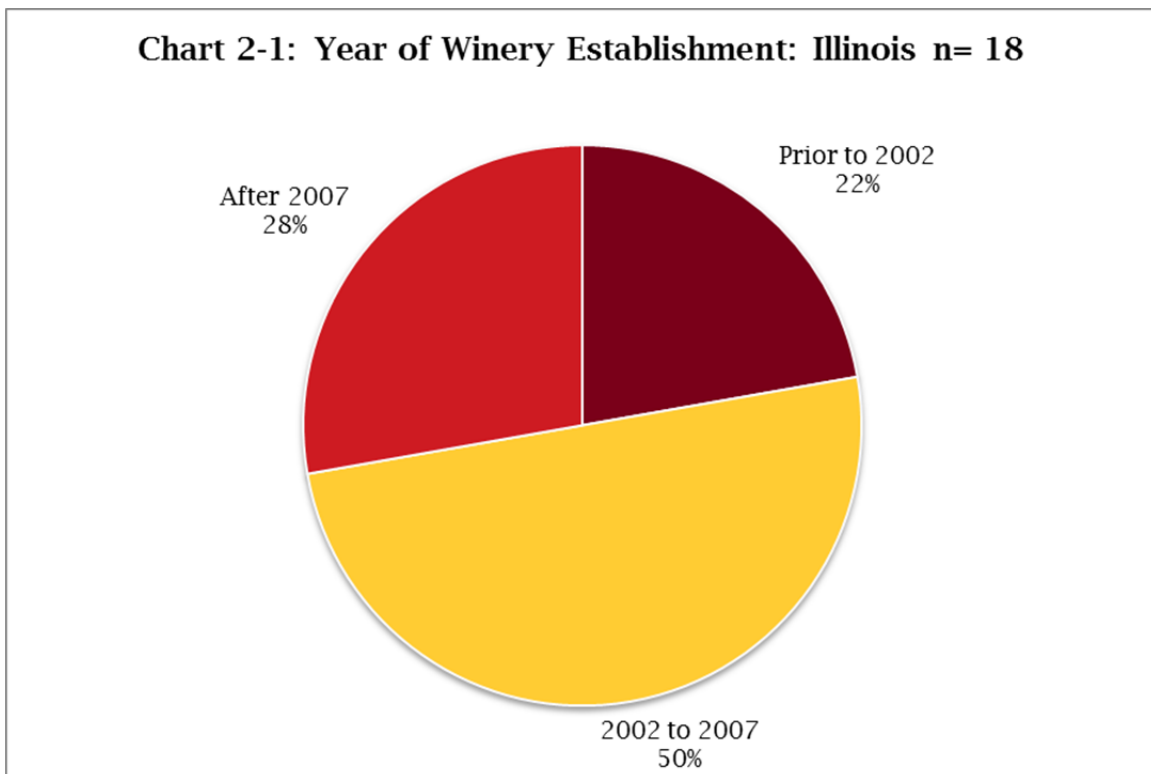
Variety	Vines, Younger than 4	Vines, Between 4 and 10 Years	Vines, Older than 10	Total
Brianna	840	0	0	840
Edelweiss	600	0	0	600
Espirit	0	3	0	3
Frontenac Blanc	0	0	0	0
Frontenac Gris	1,048	410	0	1,458
Kay Gray	0	0	0	0
La Crescent	2,195	2,967	0	5,162
La Crosse	653	959	2	1,614
Louise Swenson	80	0	0	80
Petite Amie	260	0	0	260
Prairie Star	200	6	0	206
St. Pepin	376	437	4	817
Other White	0	0	0	0
Total	6,252	4,782	6	11,040

The totals in this table are for RESPONDING vineyards ONLY and do not represent the total industry in Illinois.

WINERY CHARACTERISTICS

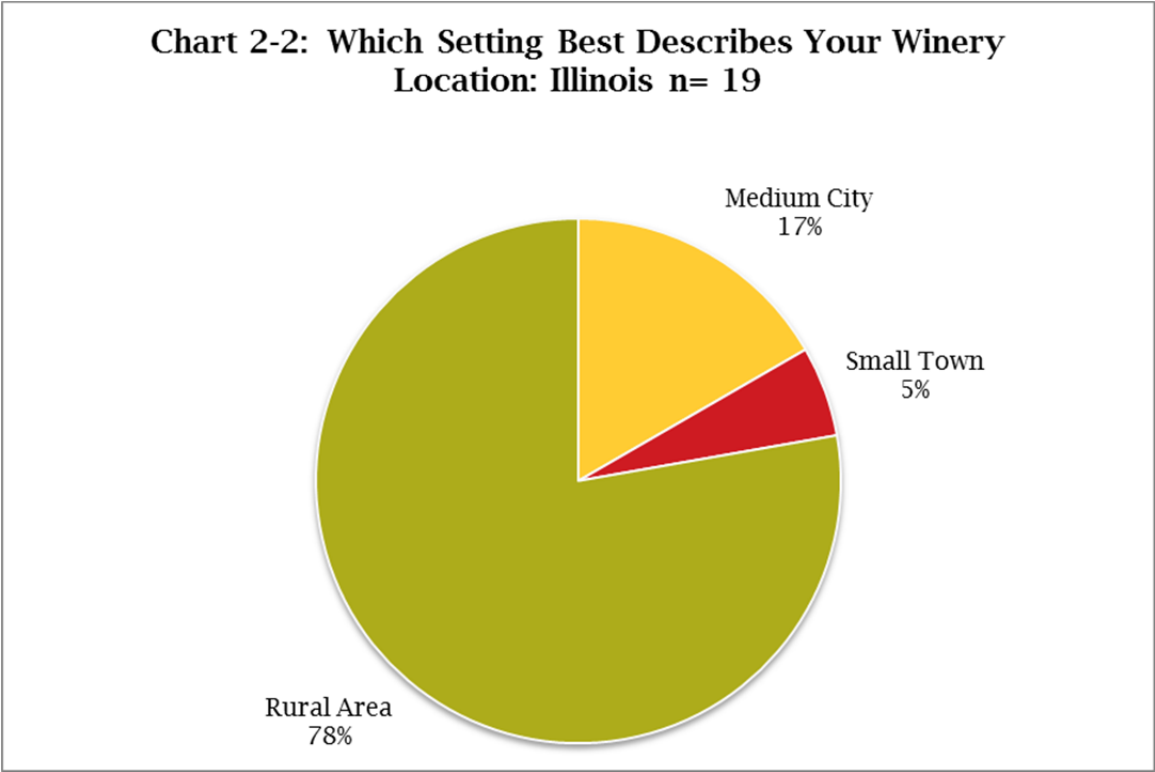
Nineteen Illinois wineries responded to the Northern Grapes Project survey. According to the Alcohol and Tobacco Tax and Trade Bureau (TTB), there were 109 licensed wineries in Illinois.³ Based on these statistics, the response rate for this survey was 17 percent. However, not all respondents reported being licensed at the time of the survey. Our dataset may include new wineries still in the start-up phase.

As shown in chart 2-1, growth in the number of wineries in Illinois continues. Approximately 1 in 5 wineries existed prior to 2002. The survey indicates there was rapid growth in the number of wineries in Illinois between 2002 and 2007. Growth in the number of new wineries appears to have slowed since 2007.



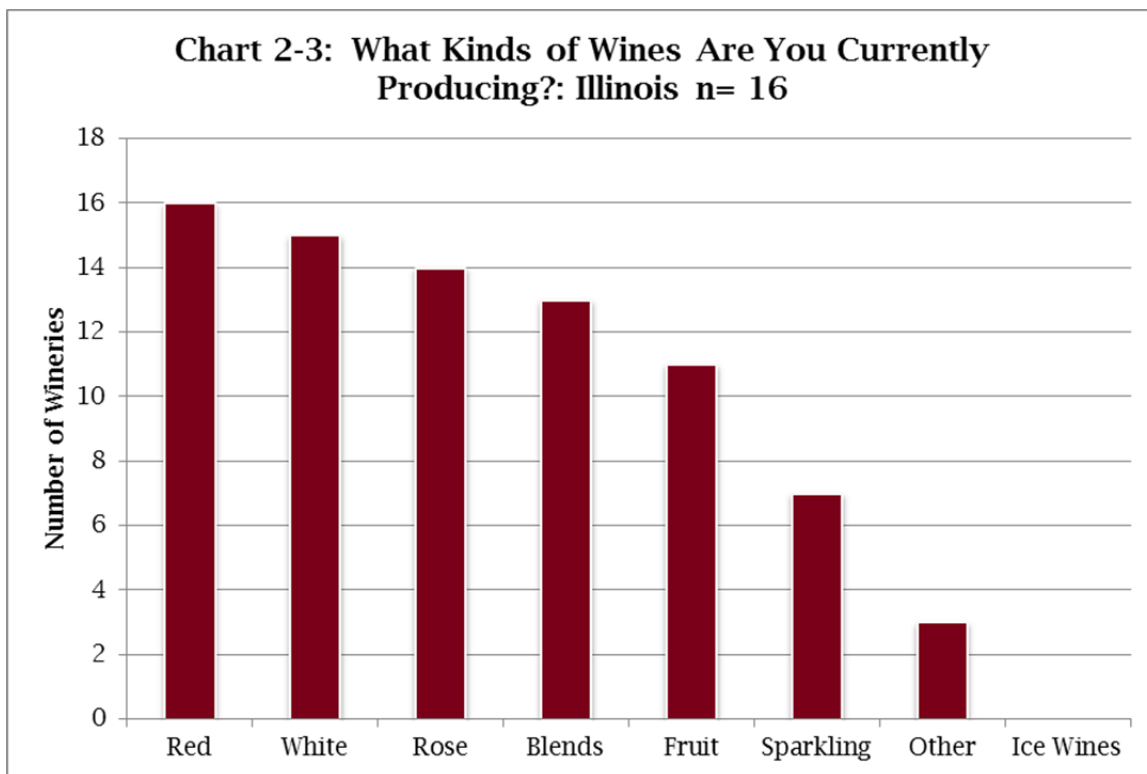
³ The number of wineries in each state was taken from a publication by WineAmerica. The publication uses data from the United States Alcohol and Tobacco Trade and Tax Bureau for 2010. This data is the basis of calculations because it provides consistency and uniformity across all states in the Northern Grapes Project study area.

