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STRATEGIC SOLUTIONS FOR THE WINE INDUSTRY

The Economic Impact of Craft Beer on the New York Economy, 2013

Prepared for the New York Wine and Grape Foundation and New York State Brewers Association

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A STONEBRIDGE RESEARCH REPORT

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SELECTED HIGHLIGHTS

FULL ECONOMIC IMPACT OF NEW YORK'S CRAFT BREWERIES ON THE NEW YORK ECONOMY

\$3.5 BILLION TOTAL

	TOTAL IMPACT
Number of Operating Breweries*	207
Full-time Equivalent Jobs***	11,366
Wages Paid***	\$554 million
Total Production (barrels), 2013**	859,535
Brewery Revenue****	\$277 million
Retail Value of NY Craft Beer Sold in New York****	\$300 million
Total US Retail Value of NY Craft Beer****	\$504 million
Craft Beer Related Tourism Expenditures†	\$450 million
Number of Brewery Related Visits†	3.66 million
NY State & Local Taxes***	\$748 million
Federal Taxes***	\$204 million
Charitable Contributions****	\$3 million

*Source: New York State Liquor Authority and NYS Brewers Association

**Source: Brewers Association (national)

***Source: Stonebridge Research Group LLC, NYS Department of Taxation and IMPLAN

***Source: Stonebridge Research Group LLC, NYS Department of Taxation, Industry Interviews and IMPLAN

****Source: Stonebridge Research Group LLC and industry sources

†Stonebridge Research Group LLC, industry Sources and Empire State Economic Development Corp.

FULL ANALYSIS

TABLE 1: 2013 Total Economic Impact (Sum of Total Spending) of New York Craft Beer and Related Industries

		TOTAL IMPACT
Revenue		
Brewery Sales	\$	277,200,038
Retail and Restaurant Margins on Beer Sales	\$	65,415,042
Distributors Revenue	\$	26,240,991
Agricultural Suppliers	\$	3,118,131
Tourism	\$	450,106,800
Tax Revenues - State & Local	\$	748,073,360
Tax Revenue - Federal	\$	210,050,282
Suppliers	\$	177,882,535
Service Providers	\$	43,492,341
Charitable Contributions	\$	3,000,000
Indirect (IMPLAN)	\$	530,945,070
Induced (IMPLAN)	\$	381,794,212
Total Revenue	\$	2,917,318,801
Wages		
Brewery Employees	\$	58,183,643
Agricultural Employees	\$	857,134
Tourism	\$	77,193,316
Distribution	\$	16,493,854
Restaurant and Retail	\$	11,879,118
Total Supplier Wages	\$	34,633,408
Total Service Provider Wages	\$	10,768,503
Indirect (IMPLAN)	\$	192,734,005
Induced (IMPLAN)	\$	151,654,622
Total Wages	\$	554,397,603
Total Impact	\$	3,471,716,404

Source: Stonebridge Research Group LLC and IMPLAN

TABLE 2:
2013 Total Employment: New York Craft Breweries and Allied Industries

EMPLOYMENT	TOTAL IMPACT
Brewery	1,031
New York Based Agricultural Inputs	19
Tourism	3,011
Distributor	282
Restaurant & Retail	767
Suppliers	608
Service Providers	137
On- and Off-Premise	697
Indirect (IMPLAN)	2,303
Induced (IMPLAN)	2,511
Total	11,366

Source: Stonebridge Research Group LLC and IMPLAN

Executive Summary

As detailed in **Table 1** above, Stonebridge Research Group LLC found that, in 2013, the full economic impact of the craft beer produced and sold in New York, and allied industries in New York State, totaled nearly **\$3.5 billion**.

New York's craft brewing industry has surged since the 2012 passage of New York Farm Brewery legislation and the continued strong support of the Governor and the legislature. The number of craft brewers has more than doubled from 95 in 2012 to 207 in January 2015, with production growing by 54% from 557,436 in 2011 to 859,535 barrels in 2013.

New York's craft breweries also contribute to New York State's exports. In 2012, almost 9% of the production of this young industry was exported.

