

# The Economic Impact of Wine and Grapes in Lodi 2009

Prepared for the Lodi District Grape Growers Association and the Lodi Winegrape Commission

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A STONEBRIDGE RESEARCH REPORT

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# HIGHLIGHTS

## FULL ECONOMIC IMPACT OF LODI WINE AND GRAPES IN LODI REGION \$5 BILLION

ECONOMIC IMPACT	
Number of Operating Wineries <sup>1</sup>	75
Number of Grape Growers	750
Vineyard Acreage	100,000 Vineyard Acres
Full-time Equivalent Jobs	14,900
Wages Paid	\$493 million
Cases of Lodi Appellation Wine Produced (9L equivalents)	39.7 million
Wine Related Tourism Expenditures	\$409.5 million
Number of Wine Related Visits	2 million
Taxes Paid	\$155 million CA and Local \$170 million Federal
Charitable Contributions <sup>2</sup>	\$35 million

<sup>1</sup>From the Alcohol and Tobacco Tax and Trade Bureau's list of Wine Producers and Blenders

<sup>2</sup>Our surveys indicate that winery charitable contributions average 1.7% of sales

# Executive Summary

The Lodi region has a growing reputation for quality wines. Though wine has been produced in the Lodi area since the 1850s, an influx of new wineries and improved viticultural practices have recently attracted more attention to the region.

As detailed in **Tables 1 and 2** below, Stonebridge Research Group LLC found that, in 2007, the full economic impact of the wine and vineyard sector and allied industries in the Lodi area is **\$5 billion**. Moreover, the wine and vineyard sector is one of the area's largest employers. The Lodi region's wine and vineyard sector directly, and indirectly through services and products they consume or generate, provide nearly **15,000** jobs in the region. These jobs generate total wages of over **\$493 million**. Moreover, the wine and vineyard sector and its related activities generate more than **\$325 million** in taxes, conservatively estimated. This includes \$155 million in State and Local taxes, and \$170 million in Federal taxes. Local taxes are paid in both Sacramento and San Joaquin Counties.

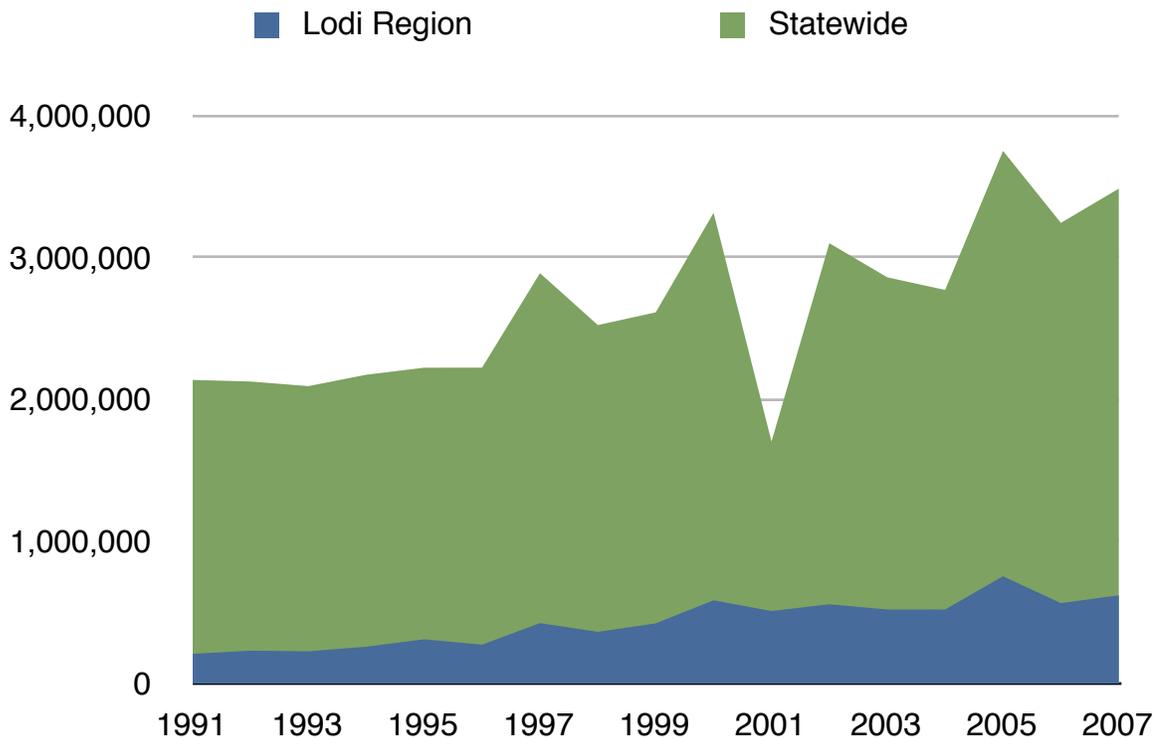
There are currently 75 wineries in the Lodi area, employing over 1,300 workers. This is up from about 900 employed in 2001. In 1991, there were only eight wineries in the region, five of which were high volume production facilities. In addition to the area's large wineries, more smaller production boutique wineries and mid-sized wineries have recently appeared in the area. Total winery revenue from sales of wine produced in the Lodi region exceeds \$2 billion. In addition, several well known brands purchase grapes from the Lodi area to process elsewhere.