The majority of Illinois' wineries (78 percent) are located in rural areas, outside of cities and urban centers (see chart 2-2). The rest are located in small towns (population under 2,500) and mid-sized cities (populations of under 20,000 residents).

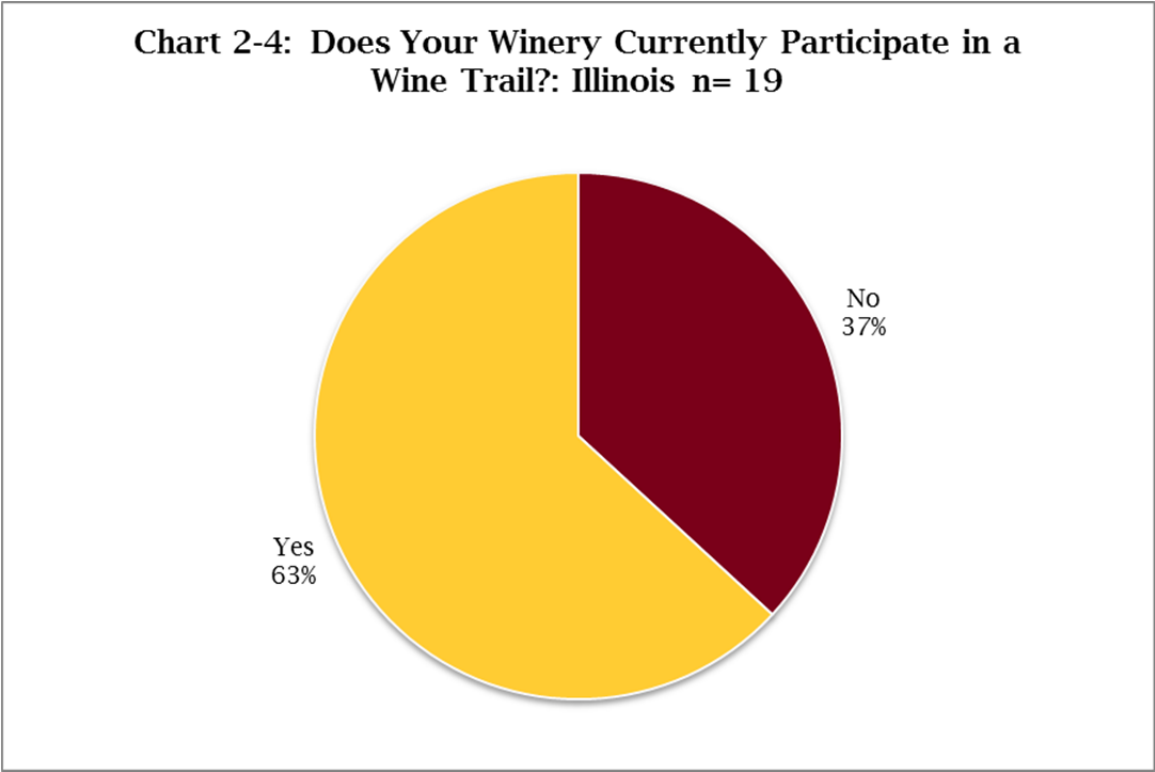


All surveyed Illinois wineries are producing red wines (see chart 2-3). Wineries are also commonly producing white wines, rose wines, and blends. Study results show wineries in Illinois produced 1.1 million gallons of wine in 2011 or an average of 10,400 gallons per winery.

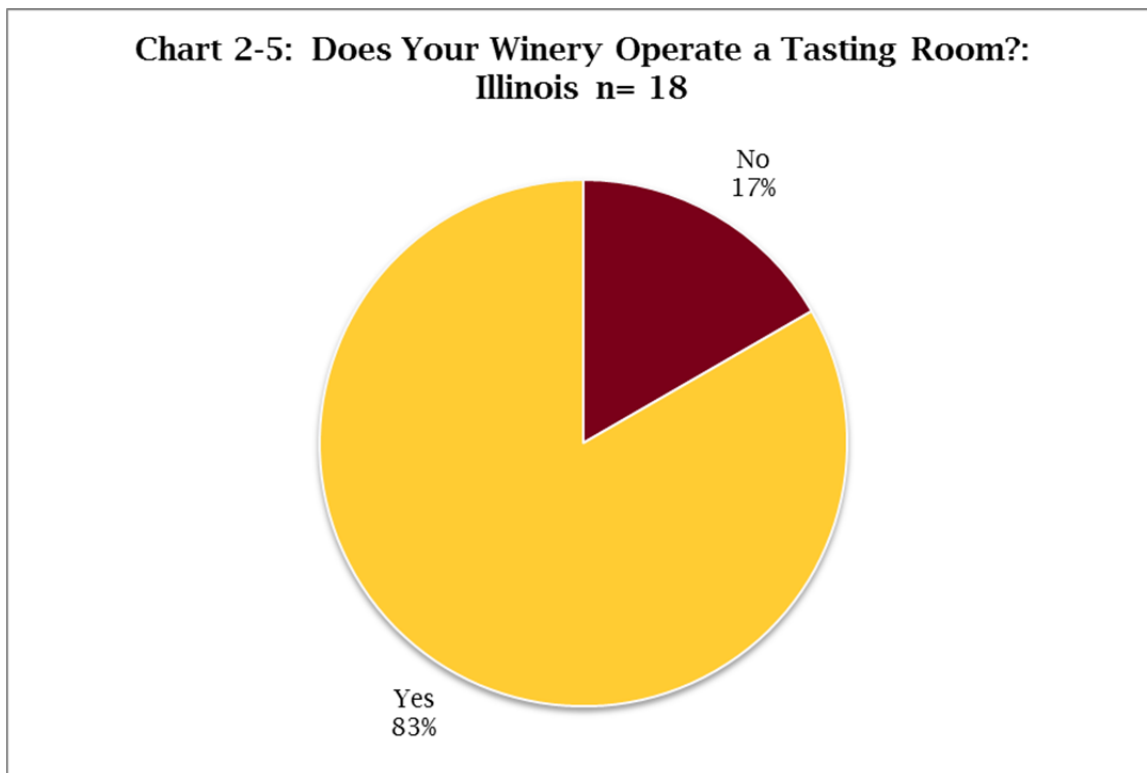
Chart 2-3 is consistent with the NASS report (Ward 2012) which found that 49 percent of the wine produced in 2011 was red wine, 34 percent white wine, and 17 percent non-grape wine.



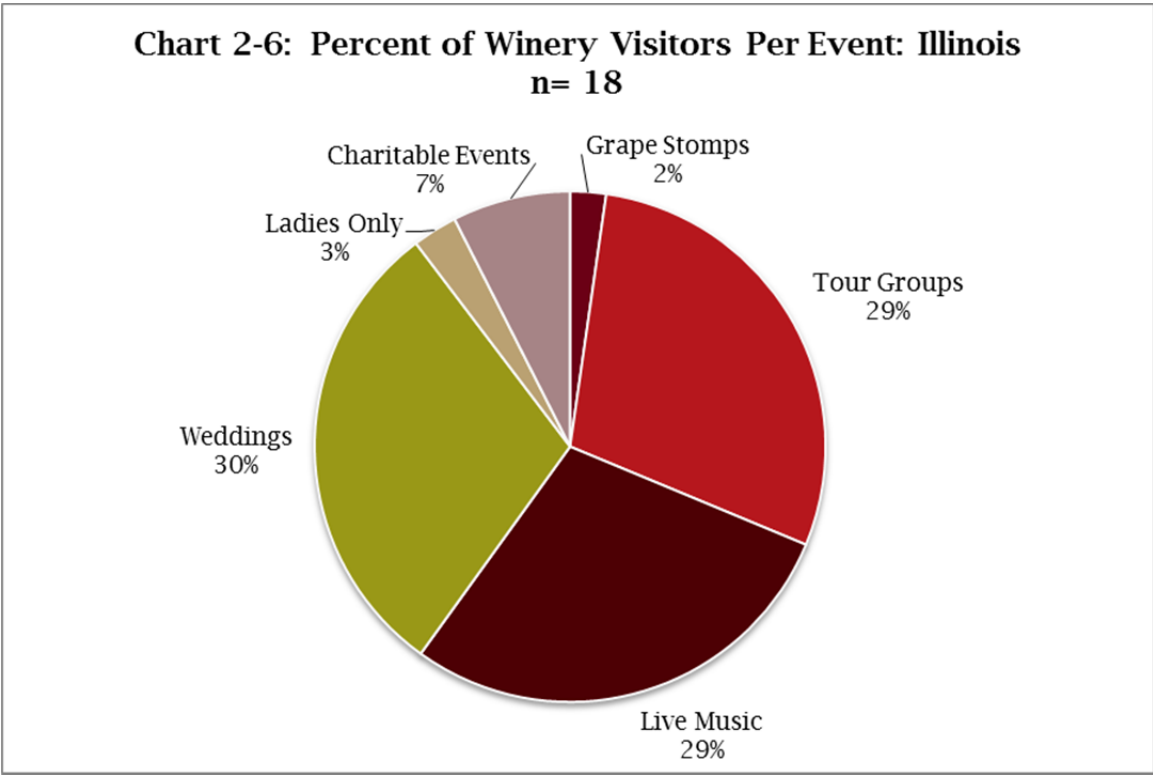
Nearly two-thirds of Illinois wineries currently participate in a wine trail (see chart 2-4). This is a higher percentage than other states in the Northern Grapes Project. Wine trails are one method wineries use to draw visitors to their tasting room. Since many wineries in Illinois are in rural areas, the need to participate in a wine trail may be higher.



