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STATE FUNDED MARKETING AND  
PROMOTIONAL ACTIVITIES TO  
SUPPORT A STATE'S WINERY  
BUSINESS

Roger D. Hanagriff, Michael Lau  
and Sarah L. Rogers

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# **State Funded Marketing and Promotional Activities to Support a State's Winery Business; Are There Economic Returns?: A Case study using Texas Senate Bill 1370's support of the Texas Wine Industry**

Roger D. Hanagriff, Associate Professor at Texas A&M University – Kingsville  
Michael Lau, Assistant Professor at Sam Houston State University  
Sarah L. Rogers, Graduate Student at Sam Houston State University

## **Abstract**

Texas wineries were surveyed regarding their participation in wine marketing activities, annual changes in gross sales, and level of sales growth attributed to Texas Department of Agriculture's funding support. The response from the 93 registered Texas wineries was 53 wineries, which was a 57 percent response rate. Senate Bill 1370 allocated \$725,000 for marketing and promotion of Texas wines. Combining the \$725,000 with the normal funding of \$250,000 creates \$975,000 in annual support to the Texas wine industry to be used in marketing Texas wine.

The most utilized funded activities are promotional materials and wineries attending TDA supported wine events. Ninety-two percent of Texas wineries recognized an increase in awareness for the Texas wine industry and attribute 49 percent of the increase to state marketing efforts and use of state funding. As previously mentioned, a portion of TDA marketing funds were directed towards supporting wine events in Texas attracting large numbers of consumers for promotional opportunities. Consumers attending these events were surveyed and one result found that 68 percent of consumers reported these events encouraged them to purchase more Texas wines.

Annual economic impact results from all funding activities were \$2.16 per \$1 of funding of total direct sales increases, \$3.93 per \$1 of funding in economic impacts of increases in sales and \$.40 per \$1 of funding in valued added impacts (based on IMPLAN Type II Economic Multiplier values). It is apparent that both direct and indirect economic results were positive towards program funding and created economic growth in local economies.

## INTRODUCTION

### Texas Wine Marketing Assistance Program

The Texas Legislature created the Texas Wine Marketing Assistance Program (TWMAP) in 2001 under the Texas Department of Agriculture (TDA). TWMAP is charged with assisting the Texas wine industry in promoting and marketing Texas wines and educating the public about the Texas wine industry.

As part of its mandate, the program assists in all aspects of the industry around the state in promoting Texas wine. Some of the efforts include promotional materials such as posters, recipe cards and winery guides to be distributed free of charge to customers. Additional efforts include working with wineries to promote the production and market exposure for Texas wines. The base funding for this program is \$250,000 annually.

### Senate Bill 1370

A new source of funding surfaced in 2006 to increase money for previous market assistance areas as well increasing investments in other areas such as education, strategic planning, and quality measurement. The funds are divided into three categories which include education, market research, and promotional activities. The budget is a two year allocation divided annually to compare to economic benefits. Table 1 is a summary of Senate Bill 1370 funding and directly related funding to economic impacts of Texas wineries.

Table 1.0 Senate Bill 1370 Funding Summary

Funding Categories	2006 & 2007 Funding (2 year)	2007 Funding (1 Year)	Directly Related to Economic Growth
Research and Education	\$ 2,216,000.00	\$ 1,108,000.00	No
Market Research	\$ 424,000.00	\$ 212,000.00	No
Promotional Activities (Removes TWMAP 500K)	\$ 1,450,000.00	\$ 725,000.00	Yes
Total Funding	\$ 4,090,000.00	\$ 2,045,000.00	\$ 725,000

The 2007 funding of promotional activities (\$725,000) includes promotional materials, consumers outreach, media relations, event support, administrative payroll, and operating expenses. These types of expenses are similar to TWMAP expenses. These funds are related to expanding annual growth of the Texas wine industry, and hopefully assist in increases gross sales. Total funding for this area is \$725,000 new funds and the \$250,000 in TWMAP for a total funding base of \$975,000 that is used to promote the Texas industry.

## REVIEW OF LITERATURE

With the Agricultural Marketing Act of 1946, Congress declared a sound, efficient, and privately-operated system for distributing and marketing agricultural products. The act identified that this system is essential to insure prosperous agriculture and is indispensable to the

maintenance of full employment and the welfare, prosperity, and health of the nation (Caswell, 1997).