The Lodi Appellation, which was approved by the federal government in 1986, now includes seven sub-appellations. Approved in August 2006, these sub-appellations include the Alta Mesa AVA, Borden Ranch AVA, Clements Hills AVA, Cosumnes River AVA, Jahant AVA, Mokelumne River AVA, and Sloughouse AVA. Each sub-appellation has a unique soil and climate, creating distinct aromas and flavors.

The Lodi district leads all other California districts in the production of several varieties, including Cabernet Sauvignon, Merlot, Chardonnay, Sauvignon Blanc, and Zinfandel. However, Lodi's Zinfandel reigns supreme. The soil and climate in the Lodi district are perfect for the production of Zinfandel grapes, and the varietal has long been produced in the area. Several Zinfandel wines are produced from single vineyards, with old vines dating back over a hundred years.

There are currently 100,000 vineyard acres in the Lodi region, farmed by 750 grape growers, employing over 3,800 vineyard workers, with 80% of the acreage located in San Joaquin County, and 20% in Sacramento County. The grapes grown in the Lodi region account for 86% of total winegrape production in San Joaquin County and 78% of total winegrape production in Sacramento County. Winegrape production in the area makes up more than 18% of statewide production. Since the early 1990s, winegrape production has remained steady while statewide production has been highly variable, as shown in Figure 1 below, and the Lodi region has consistently seen an increase in tons of grapes crushed.