The majority of Illinois wineries (83 percent) operate a tasting room in conjunction with their winery (see chart 2-5). Only 61 percent of wineries charge for tastings. Sixty-one percent of the wineries offer food with their wine service. On average, each winery served 8,400 tasting room customers. Wineries estimate that 54 percent of their tasting room visitors are repeat customers.



Wineries also reported on events held at their winery in 2011. Specifically, wineries were asked to report how many people attended the following types of events: grape stomps, wine-making classes, tour groups, live music, weddings, ladies-only events, charitable events, and other events. In total, the responding wineries (19) hosted 69,700 guests at winery events, roughly half who were from outside the local area. The breakdown of which events these guests attended is shown in chart 2-6. Weddings, live music events and tour groups drew the most people to the responding wineries in 2011.

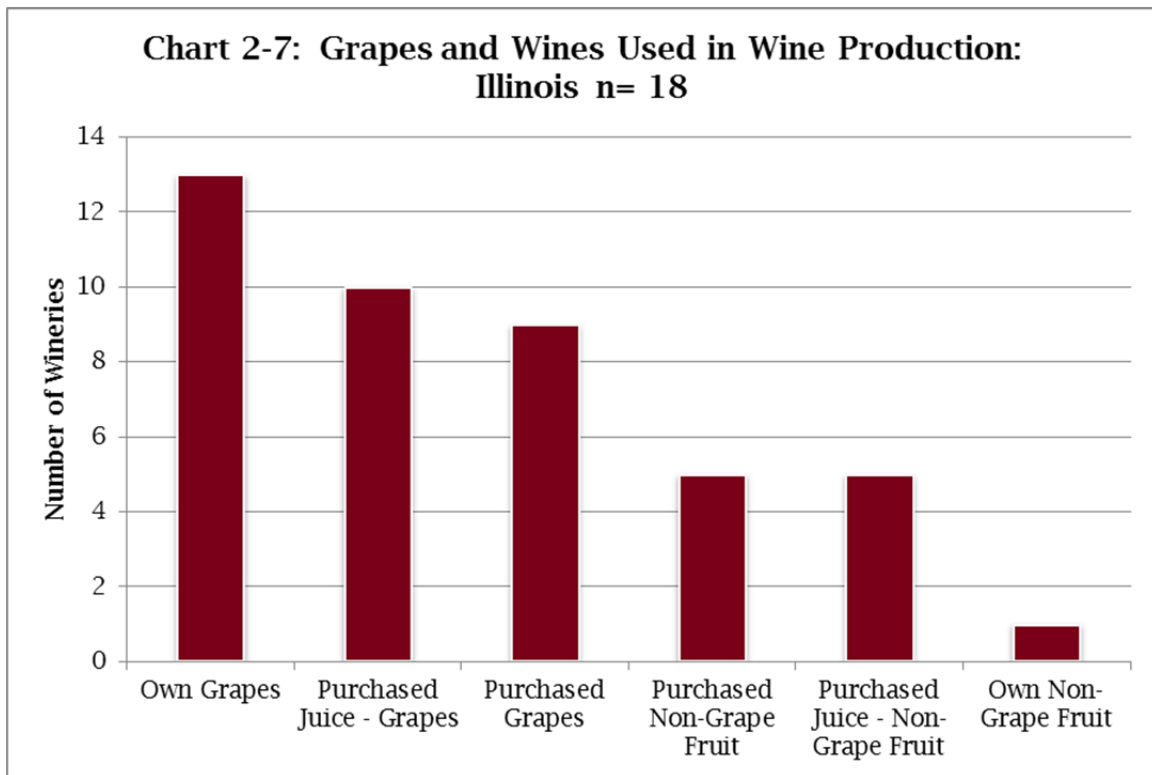


Grape Acquisition

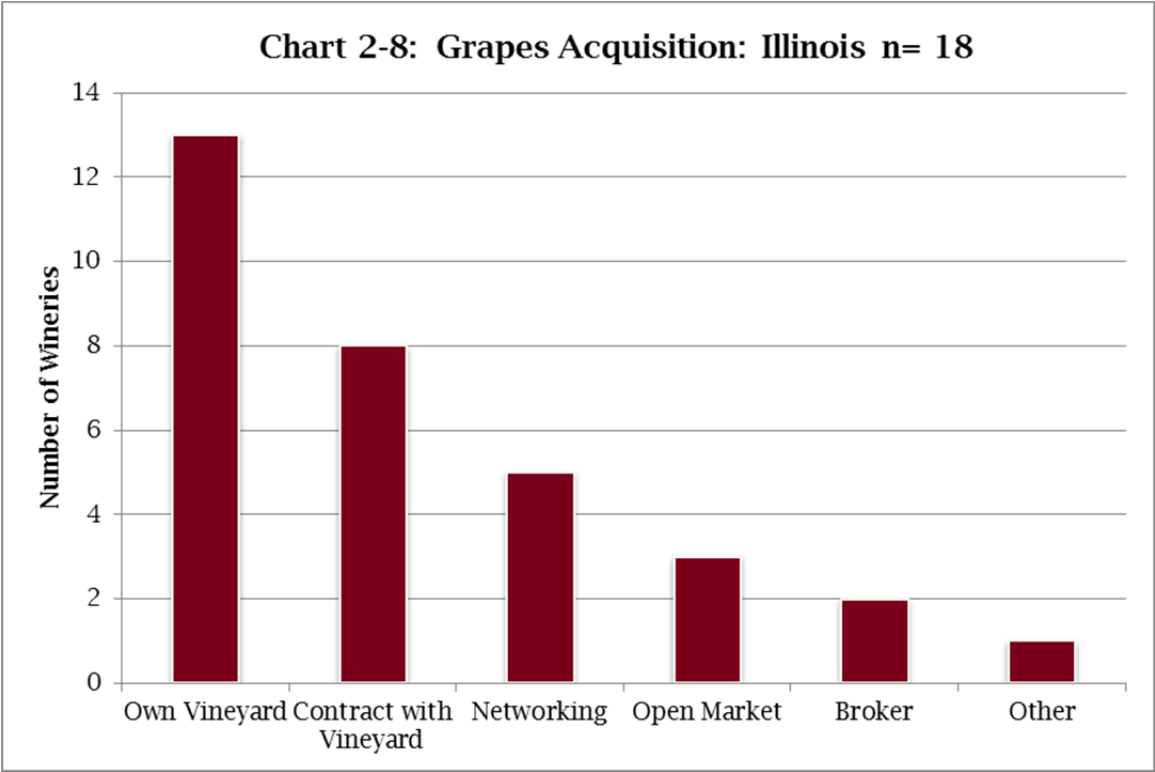
Wineries in Illinois purchased \$5.7 million of grapes in 2011, from their own vineyards and from other vineyards. On average, each winery spent \$52,400 to buy grapes. Fifty-seven percent of the grapes used by these wineries were reporting as cold-hardy varieties.

As shown in chart 2-7, the most common method of acquiring grapes by responding wineries is to purchase grapes from their own vineyards. A significant number of wineries (10) indicated they purchase juice made from grapes for use in their winery. Illinois wineries indicate a higher use of this method of acquisition than other wineries in the Northern Grapes project study.

These results are consistent with the NASS study (Ward 2012) which reported 26 percent of wine produced was made from grapes grown by the winery itself, 26 percent from purchased juice from out-of-state, and 18 percent from grapes grown at other vineyards in Illinois.

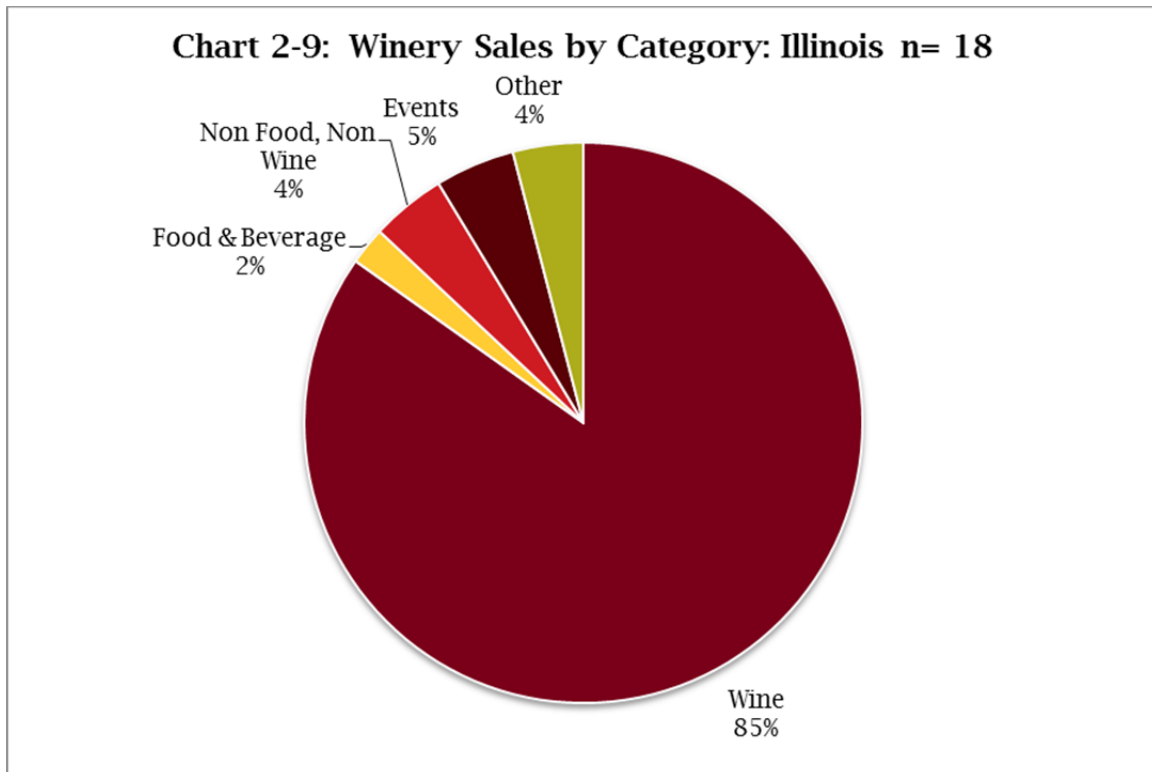


As depicted in chart 2-8, wineries primarily acquire their grapes from their own vineyards. Those who purchase grapes use a combination of contracts with vineyards, networking, the open market, and a broker.