GO TEXAN is a marketing initiative by TDA promoting all Texas agricultural products – food, fiber, wine and horticulture – under one easily recognized trademark: a glowing brand in the shape of Texas. Wine is targeted commodity in the Texas brand of products and has a program similar to other commodities programs that focus on fiber, livestock, and general agricultural business development.

A comparable agricultural marketing program is the Jersey Fresh Program established by the New Jersey Department of Agriculture. This state's sponsored program was implemented to promote locally grown fruits and vegetables with the intention of increasing the profitability of New Jersey farms and the viability of local agriculture (Govindasamy, Italia, and Thatch, 1998). A study of this program reported that over 87% of people surveyed said they would prefer to purchase produce grown locally, while 75% said they would even be willing to pay a premium for the Jersey Fresh produce (Govindasamy, Italia, and Thatch, 1999). A follow-up study in 2005 revealed 75 percent of random sample of consumers in New Jersey were familiar with the Jersey Fresh logo (Govindasamy, Sullivan, Puduri, Schilling and Brown, 2005).

There are many potential reasons why a state marketing program may work. Researchers at Rutgers University (Adelaja, Brumfield and Lininger, 1990) identified a growing interest among states to assist in marketing agricultural commodities. According to Holloran and Martin, (1989), policymakers typically seek to promote (a) products that have certain state characteristics, (b) promote unique products, and (c) attempt to gain economic returns. Many states have created wine programs to assist producers in the production and marketing of state grown wines. The Indiana Wine Grape Council states that since its creation in 1989, the number of Indiana wineries has increased from 9 to 30. Additionally, Indiana agriculture has seen more than a 300 percent increase in wine-grape acreage since 1991. In New York, enologists and viticulturists at Cornell University have assisted the 253 wineries experience positive annual growth.

The wine industry in Oregon provides more than \$1.4 billion in economic activity for the state. According to the Oregon Wine Center, this impact is reflected in wages, revenue, taxes, and spending on agricultural technology and supplies for Oregon's wine and wine grape industries.

California's wine industry has the largest economic impact compared to other wine producing states and is the fourth largest wine producer in the world. Current figures show there are 1,294 wineries in California. The wine and grape industry supports more than 207,000 full-time employees with a combined income totaling more than \$7.6 billion. Tourism is one of the many factors working to promote the wine industry in California. There are an estimated 14.8 million visitors each year who spend more than \$1.3 billion while they are in the state.

## **RESEARCH OBJECTIVES**

The objective of this study is to evaluate the effectiveness of a state marketing programs ability to assist an industry to meet objectives or goals. Common goals such as growth, increasing

exposure to customers and increasing market share and or market recognition are common threads of industry success. An evaluation of these types of parameters may then be used to prove how well activities meet the program objectives (Jensen and Pompelli, 1998). Little research has been conducted to analyze the factors that contribute to the awareness of state-sponsored marketing programs giving the need for further investigation into the effectiveness of such programs (Govindasamy, Italia, and Thatch, 1998). Specifically, the purpose of this study was to evaluate the economic returns of state funding directed toward the Texas wine industry.

## **SURVEY METHODOLOGY**

According to a 2005 report from the Texas Wine Marketing Institute (2005), there are 127 wineries in Texas, which illustrates dramatic industry growth from the previous decade of less than 50 wineries state-wide. Some wineries have multiple locations, and for the purpose of this research were summarized into one winery business. An adjusted population for this assessment includes 93 wineries that are current TWMAP associated wineries.

Beginning in August 2007, emails surveys were sent to wineries to request their response that measures growth of the industry, their involvement in marketing programs, and other assessment questions. Two follow-up emails were sent in September to increase responses. In October, follow-up phone calls requested wineries to fax their surveys. The total response of 53 of the 93 wineries is a 57 percent response rate and is adequate to extrapolate results to the entire industry of 93 wineries.

Extrapolating conservative results to the entire industry is accomplished by using a 95 percent confidence interval on the mean values of the 53 responding wineries. This conservative approach creates a value that adjusts for deviations in the sample and sample size. The survey instrument included demographic questions as well as questions to quantify annual gross sales, annual changes in sales, and winery on-site visitations. An additional set of questions was targeted to collect their opinions of marketing approaches to enhance the growth of the wine industry in Texas, but this report focuses on marketing activities and sales related to those activities. Respondents were also asked about their attendance to Texas wine events and their wineries resulting sales. Respondents were also asked if they had plans for expanding production or tourism services.