**Figure 1: Tons of Grapes Crushed in Lodi Region and Statewide, 1991-2007**

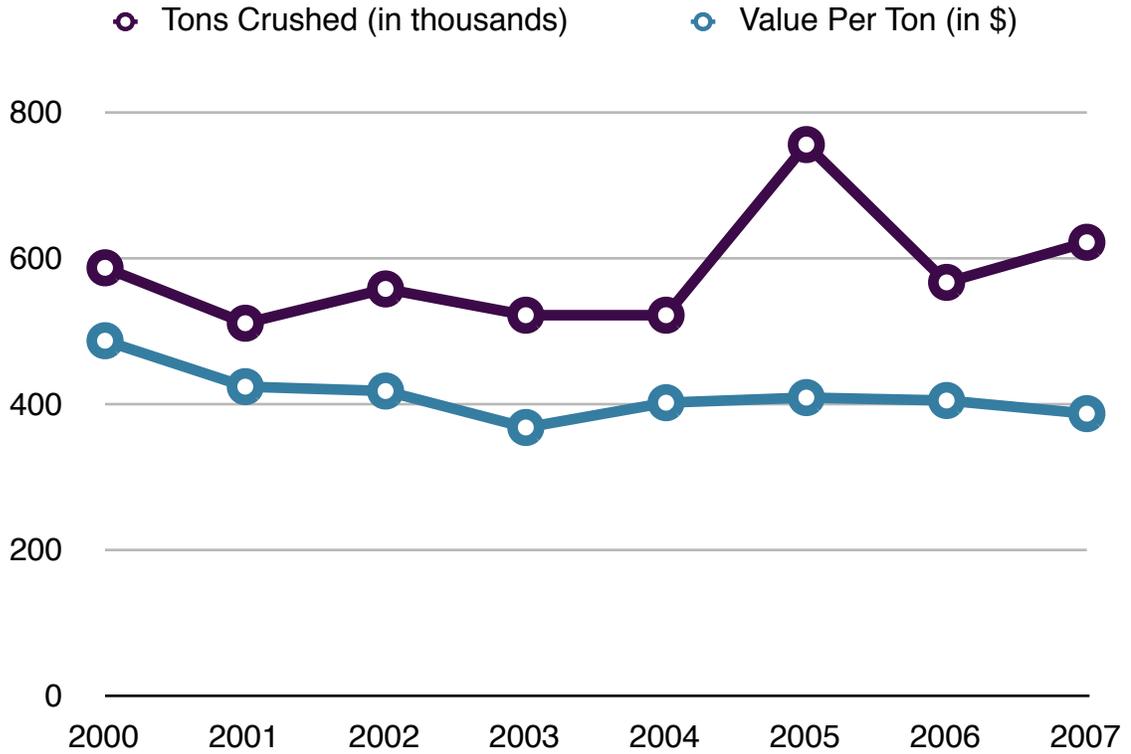


Source: National Agricultural Statistics Service Crush Reports, 1991-2007

Winery tourism makes up over 80% of all tourism to the Lodi area, for a total of 2 million wine related visits each year. Tourism impacts several different industries, from wineries to hotels and restaurants, and is a vital facet of the local economy. Winery tourism contributes nearly 700 jobs to the region, for a total of over \$17.7 million in wages paid and almost \$410 million in wine related tourism expenditures. Additionally, wine tourism related spending has steadily increased over the past fifteen years, suggesting that the branding of the Lodi region has helped to increase consumer awareness of the high quality wines produced in the area. Since 1992, wine related tourism expenditures have increased 88% from around \$218 million.

As indicated in Table 2, Lodi winegrape prices have remained stable since at least 2000, with total crop value increasing with production.

Figure 2: Tons Crushed and Value Per Ton, 2000-2007



Source: National Agricultural Statistics Service Crush Reports, 2000-2007 and San Joaquin and Sacramento County Agricultural Commissioner's Reports. 2001-2007

However, Lodi's strong reputation for quality combined with value positions the region extremely well in the current economic climate.

**Table 1:**  
**2006 Total Economic Impact (Sum of Total Spending) of Lodi Wine and Grapes**

LODI		
<b>Revenue</b>		
Winery Sales	\$#	1,654,414,834
Winery Direct Sales	\$#	403,754,613
Distributors Sales	\$#	8,275,570
Retail and Restaurant Wine Sales	\$#	28,300,121
Wine Grapes Sales	\$#	233,114,673
Tourism	\$#	409,497,600
Tax Revenues – State & Local	\$#	155,009,077
Tax Revenues – Federal	\$#	169,792,284
Financing Revenues – Debt	\$#	145,244,050
Vineyard Development/Management – Overhead	\$#	200,600,000
Vineyard Development – Materials (excluding vines)	\$#	94,600,000
Wine Labels	\$#	912,838
Grapevines	\$#	544,671
Trucking	\$#	11,580,735
Charitable Contributions	\$#	34,988,872
Winery Construction and Engineering	\$#	19,498,618
Wine Labs	\$#	676,969
Grapevine Assessments	\$#	1,800,000
Professional Services	\$#	26,336,513
Indirect (IMPLAN)	\$#	466,359,908
Induced (IMPLAN)	\$#	441,978,647
<b>Total Revenue</b>	<b>\$#</b>	<b>4,507,280,593</b>
<b>Wages</b>		
Winery Employees	\$#	42,052,760
Vineyard Employees	\$#	77,975,720
Tourism	\$#	17,759,114
Vineyard Development	\$#	35,295,000
Vineyard Materials	\$#	420,000
Labels	\$#	275,000
Grapevines/Nurseries	\$#	312,000
Retail/Liquor/Grocery Stores – Wine Specific	\$#	3,118,800
Restaurant Wages – Wine Specific	\$#	3,367,520