Employment

New York's craft beer industry, directly and indirectly through services and products they consume or generate, provided more than **11,000 jobs** in the state in 2013, as shown in **Table 2** above. These jobs generated total wages in New York State in 2013 in excess of **\$554 million**.

State and Local Taxes

New York's craft brewers and their related activities generated more than **\$748 million** in State and Local taxes and **\$210 million** in Federal taxes in 2013, conservatively estimated.

Table 5: Estimated Impact of New York Craft Brewers on Government Revenues in 2013

	Generated by New York Craft Beer related activities
STATE AND LOCAL TAXES	
SALES TAX ON CONSUMER DIRECT SALES	\$5,028,280
EXCISE TAX ON NY FARM BREWERS**	\$799,180
TAX ON PRODUCTION*	\$697,532,038
EMPLOYEE COMPENSATION*	\$1,320,955
HOUSEHOLD TAX*	\$34,083,423
CORPORATE TAX*	\$9,309,332
TOTAL	\$748,073,208
FEDERAL TAX	

	Generated by New York Craft Beer related activities
EXCISE TAX***	\$6,016,745
PROPRIETOR INCOME	\$5,069,249
COMPENSATION RELATED*	\$56,090,791
INDIRECT BUSINESS TAX*	\$62,338,820
HOUSEHOLD (INCOME) TAX*	\$58,983,814
CORPORATE TAX*	\$21,550,863
TOTAL	\$210,050,282
TOTAL TAXES PAID	\$958,123,490

Source: Stonebridge Research, New York State Brewers Association, *IMPLAN **NY State Department of Taxation***Federal excise tax rates applied to New York craft brewers production

Tourism

Consumers have shown their enthusiasm for the industry with their remarkable number of visitors. New York's craft brewers welcomed an estimated 3.66 million visits in 2013. These visits spent more than **\$450 million**, exclusive of beer sales, generating more than **3,000 jobs** in 2013. Based on state tourism research, visitors contribute to a wide range of activities, including eating and drinking places, retail, recreation, transport and accommodation. Some brewers have brewpubs and nearly all the others have tasting rooms, which have clearly become enormously popular and important sales venues. We estimate that about 129 thousand barrels are sold direct to consumers, about 15% of total production, for a total value of \$116 million.

New York Trade Sales

Based on New York State data, about 54% of New York craft beer is sold within the state, representing about 441 thousand barrels.

Sales other than consumer direct (and exports, which obviously are not included in in-state sales) are made through licensed distributors/wholesalers to retailers and eating and drinking places. Craft beer has proven very popular with the trade, with several New York brewers attracting strong support. Producers estimate that these sales are split about 50/50 between retail (off-premise) and on-premise (restaurant, bar, etc) channels.

The total retail value of such New York trade sales, including wholesaler, retailer and restaurant/bar markups, is estimated at \$184 million.

Out of state trade sales have an estimated total retail value of \$223 million.

Prospects

New York's craft beer industry has enormous energy. The support of the Governor and legislature have generated an impressive wave of entrepreneurship and innovation, to which the public has responded enthusiastically. Prospects are strong for continued expansion.

Scarcity of New York produced hops and barley malt remain constraints on the expansion of farm brewers, which are obligated to source these materials within the state within a few years. Although only 130 acres of hops were planted in the state as of 2014, with just two palletizing companies, hops production has grown tenfold in the last five years. Development of these products requires substantial investment not only agriculture, for this multi-year specialized crop, but in storage, drying, cooling and processing.

Barley planting is growing rapidly, only about 2,000 acres are planted in New York today, with only 7 malting facilities, which serve both craft beer and craft spirits industries. No barley was planted in the state before the emergence of the craft beer industry.

Brewers source most of these supplies from other states (and for some hops, internationally as well) presently. The State and the industry are well aware of these issues, with active research underway, with extension support, to encourage expansion. Continued research and training are needed for both this agricultural development and for brewery development.