## **DEMOGRAPHICS OF WINERY RESPONDENTS**

### **Demographics of Texas Wineries Compared to Program Funding**

To determine the size of wineries involved, respondents were asked to report their total annual gross sales. Wineries in this assessment averaged \$704,000, which is a dramatic increase over the 2006 report value of \$367,000 annual gross sales. The 95 percent confidence mean sales value is \$440,545 and is the value used to predict total industry value and represent the data in this report.

Utilizing the confidence mean and extrapolating to all 93 wineries, the annual 2007 gross sales of the industry is approximately \$41 million (93 wineries \* \$440,545= \$40.9M). This includes

gross sales of wine through the tasting room and other sales through more traditional methods such as whole sale distribution.

The economic value to Texas is found by utilizing the IMPLAN economic multiplier value for the wine/grape industry (\$1.82) and total industry gross sales. The total economic value based on gross sales is \$74.6 million ( $\$1.82 * \$40.9$  million), which is a significant economic value to the Texas economy. Total budget cost include \$250,000 in TWMAP funding and Senate Bill 1370 \$2,045,000. The direct marketing budget represents \$975,000 of the \$2,295,000 in annual funding, which equates to 43 percent in marketing activities and 57 percent in education, research, quality control and strategic planning. Table 2.0 illustrates a summary of total wine budget expense and compares the value to economic industry value.

Table 2.0 A Comparison of Total Budget Cost to Economic Value

Annual Wine Budget Expense (TWMAP+SB1370)	\$ 2,295,000
Total Estimated Winery Annual Revenue	\$ 40,970,751
Total Economic Value of Wine Sales	\$ 74,623,430
Percent Budget Support of Total Economic Value	3%

As table 2 illustrates, three percent of the industry economic value is represented in total annual funding. This illustrates that the industry is supported primarily by private investment and not funded by government funding as only three percent of the industry’s economic value is program funded.

Sixty-four percent of responding wineries reported sales of less than \$500,000, which is a small to mid-size business when considering gross sales. Seventeen percent of the wineries reported sales between \$500,000 and \$1 million, and are considered above average sized wineries. Thirteen percent of responding wineries reported sales of over \$1 million and are considered large wineries.

Wineries were asked if they had expanded operations during the past year. Sixty-nine percent of the responding wineries indicated that they had expanded their winery operations sometime during the past year. One targeted assessment of winery expansion includes planted acres of grapes. Eighty-one percent of wineries have some level of planted grape acres.

## WINERIES’ PERCEPTIONS OF TDA MARKETING ACTIVITIES

### Participation in Wine Marketing Activities

TWMAP assists wineries with various activities including education, tasting and events, invitations to GO TEXAN events, and the use of TDA promotional materials. Respondents indicated which marketing activities they utilized or been involved with during the past year. Figure 1 illustrates the percentage of wineries participating in specific activities.

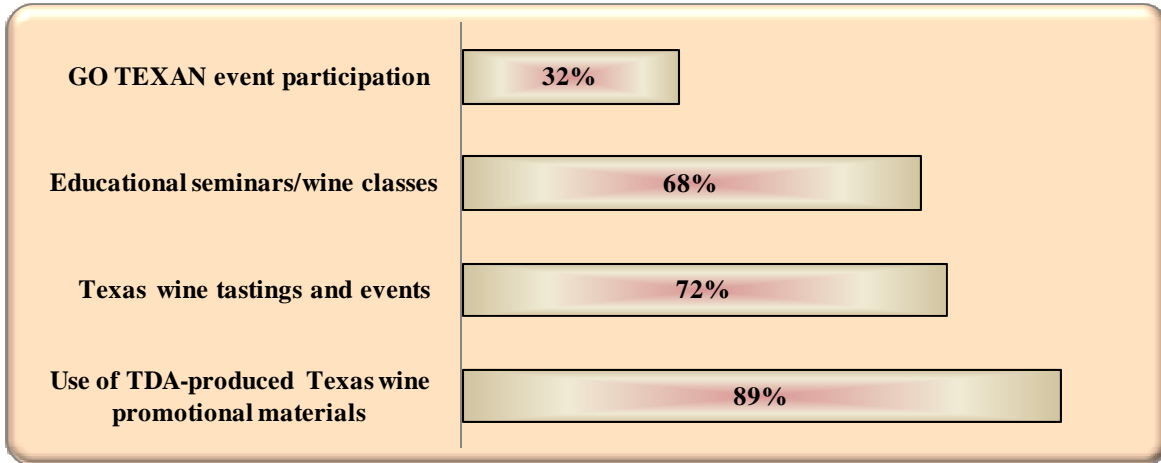


Figure 1. Percent of Wineries That Recognize Participating in Marketing Activities

Using promotional materials is the most widely recognized marketing activity (89%). Winery tastings and educational classes are also frequent marketing activities. However, some activities are not available to all wineries based on their location and business operation.