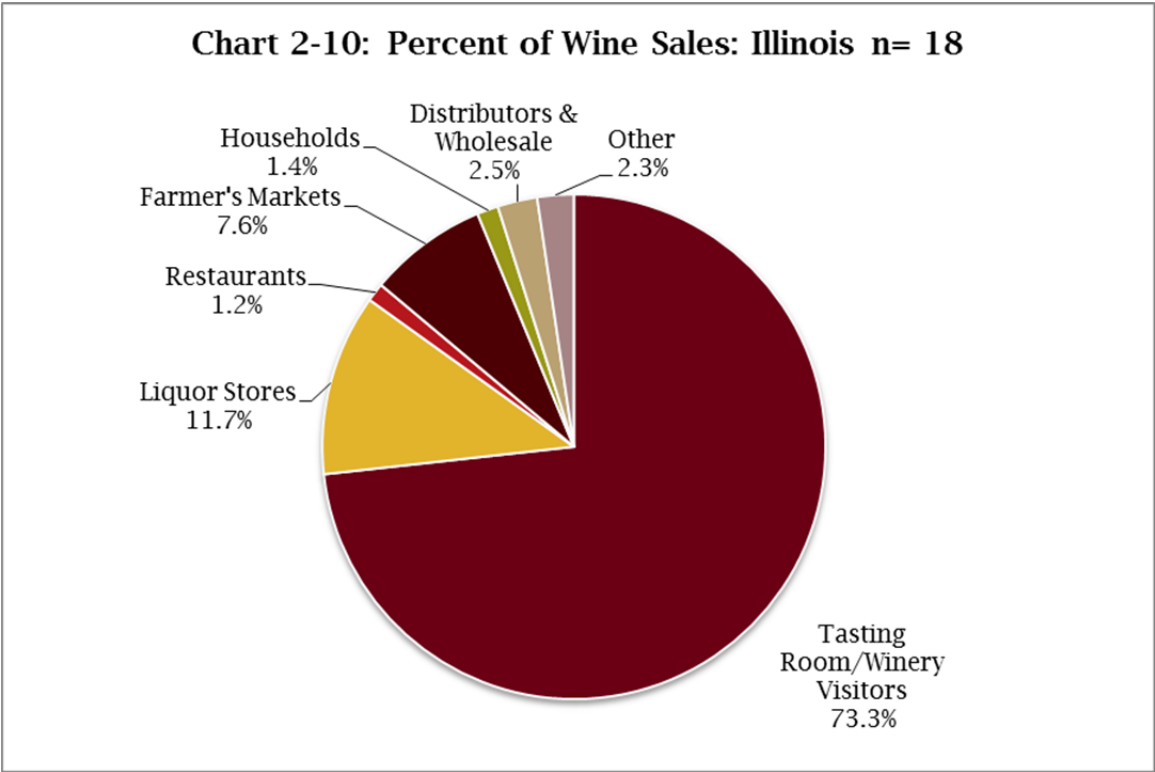
Winery Sales and Production

In total, wineries in Illinois had sales of \$48.9 million in 2011, an average of \$448,000 per winery. Of total sales, \$27.9 million were generated from wines crafted from cold-hardy grapes. Wine sales, including bottles sold and tasting room fees, are the primary source of revenue for wineries, accounting for 85 percent of all sales (see chart 2-9). Wineries produced, on average, 10,400 gallons of wine.

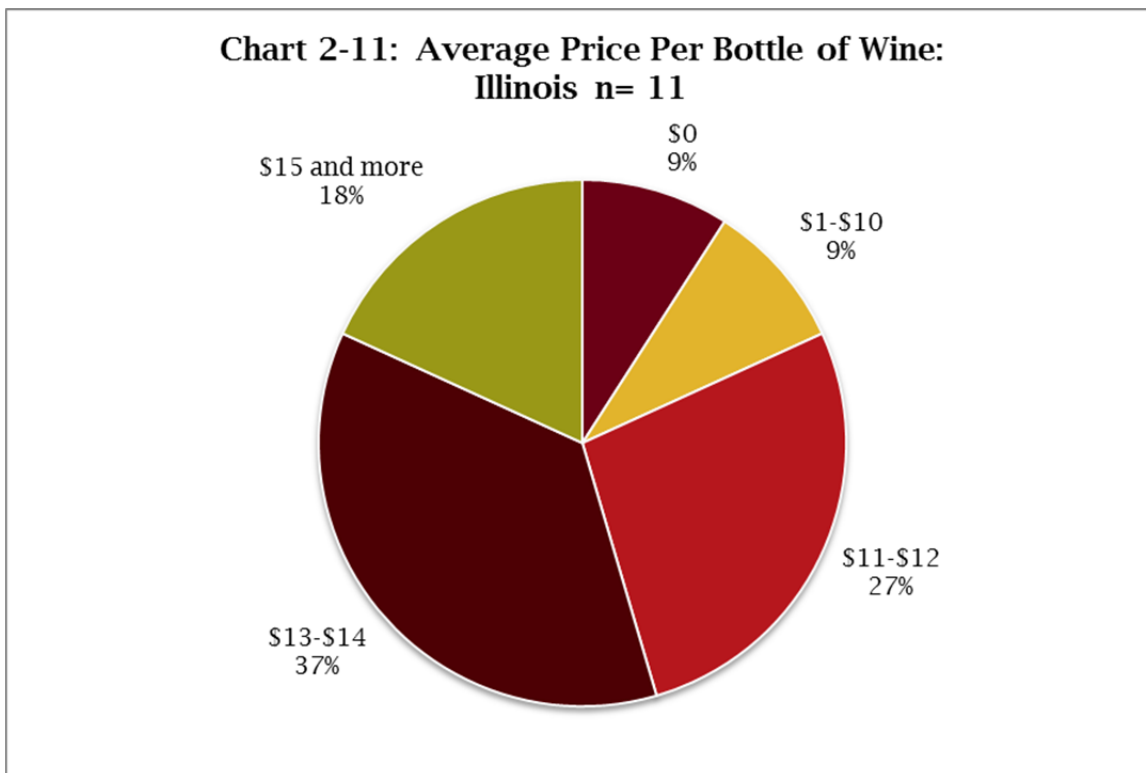


Wineries in Illinois sold an estimated 3.1 million bottles of wine in 2011 or an average of 36,370 bottles per winery. Over 80 percent of wineries operate a tasting room and nearly three-quarters of their sales are through the tasting room or to winery visitors (see chart 2-10). Approximately 15 percent of sales are via distributors and liquor stores.

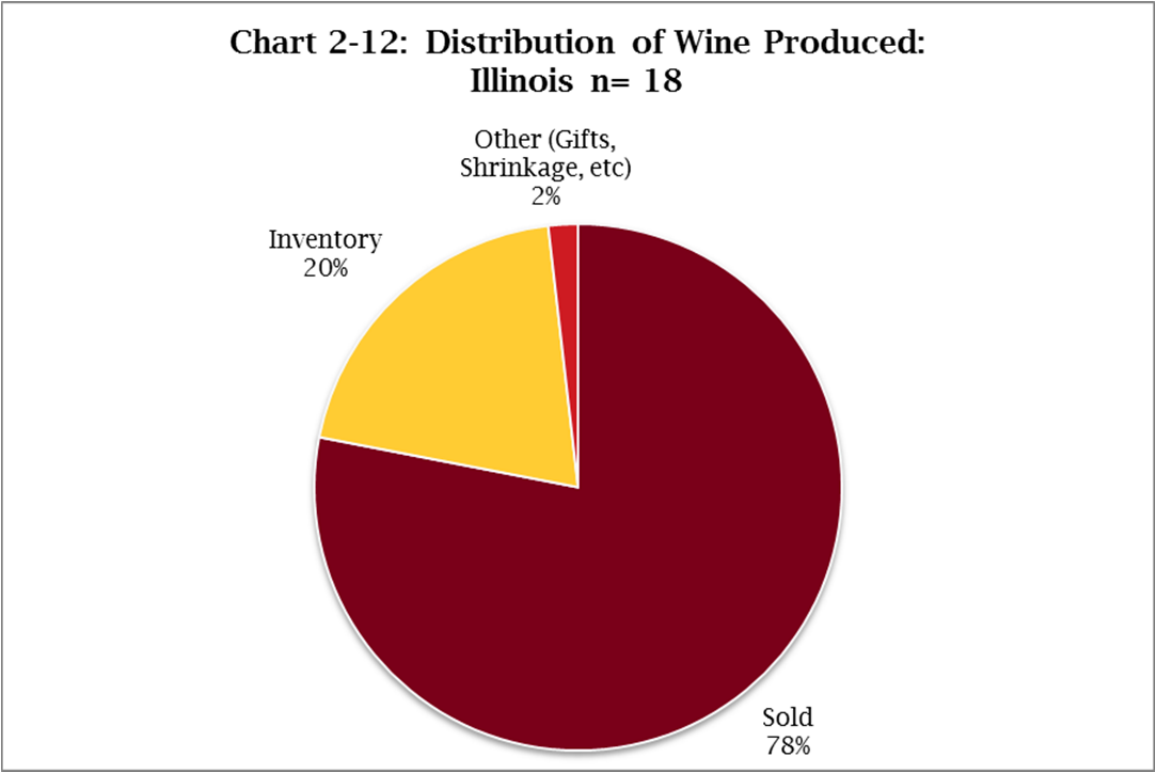
The NASS report (Ward 2012) is consistent with this report, concluding that 79 percent of all wine cases sold were through the tasting room or through winery stores.