Most new investment in craft breweries appears to have been self-financed, often with help from the Small Business Administration, but commercial banks have provided support for some of the larger craft brewers.

The growth of craft beer has generated employment in a variety of related industries, from metal fabrication and construction, to tourism, printing and freight, but most of the specialized equipment needed for beer making must still be imported. The revival of the US beer industry should attract more of such operations to the US and potentially New York.

There are no geographical constraints on the location of craft breweries, with brewers now in 49 of New York's 62 counties. Operations are emerging across the State, creating jobs and generating taxes.

Methodology

The best way to understand an economic impact analysis is to see it as the answer to the question: what would we lose if this industry disappeared tomorrow? Intuitively, we all know that the answer to that question is far more than the industry's direct sales. We know that answer needs to include the jobs and the tax revenues lost, the business for the restaurant where the workers ate lunch and the car dealers who sold them cars, the office supply stores where the

companies bought printers and papers, and the sales and business and other taxes paid by all those businesses. An economic impact study is essentially a way to put numbers to those losses.

To produce this assessment, Stonebridge Research Group LLC explored and developed metrics for the multiple components of this very complex industry: from hops and barley malt production to craft beer processing and craft brewery design and construction to the many allied industries involved in craft beer production and sale and allied industries - distribution, tourism, equipment, trucking and other suppliers. Other economic benefits, including tax revenues, financing, charitable contributions and other indirect and induced benefits generated by the craft beer industry are also summarized.

This report is based primarily on 2013 data, although 2012 and 2014 data were included for some data items where 2013 data was unavailable.

A Note on the Data

Each time we do these studies we need to stress that there is hardly any public or standardized data on this complex industry. The New York Brewers Association and the Empire State Economic Development Corporation provided invaluable assistance in finding and/or developing many of the metrics needed for the study. Much of the information in the study came from extensive interviews with New York's craft brewers, who were generous with their time and expertise.

Production data came from the the national Brewers Association. Revenue data is not available from any published source. The New York State Liquor Authority and New York State Department of Taxation were very helpful, as was the Tax and Trade Bureau of the US Department of the Treasury. The number of permitted breweries can be obtained from Federal (TTB) and state sources-- but these numbers seldom agree, due to timing differences in permit approvals and cancellations and different license categories at state and federal level. In this case, state numbers were used.

Employment and wage data by county is available for certain industry categories from the US Department of Labor Bureau of Labor Statistics. Fortunately, breweries are specific categories for such data. However, this data only includes full-time employees eligible for unemployment insurance — thus, part-time, seasonal and owner-operators need to be added to BLS data. Data for specialized suppliers to the beer industry, such as barrels, bottles, cans, tanks, trellising for hop farms, waste handling, and processing equipment manufacturers and distributors, is buried in much broader categories, such as “wood processing” or “glass containers.” Given these constraints, these findings are best available estimates.

Thus, these studies depend on diligent primary research: multiple industry interviews combined with searches of multiple sources for pieces of information that can be assembled to substantiate an estimate. To provide a metric for the effort, we tracked employment, revenues, and wages for approximately 62 industry activities for this study.

This economic impact analysis is driven by jobs. The number of jobs directly created by the craft beer industry and related activities, as noted in Table 2, are entered into the IMPLAN model. The IMPLAN model then calculates the indirect and induced effects of these jobs in terms of taxes, revenues, wages and employment created.

Direct, Indirect and Induced Effects (IMPLAN)

Much like dropping a rock into a pond, the craft beer industry has ripple effects on the New York 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 “**IM** impact analysis for **PLAN**ing.” **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 craft beer produced in New York State, as shown in **Table 1**, reflects the New York craft beer industry’s direct, indirect, and induced economic effects as measured by the application of the IMPLAN model to the employment data presented in **Table 2** of this report.

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. Thus, direct effects in this case consider the direct employment and spending of brewers, hops and barley growers, 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 affected industries noted above. Examples of industry effects are purchases of electricity by brewers or of janitorial services by beer bottle manufacturers. 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-beer related industries by workers in industries allied to the beer industry - such as the spending by the janitor working under contract to the beer industry supplier. These tertiary exchanges induce more jobs and incomes throughout the state and the nation, based on the original economic flows from New York’s craft beer industry.