### Effectiveness of Promotional Materials

The most utilized marketing activity was promotional materials (Figure 2). This is a common marketing activity, so survey questions focused on measuring the effectiveness of different types of promotional materials. Figure 2 illustrates which promotional materials are the most recognized by wineries as effective in promoting Texas wines.

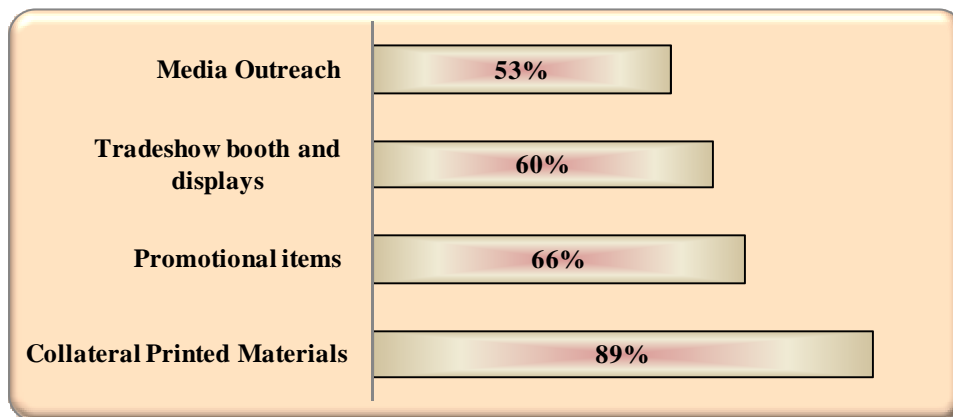


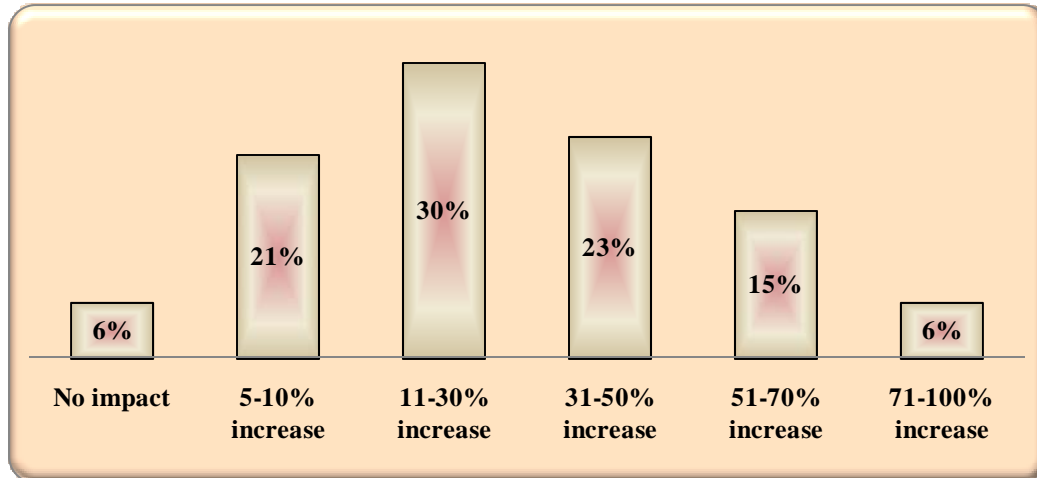
Figure 2. Percent of Wineries Rating Effective Promotional Materials

More than half of the respondents rated all estimated areas of promotional materials as effective in promoting Texas wines. Collateral printed materials (Winery Guide, One-Minute-Pocket Guide, Rising Star publication, and the Grape Growers Guide) were recognized by a majority of wineries as an effective promotional material (89%).