Illinois wineries reported the average price per bottle of wine sold was \$12 in 2011. Chart 2-11 shows the distribution of average wine sale prices. Wineries reporting selling for \$0 are likely those who did not produce a bottle for sale (start-ups). Just over one-third of wineries sold their bottles for a price between \$13 and \$14.

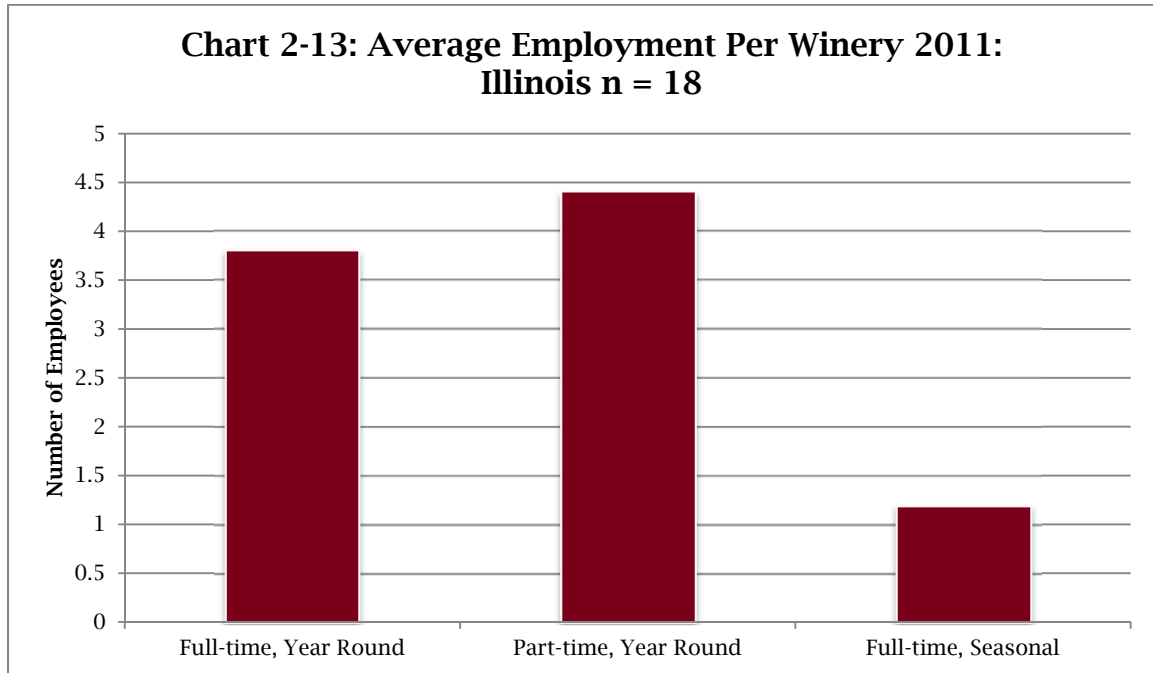


As mentioned, the average responding winery in Illinois produced 10,400 gallons of wine. The majority of the wine (78 percent) produced was sold (see chart 2-12). Wineries put 20 percent of the gallons of wine produced into inventory. A small percent (2 percent) of wine produced was utilized in other ways (e.g. gifts, donations, shrinkage, etc.).



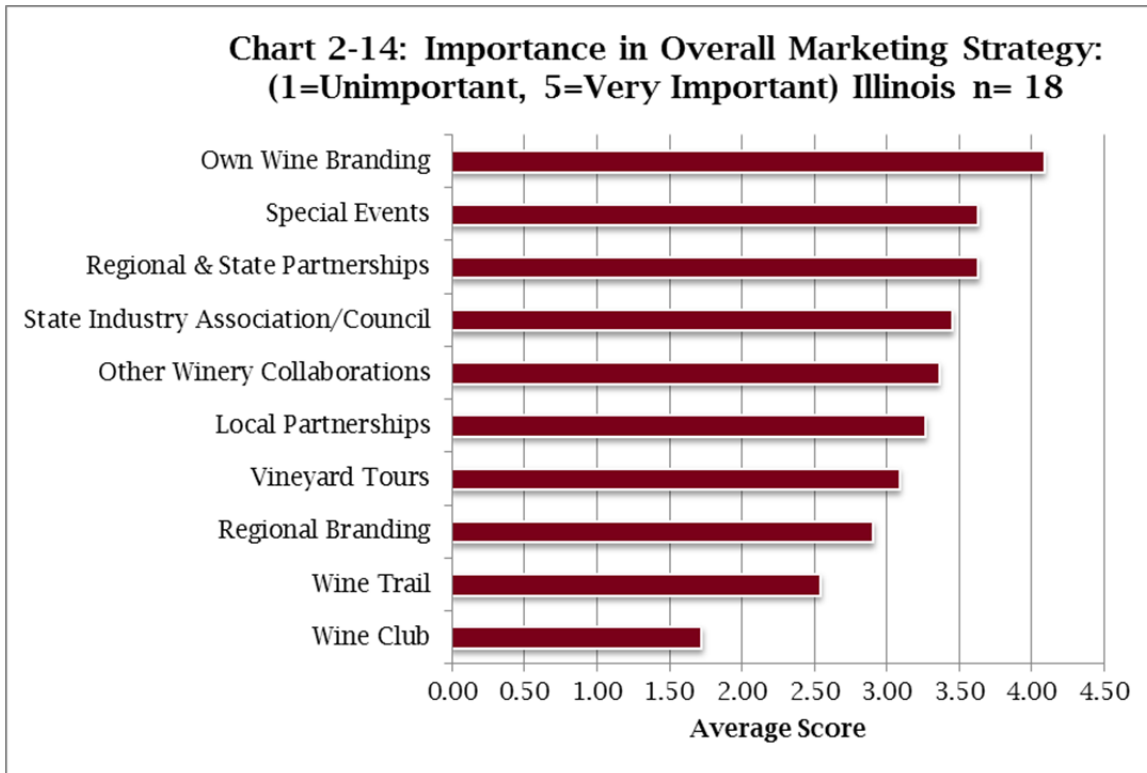
Wineries in Illinois employ 1,020 individuals. On average, each winery employs 9 individuals; 4 full-time year-round people, 4 part-time, year-round people, and 1 full-time, seasonal person (see chart 2-13). The NASS study (Ward 2012) report wineries employ an estimated 211 full-time, 290 part-time, and 237 seasonal employees. The report also cites 318 volunteers.

In 2011, Illinois wineries paid \$10.0 million in labor income (includes wages, salaries, and benefits) with an average of \$92,100 per winery.