		LODI
Trucking	\$#	4,003,788
Winery Construction and Engineering	\$#	3,899,724
Wine Labs	\$#	120,000
Professional Services	\$#	2,371,374
Indirect (IMPLAN)	\$#	158,254,807
Induced (IMPLAN)	\$#	144,169,381
<b>Total Wages</b>	<b>\$#</b>	<b>493,394,988</b>
<b>Total \$</b>		<b>5,000,675,581</b>

Source: Stonebridge Research Group LLC and IMPLAN

**Table 2:**  
**2006 Total Employment: Lodi Wine, Grapes and Allied Industries**

EMPLOYMENT	LODI
Winery	1,359
Vineyard	3,844
Tourism	698
Vineyard Development	1,875
Vineyard Materials	14
Distributor	1
Labels	5
Grapevine Nurseries	10
Retail/Liquor/Grocery	105
Restaurants	230
Trucking	175
Winery Construction/Engineering	130
Wine Labs	2
Professional Services	95
Indirect (IMPLAN)	3,186
Induced (IMPLAN)	3,259
<b>Total</b>	<b>14,988</b>

Source: Stonebridge Research Group LLC and IMPLAN

# Methodology

To produce this assessment, Stonebridge Research Group LLC focused on the largest and most significant section of the industry involved in wine production and consumption, grape cultivation and allied industries – distribution, tourism, and equipment and suppliers. Other economic benefits, including tax revenues, financing, charitable contributions and other indirect and induced benefits generated by the wine industry are also summarized.

## **Direct, Indirect and Induced Effects (IMPLAN)**

Much like dropping a rock into a pond, the wine industry has ripple effects on Lodi's economy. Economic impact studies estimate the impact of an industry in a defined geographical area by identifying and measuring specific concrete economic "events." The events tracked in this report are jobs by industry code.

IMPLAN is the acronym for "IMpact analysis for PLANing." IMPLAN is a well established and widely used economic model that uses input-output analyses and tables for over 500 industries to estimate regional and industry-specific economic impacts of a specific industry.

Thus, the full economic impact of California wine, as shown in **Table 1**, combines the Crush District 11's wine industry's direct, indirect and induced economic effects as measure by the application of the IMPLAN model to the employment data presented in **Table 2** this report.

The IMPLAN model and its structure are updated annually to reflect changes in the US economy, in wages, in productivity assumptions and in regional economic structures. Thus, readers should not try to directly compare the IMPLAN results from the first report with the results of this update.

The IMPLAN model and methodology classifies these effects into three categories, as defined below: Direct Effects, Indirect Effects, and Induced Effects.

### ***Direct Effects***

Direct effects are economic changes in industries **directly** associated with the product's final demand. This, direct effects in this case consider the direct employment and spending of wineries, vineyards, distributors, and immediately allied industries, data on which Stonebridge Research Group LLC collected through primary research.

### ***Indirect Effects***

Indirect effects are economic changes – income created through job creation – in industries that supply goods and services to the directly affect industries noted above. Examples of industry effects are purchases of electricity and gasoline by wineries, of janitorial services by wine bottle manufacturers, and cash registers purchased for use in a tasting room. These may also be defined as “secondary economic exchanges.”

### ***Induced Effects***

Induced effects are the effects of these new workers spending their new incomes, creating a still further flow of income in their communities and a flow of new jobs and services.

Examples are spending in grocery and retail stores, medical offices, insurance companies, internet providers, and other non-wine related industries by workers in industries allied to the wine industry – such as the spending by the janitor working under contract to the wine bottle manufacturer in California. These tertiary exchanges induce more jobs and incomes throughout California, based on the original economic flows from the wine industry.

### ***Measuring the Full Economic Impact of the Lodi Wine Industry***

Lodi’s wine industry has a “multiplier” effect, extending across the county, state, and nation in a broad network of economic benefits. The revenue derived by the wine industry becomes income for other workers and firms, who spend more money on other goods and services.