### Industry Awareness of Texas Wines



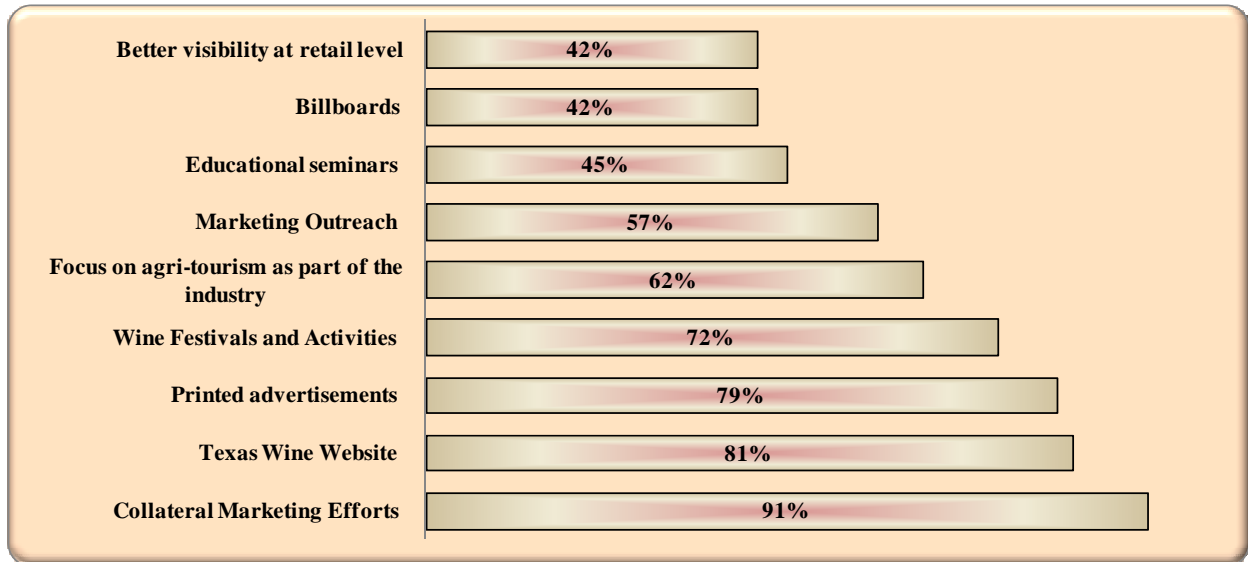
Awareness is difficult to measure, but the survey instrument included a question for wineries to measure their perceived perception of Texas wines. Ninety-two percent indicated there is some level of increased awareness for Texas wine. This is likely evident to their business as increasing sales, increasing customer contacts, and increasing request for their wines.



*Figure 3. Overall Awareness of Texas Wine Industry Resulting from TDA Efforts*

Respondents were also asked to indicate their perceived value of industry awareness attributed to TDA's wine marketing efforts. The most recognized awareness category is 11 to 30 percent. This identifies that most wineries feel the overall awareness of the Texas wine industry has increased by 11 to 30 percent as a result of TDA's wine marketing efforts. The average numerical value using the mid-point values attributed to TDA's marketing efforts is 49 percent with 0 representing the no impact category.

As previously mentioned, wineries recognize TDA is responsible for some of the growth, but the aspects of what is causing a growth in awareness is important for assessment. Figure 4 illustrates which activities were identified by responding wineries to have the greatest impact on increasing awareness of Texas wines.



*Figure 4. Activities and Expected Causes for Increasing Awareness of Texas Wines*

Collateral marketing efforts, Texas wine website, and printed advertisements were all recognized activities contributing to increased awareness of Texas wines. Educational seminars, billboards, and better visibility at retail level were not as highly recognized as the other activities on the survey. All the results are illustrated in figure 4.

### **Wineries Results in On-site Visitations**

Winery visitations is a strategy used to market and promote the winery. Previous reports have consistently identified visitations to the wineries as directly related to increases in sales. Currently, 92 percent of wineries reported increased on-site visits. This is an increase from the 85 percent value in the 2006 report. Increased visits generate positive economic impacts to the Texas economy. The most recognized winery visitations category increase is 11 to 30 percent. The numeric mid-point value for increases is a 32 percent increase in winery visitations.

An additional question in this assessment was tourism services offered at each winery. Offering tourism services brings customers to the winery and potentially increased sales. Figure 5 illustrates the percent of wineries that offer the different tourism related services.