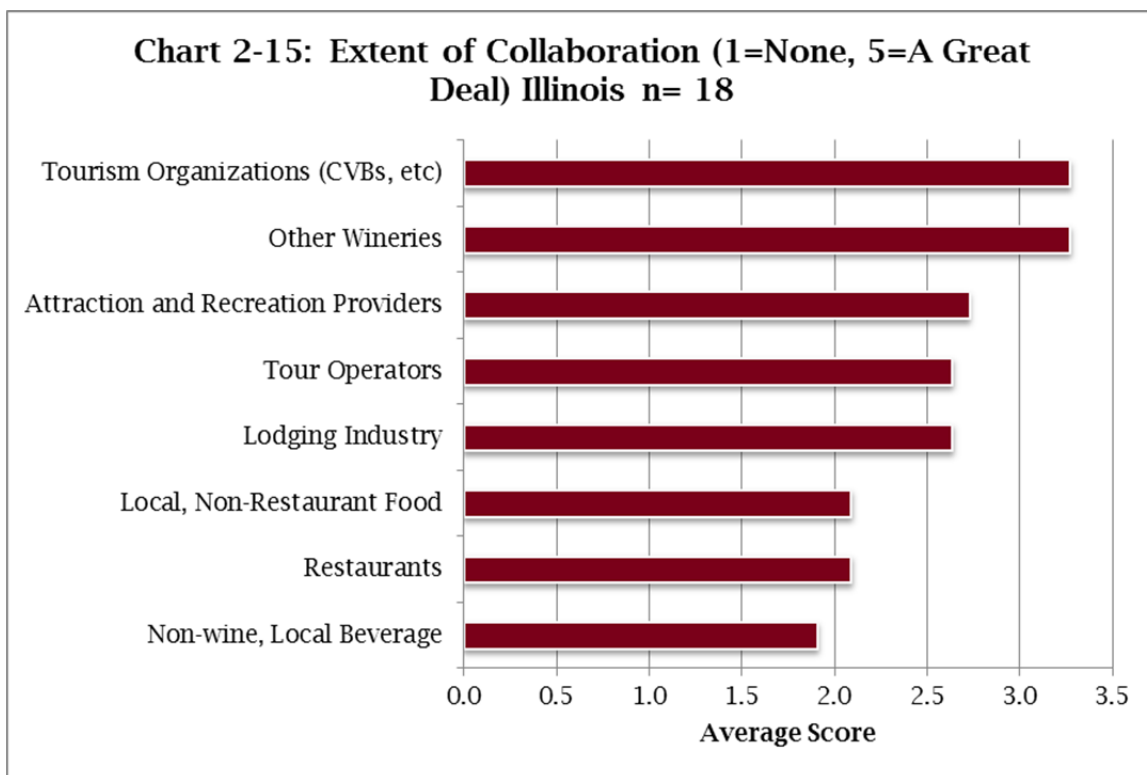


Winery Marketing and Collaboration

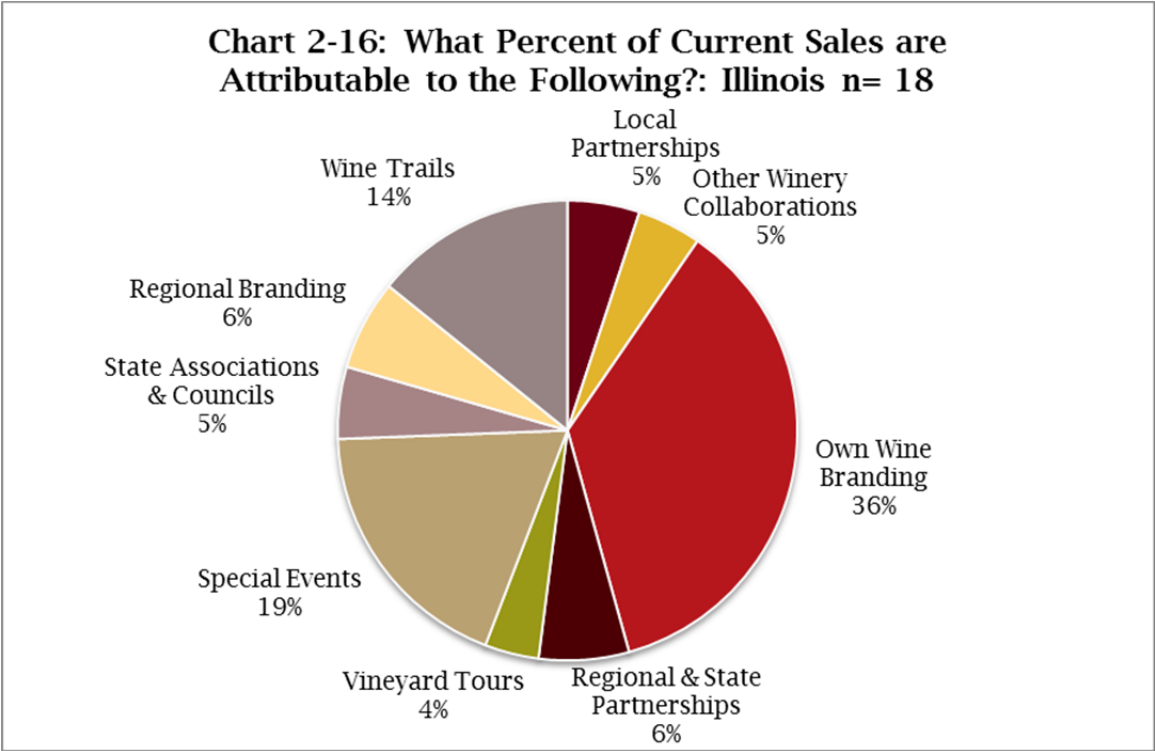
Wineries were asked to rate a list of marketing strategies on a scale where 1 indicated the strategy was “unimportant” for their marketing and 5 indicated it was “very important”. As shown in Chart 2-14, winery owners believe that branding their own wine is the most important marketing strategy they can employ, assigning it an average score of 4.09. Special events were also assigned relatively high scores. Winery owners assigned the lowest average scores to wine clubs, wine trails, and regional branding initiatives. Fifty-six percent of wineries offer vineyard tours.



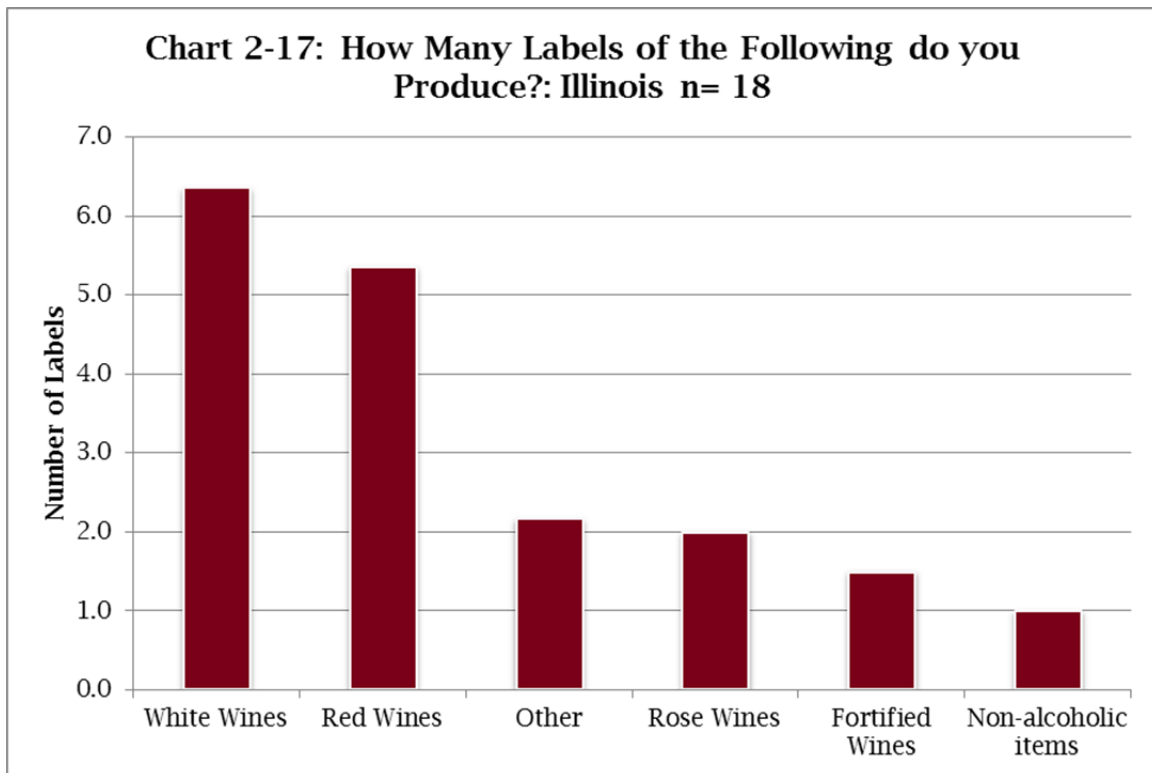
Wineries were also asked about their current collaboration efforts. They were asked, on a scale where 1 equals “none” and 5 equals “a great deal”, “to what extent do you currently collaborate with the following entities?” The highest level of collaboration is with tourism organizations and with other wineries (see chart 2-15).



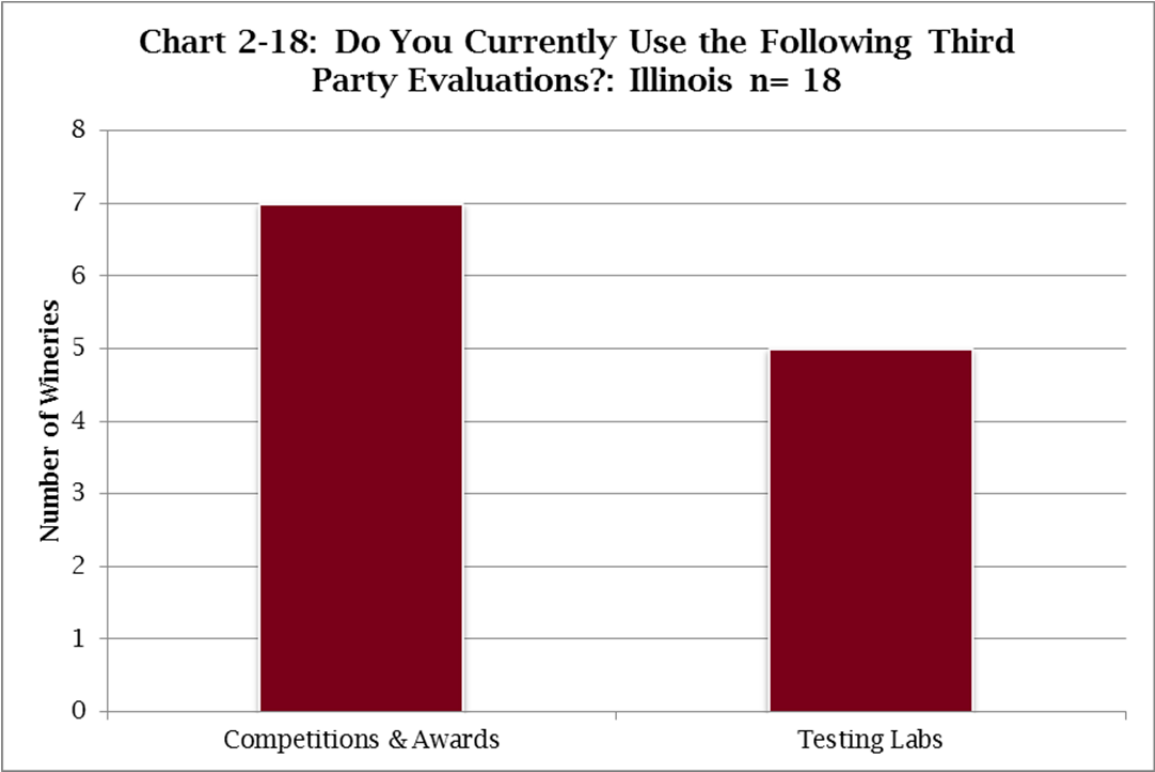
Wineries were then asked how various marketing arrangements influenced their sales. Wineries indicated that their own wine branding efforts drove the largest share (36 percent) of their sales. Special events drive an estimated 19 percent of sales and wine trails 14 percent (see chart 2-16).



As mentioned earlier, the most commonly produced wines are white and red wines. On average, each winery is bottling 6 labels of white wines and 5 bottles of red wines (see chart 2-17).