Taxes

The IMPLAN model estimates all non-industry-specific taxes generated at federal, state, and local levels by the jobs produced by the industry in the respective geographical area. Stonebridge added to these estimates industry specific taxes including federal and state alcohol excise taxes, consumer direct sales taxes, and assessments paid by the industry, because these amounts are not included in the IMPLAN results.

Measuring the Full Economic Impact of New York's Craft Beer Industry

New York's craft beer industry has a "multiplier" effect, extending across a broad network of economic benefits. The revenue derived by the industry becomes income for other workers and firms, in the state who spend more money on other goods and services.

About Stonebridge Research Group, LLC

Stonebridge Research Group LLC is a leading source of data and advisory services for wine and other craft beverage industries. We are known for the quality of our insights, the precision and thoroughness of our analysis, and a reliance on facts rather than conventional wisdom.

Stonebridge Research's services include market, trade and consumer research, market development strategies, investment due diligence, litigation research, economic impact studies, and business and strategic planning for all segments of the wine industry. Stonebridge's work has been a cited reference in U.S. Federal Trade Commission and federal court findings. Stonebridge's Fine Wine Trade Monitor is considered a definitive assessment of the evolving situation of the U.S. three-tier system for wine.

Having conducted market entry development strategy research for a variety of producing regions, including Chile, France, Argentina and Spain (and having a founder with deep emerging market investment experience), Stonebridge Research, together with Family Winemakers of California, recently received a grant from the Foreign Agricultural Service of the U.S. Department of Agriculture to build and execute a strategy to develop the market in China for California's fine wines.

Stonebridge Research was founded in 2008 by Barbara Insel and a group of food and beverage investors interested in bringing a new level of analytical rigor to the wine industry. Since its founding Stonebridge Research has conducted major studies for such clients as the French Trade Ministry, the Wine Institute, the California Association of Wine grape Growers, Napa Valley Vintners Association, the Office of Champagne, Wines from Spain, Family Winemakers of California, the Washington State Wine Commission, the Food Marketing Institute and numerous individual producers, industry investors and suppliers.

Barbara Insel is President and CEO of Stonebridge Research Group LLC. Prior to joining Stonebridge Research, Ms. Insel was the Managing Director of MKF Research LLC for nearly five years, leading all of that firm's research and advisory work, including the first study of "The Impact of Wine, Grapes and Grape Products on the American Economy", completed in 2007 and economic impact studies of the wine and grape industry in 12 states, including New York, California, Washington State, Texas and North Carolina, and several counties.

Ms. Insel has been a featured speaker at the Unified Wine and Grape Symposium, the Free the Grapes Symposium, Viticulture 2007, the inaugural Wine Tourism Symposium and meetings of Napa Valley Vintners, the Wine Institute, California Association of Winegrape Growers, the National Association for Business Economics, Family Winemakers of California and numerous regional, national and international organizations. She has been published in many industry publications

including Wine Business Monthly, Business Economics and Foreign Affairs and is the author of the forthcoming book "*At Profile of the Wine Industry: Global, Local, Earth and Glitz*", to be published in 2015 by the Business Expert Press.

She is also frequently quoted in the regional and national press on the topic of the business of wine. Having taught for several years at the University of California, Davis Wine Marketing Course, Barbara is now a regular contributor to the Wine Business course at the Culinary Institute of America.

Ms. Insel has over two decades of experience in international investment, finance and related research, holding senior positions at Salomon Brothers, the European Bank for Reconstruction and Development, Morgan Stanley Asset Management, Kleinwort Benson, and the World Bank, working in New York, Washington DC, London, Prague, Moscow and Latin America. Ms. Insel was also an International Affairs Fellow at the Council on Foreign Relations.

Ms. Insel education includes a BA from Barnard College, and MA in Economics from Brown University and an MBA from Stanford's Graduate School of Business.