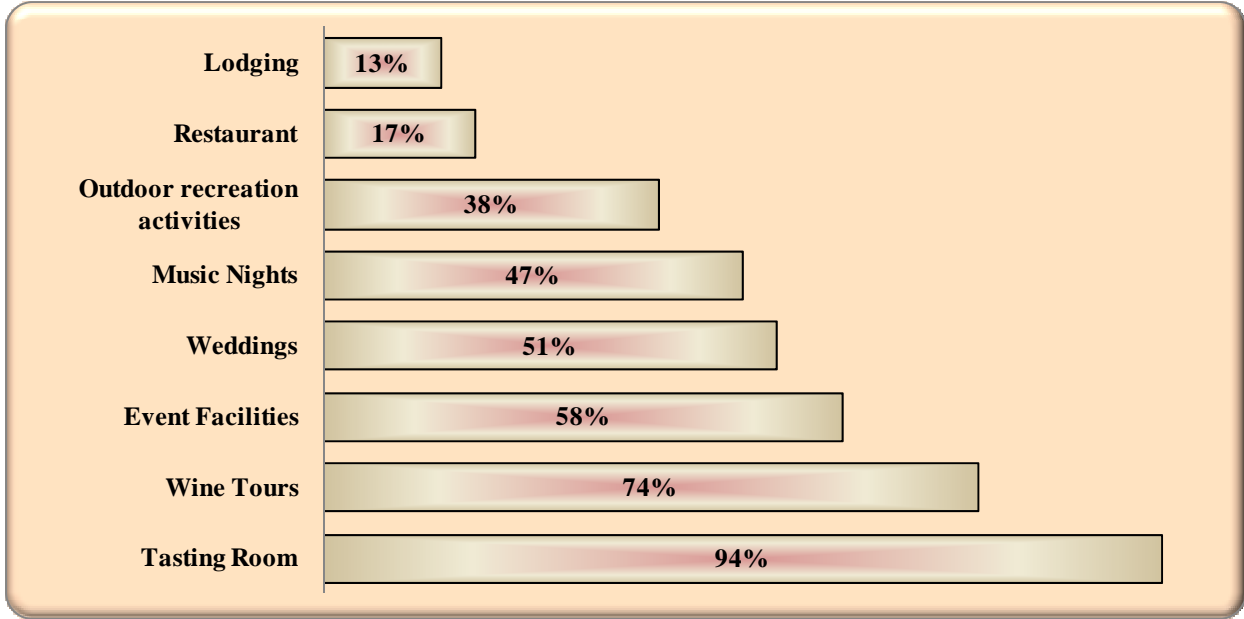


Figure 5. Tourism Related Activities Offered by the Winery

The majority of wineries indicated that they offered tasting rooms (94%) and wine tours (74%). Approximately 50 percent of wineries offer facilities (58%), weddings (51%) and music nights (47%). Less frequently offered tourism related services are outdoor recreations, restaurants and lodging (figure 5).

**MARKETING ACTIVITIES CORRELATED TO INCREASES IN SALES**

Pearson correlations determine if there are statistical relationships between variables. Correlations are used to determine relationships between TWMAP variables and likely program objectives such as increased sales.

Pearson correlations are a linear measure of association between the variables and are represented by the following equation for variables X and Y.

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{(n - 1)S_X S_Y}$$

The following correlations are significant at the p<.05 level and represent positive relationships.

**Attending TDA Wine Events**

A positive correlation was found between wineries that attended wine events and increases in sales (r=.380, p<.05). This relationship shows that wineries which attended events had greater sales.

### **On-site Visitations**

A positive correlation was found between wineries that recognized on-site visits and percent increases in sales ( $r=.435$ ,  $p<.05$ ). This identifies that visitations to wineries create higher increases in sales.

### **Percent Increases in Sales Related to TDA Support**

A positive correlation was found between wineries that recognized TDA impacts to their sales increases and increases in total sales ( $r=.482$ ,  $p<.05$ ). This shows that wineries identifying increases in sales were wineries that also recognize TDA impacts their sales. This verifies the previous hypothesis wineries recognizing TDA support are experiencing higher increases in sales.

### **Diversity of Winery Services Related to Increases in Sales**

A positive correlation was found between wineries that offer services such as tasting rooms and tours and gross sales ( $r = .366$ ,  $p<.05$ ). This shows that the more tourism services a winery offers, the higher their potential for gross sales.

## **ECONOMIC IMPACT FROM STATE SUPPORTED MARKETING**

As previously mentioned, allocated budgets for the 2007 Texas wine industry include \$250,000 of original TWMAP funding and \$725,000 in promotional funding. The aspects of each provide insight to the effectiveness of program funding. This funding is compared to wineries increases in revenue and the resulting economic impact by utilizing the IMPLAN \$1.82 economic multiplier.