Competitions are the most commonly used type of third party evaluations, as reported by the responding wineries. Wineries are also using testing labs for third party evaluations. No wineries report using quality alliances (see chart 2-18).



Future Plans

Winery owners were asked directly about future plans for their establishment. The results indicate the potential for continued growth in the industry, as 91 percent of wineries plan to expand in the next five years (see chart 2-19). The Northern Grapes project survey results are slightly more optimistic than the NASS report (Ward 2012) which concludes that 46 percent of surveyed wineries have plans to increase capacity within five years.

A few wineries are considering selling or transferring the winery to a family member. The industry, as the older wineries mature, may be in need of assistance in succession planning and transferring a business. Continued growth also indicates a continued need for successful business planning.

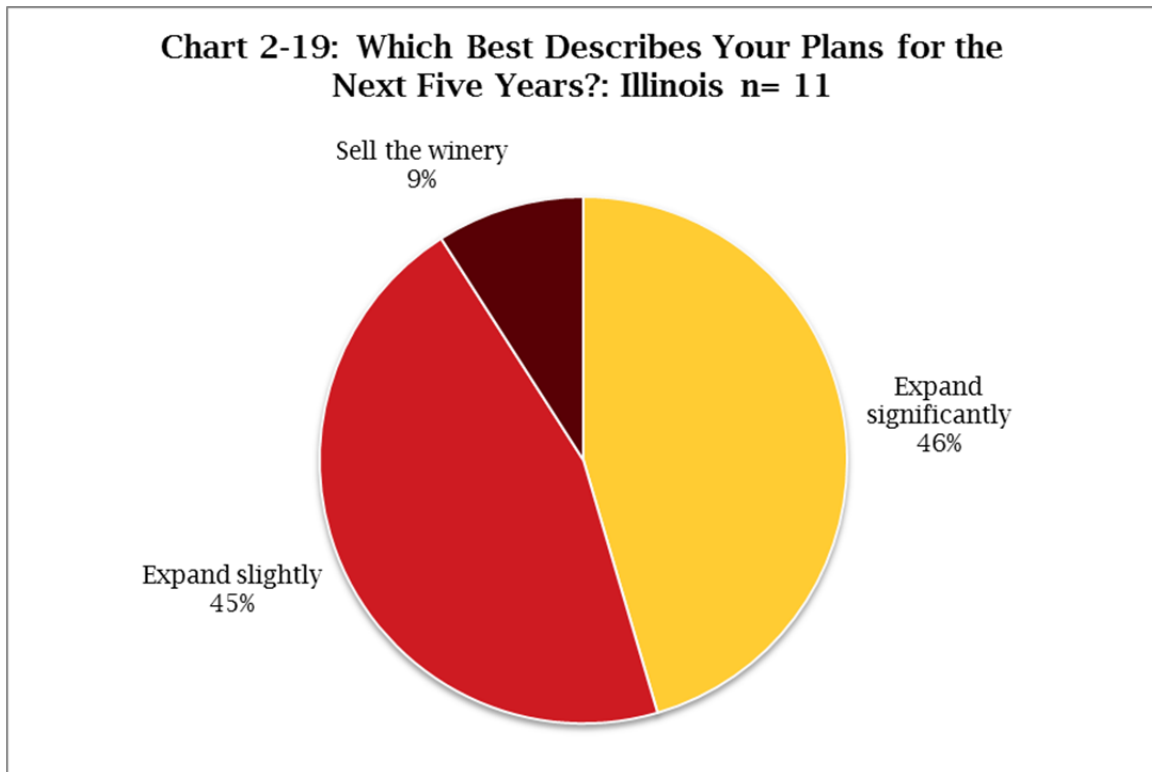
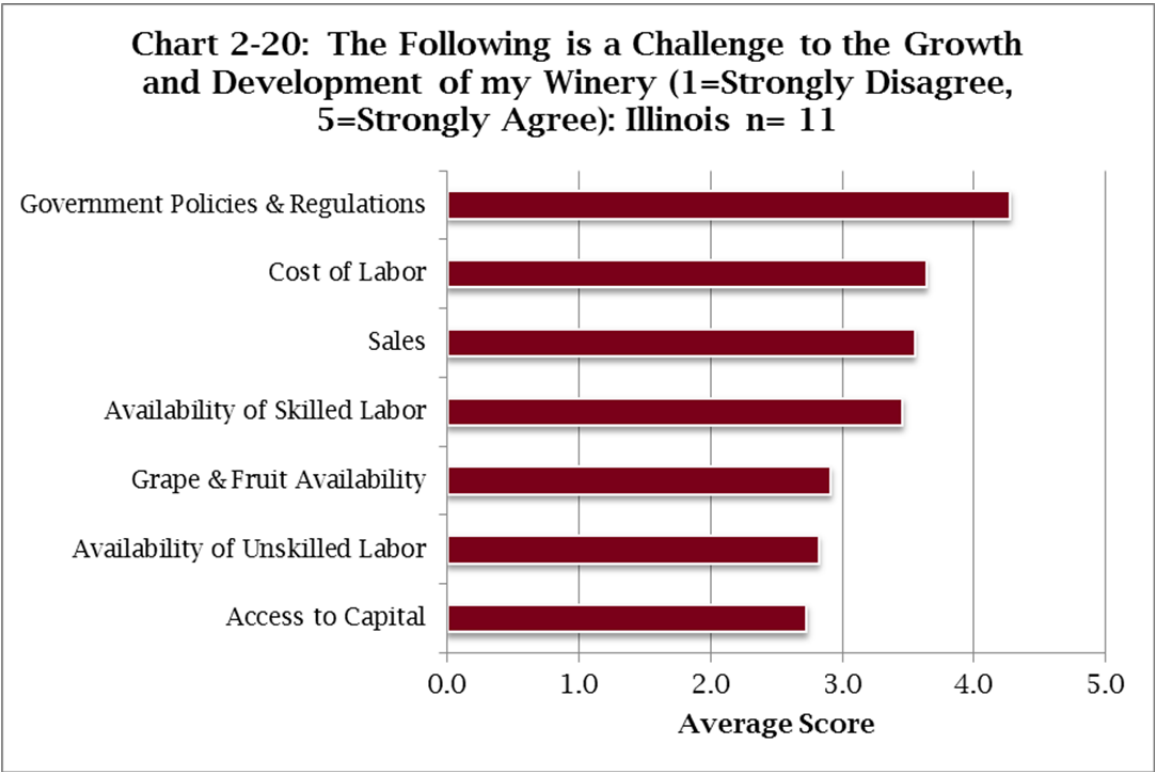


Chart 2-20 depicts winery owners' responses to a question about the challenges to the growth and development of their winery. On a scale where 1 equals "strongly disagree" and 5 equals "strongly agree", wineries were asked to rate a list of issues in relation to each as a challenge to the growth and development of their winery. Wineries rated government policy and regulations and cost of labor as the biggest threats to their wineries. Access to capital and availability of unskilled labor received the lowest average ratings.



ECONOMIC CONTRIBUTION OF VINEYARDS AND WINERIES IN ILLINOIS

The economic contribution of an industry is comprised of direct and secondary effects. Direct effects are economic activities generated by the industry itself. For example, spending by grape growers to purchase trellising supplies is a direct effect. Spending by wineries to purchase bottles is also a direct effect. Secondary effects are economic activities triggered by the initial spending. When a grape grower purchases trellising supplies, the manufacturer of the supplies must produce more, creating additional economic activity. When a winery buys bottles, the glass manufacturer must produce more, thus increasing output.

Direct Effects

In measuring the economic contribution of the grape growing and winery industries in Illinois, the first step is to measure the direct effect of the industries. In other words, producers were asked to report how much they spent in 2011. Researchers used data gathered in the Northern Grapes Project baseline study for this purpose. The data collected in the study were used to derive averages per winery and per vineyard. These averages were extrapolated to the total population of wineries (109 in Illinois) and vineyards (316 in Illinois) to determine the total direct effect for the state.

Wineries and vineyards contribute to Illinois' economy through three primary methods. One, vineyards make purchases for inputs and for labor. Two, wineries make purchases for inputs and for labor. Three, wineries attract visitors, typically through tasting rooms. These tourists make purchases during their visit which stimulate economic activity in the state. The direct contributions of each of these components are shown in table 3-1. These are the direct effects of the grape growing and winery industries in Illinois.

Illinois vineyards, in 2011, spent \$4.7 million within the state to operate. This included \$1.7 million of payments to their 1,250 employees. This equates to an average wage of \$1,370 per employee. In this study, one job is treated as one job, regardless if the job is full-time, part-time, or seasonal. In fact, participating vineyards report that the majority of their employment is part-time, seasonal employment, particularly at harvest time.

Illinois wineries, in 2011, spent \$43.2 million within the state for their operations. Of this, \$10.0 million went to their 1,020 employees. Total winery sales, as mentioned in the winery summary, were \$48.9 million in 2011. Of this, \$5.7 million in purchases were for grapes. Since grape sales are included in the vineyard impact, they are excluded here to avoid double counting. Wineries also rely on part-time employment. On average, each winery employs 4 full-time, year-round people and 4 part-time, year-round people, as shown in chart 2-13.

Finally, winery tourists in 2011 spent \$27.9 million during winery visits. These expenditures supported 400 jobs in Illinois which in total paid \$9.8 million in labor income. A winery tourist was defined as a person who indicated the winery was a primary motivator of their trip to the area. The number of winery visitors was extrapolated from winery responses regarding the number of tasting room customers in 2011. For a more in-depth explanation of the process used to calculate the number of winery tourists, please see appendix three.