### **Economic Impact of Sales Increases from TWMAP**

Respondents were asked to report their un-audited annual sales totals and their average annual sales increases over the past year in order to assess the economic impacts. The information from the wineries is utilized to measure the total value of the industry, measure increases in gross sales, measure the economic impacts from increases in sales, and measure value added impacts to the Texas economy.

Wineries reported their sales have grown 33 percent over the previous year's level of gross sales. Considering the growth in sales and using a 95 percent confidence estimate, in 2007 wineries averaged \$125,109 in increased gross sales. Considering the 93 wineries in Texas, the extrapolated total value for increases in winery gross sales is \$11.6 million ( $93 * \$125,109$ ).

State support may not be able to take full credit for the sales increases, but respondents indicated that the program has a positive impact on the Texas wine industry. To provide more detail, wineries reported 18 percent of their increases in sales are directly attributed to efforts of state

support. This value communicates that 18 percent of the \$11.6 million in sales increases or \$2.1 million is directly associated to efforts of TWMAP and Senate Bill 1370 (\$11.6M \*0.18).

As previously mentioned, economic impacts are derived from industry sales and represent the total economic value to the Texas economy. The previous direct sales value of \$2.1 million and using the IMPLAN model value of \$1.82 creates a direct economic value of \$3.8 million (\$2.1 million \* 1.82 IMPLAN).

In addition to economic impact, the IMPLAN model also estimates value added economic benefits, which includes value-added during the production process. Considering direct sales increases of \$2.1 million, there is an increased value-added impact of \$385,390 (\$2.1 million \* \$1.82 IMPLAN Valued Added \$0.183) that are directly related to state support. Table 3 is a summary for increases in winery sales along with sales increases related to the efforts of Texas Department of Agriculture’s marketing efforts.

Total Sales Increases (all wineries)	\$ 11,635,111
Percent Sales Increases Wineries Attribute to TWMAP	18%
Sales Dollars Directly Related to TWMAP	\$ 2,105,955
Direct Economic Benefits of Sales Increases (\$1.82)	\$ 3,832,838
Direct Value Added Benefits of Sales Increases (\$0.183)	\$ 385,390

### Economic Impact of Total Market Outreach

State winery funding from the original \$250,000 to the new level of \$975,000 (includes the \$250k + marketing associated budget \$725k) were hopeful to create economic industry growth, which can be measured by return on investment values. Table 4 illustrates the summary of direct sales increases and associated economic impacts related to the new budget allocations.

Total Direct Increases in Sales	\$2,105,955
Total Direct Economic Value	\$ 3,832,838
Total Direct Value Added Value	\$ 385,389
Total Annual Program Cost	\$ 975,000
<b>Return on Investment Values (ROI)</b>	
Direct Sales Increases per \$1 of Program Cost (\$2.1m / 975k)	\$ 2.16
Direct Economic Returns per \$1 of Program Cost (\$3.8 m / 975k)	\$ 3.93
Direct Value Added Returns per \$1 of Program Cost (385k / 975k)	\$ 0.40
Total Economic ROI for TWMAP (\$3.93+\$0.40)	\$ 4.33

Table 4 shows there is a \$2.16 increase in sales directly related to \$1 in total marketing funds. This increase in sales represents \$3.93 in economic value for \$1 in funding. Value-added increased by \$.40 per \$1 of invested value, which adds to the total economic return.

## **CONCLUSIONS AND RECOMMENDATIONS**

This report illustrates a developing industry that is mostly constructed of small initial developing businesses. These firms have received support funding to assist in market growth and the growth has created positive economic impacts. Program funding, which includes annual funding of TWMAP and Senate Bill 1370 for a total of \$2,295,000 represents only three percent of the wine industries 74.6 million dollar economic impact to Texas.

Other reports have totaled labor and other value added impacts to reach \$1 billion in wine industry value to the Texas economy, so this funding is a small portion of the industry, but seems to offer significant economic returns. The primary funding target for the majority of state funds is long-term education and research with a smaller portion of the budget (\$975,000 of the \$2.3 million) allocated to marketing Texas wine.

In this paper, a conclusion is that funding is economically viable as it encourages economic growth. Texas wineries report that 49 percent of increases in awareness are direct results of TDA funding. A more targeted response value is that wineries reported 18 percent of their 33 percent increase in sales is attributable to TDA's marketing efforts. Economic benefits stem from wineries using collateral marketing materials and attending wine events to make consumers more aware of the wine industry in Texas, which based on some pilot consumer data, is being achieved.