Table 3-1: Direct Economic Effects of Vineyards, Wineries, and Winery Tourists, Illinois, 2011

	Vineyards	Wineries	Winery Tourists
Output	\$4,710,000	\$43,160,000	\$27,900,000
Employment	1,250	1,020	400
Labor Income	\$1,710,000	\$10,040,000	\$9,750,000

Estimates by University of Minnesota

Indirect and Induced Effects

Now that the direct impacts of vineyards, wineries, and wine tourists are quantified, the data can be entered into an input-output model. Input-output models trace the flow of dollars throughout a local economy and can capture the indirect and induced, or ripple effects, of an economic activity. The input-output modeling software and data from RIMS II (Bureau of Economic Analysis) was used in this report.

Indirect effects are those associated with a change in economic activity due to spending for goods and services. In this case, these are the changes in the local economy occurring because vineyards and wineries need to purchase inputs (trellises, bottles, etc.) and related services (viticulture support, label design, etc.). These are business-to-business impacts.

Induced effects are those associated with a change in economic activity due to spending by the employees of businesses (labor) and by households. Primarily, in this study, these are economic changes related to spending by vineyard and winery workers hired to perform the vineyard and winery tasks. These are business-to-consumer impacts.

Total Economic Effects

The total economic contribution of an industry is calculated by adding the direct, indirect, and induced effects. In 2011, the total economic contribution of the grape growing and winery industries in Illinois was an estimated \$164.3 million. This includes 4,640 jobs and \$59.3 million in labor income, as shown in table 3-2.

Table 3-2: Total Economic Effects of Vineyards, Wineries, and Winery Tourists, Illinois, 2011

	Vineyards	Wineries	Winery Tourists	Total
Output	\$9,280,000	\$93,730,000	\$61,330,000	\$164,340,000
Employment	2,100	1,900	640	4,640
Labor Income	\$3,780,000	\$36,650,000	\$18,900,000	\$59,330,000

Estimates by University of Minnesota

Vineyards in Illinois contributed \$9.3 million to the state economy in 2011. This included payments to workers in the amount of \$3.8 million. The vineyard industry contributed to the employment of 2,100 people.

Wineries in Illinois contributed \$93.7 million in economic activity to the state in 2011. Wineries generated employment for 1,900 workers who received \$36.7 million in labor income.

Winery tourism also contributed significantly to the Illinois state economy. Spending by tourists visiting Illinois wineries generated \$61.3 million in economic activity. This includes \$18.9 million in labor payments and 640 jobs.

Cold-Hardy Related Economic Effects

Surveyed grape growers reported 63 percent of the grapes grown in Illinois are of cold-hardy varieties as measured by the number of vines planted (see appendix one for a definition of cold-hardy).⁴ Wineries indicate 57 percent of the grapes used in wine production in Illinois are from the cold-hardy cultivars.

In 2011, cold-hardy grapes contributed \$94.2 million to the output of the state of Illinois including \$34.0 million in labor income. They contributed 2,790 jobs, as shown in table 3-3.

	Vineyards	Wineries	Winery Tourists	Total
Output	\$5,840,000	\$53,430,000	\$34,960,000	\$94,230,000
Employment	1,320	1,100	370	2,790
Labor Income	\$2,380,000	\$20,890,000	\$10,760,000	\$34,030,000

Estimates by University of Minnesota

Comparing Results to Previous Studies

Private consultants have also measured the economic impact of the grape growing and winery industries in Illinois. These studies have taken a different methodological approach to measuring the direct effect of the industry. In this study, University of Minnesota researchers followed established methodological practices in determining the direct effect.

⁴ Ward (2012) found that 30% of commercial planted acreage were the cold-hardy varieties used in this report.

SUMMARY AND CONCLUSIONS

In spring 2012, grape growers and winery owners in 13 states were surveyed under the Northern Grapes Project. Questions asked pertained to sales and production (wineries and vineyards), growing practices (vineyards), and operating practices (wineries). The goal was to establish industry baselines and quantify the economic contribution of the industries. This report presents the results for Illinois.

In 2011, the total economic contribution of the grape growing and winery industries in Illinois was \$164.3 million. This includes 4,640 jobs and \$59.3 million in labor income. Vineyards contributed \$9.3 million to the total, wineries \$93.7 million, and winery tourists \$61.3 million.

Cold-hardy grapes, through their production and use in wine, contributed \$94.2 million to the Illinois economy in 2011. The cold-hardy grape industries supported employment for 2,800 people whose labor income exceeded \$34.0 million.

Indications are the vineyard and winery industries in Illinois may be maturing. Rapid growth in the number of new wineries and new vineyards occurred between 2002 and 2007. Since 2007, the number of new operations launching has declined. However, established wineries and vineyards indicate they have and plan to continue to grow. Two-thirds of surveyed vineyards indicated they had added additional acreage since their initial establishment. Forty-four percent of vineyards plan to increase in the next two years (although 52 percent plan to stay the same size). Ninety-one percent of wineries plan to increase in size in the next five years.

In general, vineyards in Illinois are larger in size and production than vineyards in other participating Northern Grapes project states. Consistent with the indications of growth in the industry, vineyard operators report 51 percent of their expenditures in 2011 were on capital investments. Pests/insects and disease are rated by vineyard operators as the largest challenges to the future growth and development of Illinois vineyards.

Vineyards in Illinois are planting cold-hardy grapes. Of the white cold-hardy varieties, La Crescent and La Crosse are planted in the highest numbers. Of the red cold-hardy varieties, Frontenac and Marechal Foch are the most commonly planted. The Marquette grape, released in 2006, is being adopted in Illinois, but not at the rapid rates observed in some of the other Northern Grape project states.

Tasting rooms and winery visitors are of high importance to the success of Illinois wineries. Survey results from Illinois reveal 73 percent of a winery's sales are through the tasting room; yet 78 percent of wineries are located in rural areas. Wineries, therefore, must be bringing customers and tourists into the community. One method wineries use to attract tourists is to host special events. In support of this, Illinois wineries are collaborating with their local tourism organizations, such as Convention and Visitor's Bureaus.

Wineries view government policies and regulations and the cost of labor as the two biggest challenges to the future growth and development of their winery in Illinois.

APPENDIX ONE: PARTICIPATING INDUSTRY ASSOCIATIONS

The following industry associations/councils provided membership lists for the baseline and economic impact survey of the Northern Grapes Project.

Connecticut Vineyard and Winery Association

Illinois Grape Growers and Vinters Association

Iowa Wine Growers Association

Lake Champlain Wines

Massachusetts Farm Wineries and Growers Association

Michigan Grape and Wine Industry Council

Minnesota Grape Growers Association

Nebraska Winery and Grape Growers Association

New Hampshire Winery Association

New York Wine and Grape Foundation

North Dakota Grape and Wine Association

Northern Illinois Wine Growers

Scenic Rivers Grape and Wine Association

South Dakota Specialty Producers Association

South Dakota Winegrowers Association

Upper Hudson Valley Wine and Grape Association

Vermont Grape and Wine Council

Western Iowa Grape Growers Association

Wisconsin Grape Growers Association



APPENDIX TWO: DEFINITION OF COLD-HARDY GRAPES

Defining a cold-hardy grape is not as straightforward as one might imagine. What is considered cold-hardy in one region may not be considered cold-hardy in another. For purposes of this study, researchers classified the following cultivars as cold-hardy. This was done in consultation with the Northern Grapes project advisory team which is comprised of growers in each of the states.

Table A-1: Cold-Hardy Red Varieties

Baltica
Beta
Frontenac
GR-7
King of the North
Leon Millot
Marechal Foch
Marquette
Other red Swenson
Petite Pearl
Sabrevois
St. Croix
Valiant

Table A-2: Cold-Hardy White Varieties

Brianna
Edelweiss
Esprit
Frontenac blanc
Frontenac gris
Kay Gray
La Crescent
La Crosse
Louise Swenson
Other white Swenson
Petite Amie
Prairie Star
St. Pepin

APPENDIX THREE: WINERY TOURIST AND EXPENDITURE CALCULATIONS

Three critical pieces of information are necessary to calculate the economic impact of winery tourists. First, researchers need an estimate of the number of winery visitors in a certain time period. Second, researchers need to know the motivations of these winery visitors and the number of visitors from outside the region (local area). Third, researchers need an average spending profile for each tourist.

For purposes of this study, the total number of winery visitors in each state was extrapolated from the winery survey. Winery owners were asked to estimate the number of customers their tasting rooms entertained in 2011. Event attendees (e.g. weddings, new release parties, etc.) are assumed to be a subset of the total number of tasting room customers. The average number of customers was then applied to all wineries.

Economic impact theory stipulates that impact is driven by dollars from outside the region. Local residents may visit a winery and spend money, but theoretically, they would have spent those dollars in the local economy on another leisure activity if the winery were not located in their community. The number of tasting room customers, therefore, has to be adjusted to represent only those from outside the community who have traveled to the area specifically to visit a winery. These visitors are hereafter referred to as winery tourists. Research on tasting room customers in Michigan (conducted by Michigan State researchers Don Holecek and Dan McCole as part of the Northern Grapes Project) indicates that approximately two-thirds (67 percent) of tasting room visitors are tourists.

Since economic impact theory further instructs that economic impact is only attributable to a business or an event if the business or event is the primary purpose for the tourism activity, the final number of winery tourists was calculated by estimating the number of tourists in the area due to the presence of the winery. If a tourist visits a winery while in town celebrating a wedding, the wedding is the primary purpose of the visit and should be credited with economic impact and not the winery. Tasting room research, conducted by Michigan State researchers, determined the winery itself was a driving factor in 49 percent of visits to the winery.

With the number of winery tourists quantified, researchers need to apply an average spending profile to determine total spending by winery tourists. In Illinois, the spending profiles from Enjoy Illinois were used. Total per person spending was estimated at a conservative \$88 per day.

The winery tourist economic impact calculations are arguably the most complex of this report. Future research into the economic impact of wineries and vineyards in Illinois would be greatly enhanced by 1) doing tasting room customer surveys in Illinois and 2) developing a spending profile specifically for Illinois winery visitors.