Total return on investment includes TWMAP and the annual marketing budget of Senate Bill 1370. Total annual funding is \$975,000, which results in a \$3.93 economic impact and \$.40 in value-added impacts per \$1 in program funding. These return on investment values exhibit positive impacts to the industry, which translates to positive impacts to the Texas economy. Wineries that increased their involvement in state supported events and supported tourism events at their wineries exhibit positive relationships to increases in sales and are likely the driving force behind these economic returns. This would direct the industry to become more involved in state sponsored events.

A recommendation from this report includes continuing the marketing and promotions efforts to maintain economic growth. Sales increases were correlated to wineries that attended wine events, recognized increases in on-site visitations and wineries that offer tourism services. A further recommendation is to increase funding to increase these efforts as they are valuable to industry growth.

Another recommendation is to increase funding the wine industry. The current level of funding compared to direct economic industry value is only three percent of the industry. If considering the total industry such as employment and other sectors, the funding percentage is nearly non-existent. The industry mainly consists of small businesses located in rural areas of Texas. This report and previous research has shown continued industry growth over state funding. It is very

likely that increased funding would cause greater increases in value, which supports rural economic development and small businesses and at the same time brings tax and economic value back to Texas. The state funding share is low and this program shows economic potential and positive economic returns to state funding.

## REFERENCES

- Adelaja, A., Brumfield, R., and Lininger, K. (1990). Product differentiation and State promotion of farm produce: An analysis of the Jersey Fresh Tomato. *Journal of Food Distribution Research*, 21(3). 73-86.
- California Wine's Economic Impact Is Significant, 2005. Source: Wine Institute -- The Voice for California Wine. Retrieved from [http://cbs5.com/local/local\\_story\\_222164528.html](http://cbs5.com/local/local_story_222164528.html) on November 17, 2006
- Caswell, J. (1997). Rethinking the role of the government in agri-food markets. *American Journal of Agricultural Economics*, 79(2). 651-656.
- Govindasamy, R., Italia, J., and Thatch, D. (1998). Consumer awareness of state-sponsored marketing programs: An evaluation of the Jersey Fresh program. *Journal of Food Distribution Research*, 29(3). 7-15.
- Govindasamy, R., Italia, J., and Thatch, D. (1999). Consumer attitudes and response toward state-sponsored agricultural promotion: An evaluation of the Jersey Fresh program. *Journal of Extension*, 37(3).
- Govindasamy, Ramu, K. Sullivan, V. Puduri, B. Schilling and Logan Brown. (2005). Consumer Awareness of the Jersey Fresh Promotional Program. *New Jersey Agricultural Experiment Station, P-02145-1-05*. July 2005
- Holloran, J. and Martin, M. (1989). Should states be in the agricultural promotion business? *Journal of Agribusiness*, 5. 65-75.
- Jensen, K. and Pompelli, G. (1998). A study of evaluation methods used by state/province departments of agriculture for measuring effectiveness of marketing/promotion programs. *Tennessee Department of Market Development and Promotions Group (SP97-07)*.
- Krejcie, R. and Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30. 607-610.
- Oregon Wine and Wine Grape Industries powerful source of State economic activity, 2006. Oregon Wine Center. Retrieved from <http://wineindustryreport.finewinepress.com/2006/02/14/oregon-wine-and-wine-grape-industries-powerful-source-of-state-economic-activity/> on November 17, 2006.
- Research and Marketing, 2006. Indiana Wine Grape Council. Purdue University.

Retrieved from <http://www.indianawines.org/iwgc/> on November 17, 2006.

Texas Wine and Wine Grape Industry Fact Sheet, 2005. Texas Wine Marketing Research Institute, Texas Tech University. Retrieved from [http://www.hs.ttu.edu/texaswine/2005/2005\\_Fact\\_Sheet.pdf](http://www.hs.ttu.edu/texaswine/2005/2005_Fact_Sheet.pdf) on November 17, 2006.

Texas Wine and Wine Grape Industry Economic Impact Report of 2007. Texas Wine Marketing Research Institute, Texas Tech University. Retrieved on August 5, 2008 from [http://www.depts.ttu.edu/hs/texaswine/docs/TX\\_Economic\\_Impact\\_2005.pdf](http://www.depts.ttu.edu/hs/texaswine/docs/TX_Economic_Impact_2005.pdf)