ECONOMIC IMPACT OF CRAFT BREWERIES IN SAN DIEGO COUNTY
EXECUTIVE SUMMARY

The Craft Beer industry continues to thrive in San Diego County. Craft beer continues to grow at the expense of big beer.

San Diego still ranks as the highest county in the nation with 150 craft breweries as of August 31, 2017.

Big beer has also opened what appear to be craft breweries. The craft beer industry responded with the Independent Craft Brewers Seal, which indicates a true craft brewery.

The economic impact of craft beer in 2016 produced about $870,000,000 output. This number represents about twice the output of the San Diego Zoo, as a comparison.

Craft beer contributed over $100,000,000 in taxes in 2016.

Projected philanthropy for craft beer in 2016 totaled $4,500,000.
ABOUT THIS REPORT

This report was produced by the College of Business Administration (CoBA) at California State University San Marcos (CSUSM), in conjunction with the San Diego Brewers Guild (SDBG), and the San Diego North Economic Development Council (SDNEDC). Special thanks to Bart Watson, Chief Economist for the Brewers Association, for his review and support of our methodology.

Data

The data were collected from numerous sources over the summer of 2017. The effective dates vary from the respective data sources. Every effort has been made to clarify the applicable dates of the data when comparisons are made.

IMPLAN®

For the purposes of this report and its underlying economic multipliers, we used the IMPLAN® System. IMPLAN® is a general input-output model that is comprised of software and regional data sets. Models for specific regional economies can be created, and the data sources behind them are continually improved and updated. Rather than extrapolating regional data from national averages, IMPLAN® measures economic impacts from data on actual local economies.

Photographs

For this inaugural issue, we wanted to pay tribute to a few of the pioneers of craft beer in San Diego who have paved the path for the many who followed. In this issue, all photographs were taken at Karl Strauss Brewing Co., Port Brewing/The Lost Abbey, and Stone Brewing.
San Diego is the top county in the country for Craft Breweries, having the largest number of breweries. This report describes the economic impact of Craft Breweries on San Diego County. California State University San Marcos, in conjunction with the San Diego Brewers Guild and the San Diego North Economic Development Council, analyzed the impact of the industry on the region.

PHOTO: Cory David, bartender at Karl Strauss Brewing Co.
INDUSTRY OVERVIEW
Breweries that produce no more than 6,000,000 barrels or 189,000,000 gallons (1 barrel = 31 U.S. gallons) of beer per year are candidates to be Craft Breweries. Further, the brewery must be independent to be considered craft. An independent craft brewer may not be owned more than 25% by a non-craft brewer. Lastly, the majority of the alcohol in a craft beer must be derived from traditional ingredients (e.g., malted barley) and thus, flavored malt beverages do not count as craft beer. Breweries that produce more than 6,000,000 barrels per year are considered “big beer” by the craft beer industry. Thus, big beer may not own more than 25% of an independent craft brewery in order for the latter to be considered a true craft brewery. In San Diego County, there are 150 craft breweries as of August 31, 2017. This count represents a 50% growth over the same period in 2016. San Diego County has the largest number of craft breweries.

THE CRAFT BEER INDUSTRY
Big beer has taken notice of the growth and impact of craft beer. Overall beer consumption has been declining in recent years; yet, craft beer production has increased. Consequently, craft beer grows at the expense of big beer. In the past couple of years, big beer has opened brewpubs that strategically market themselves as craft breweries but do not meet the criteria described above. To combat this confusion among consumers, the Brewers Association (the national association for craft brewers) established the Independent Craft Brewers Seal. In order to qualify for the seal, a craft brewer must have a valid TTB Brewers Notice (described later), meet the above definition of craft brewer, and sign a licensing agreement. Consumers seeking craft beer should look for this seal. According to the Brewers Association, the majority of Americans live within ten miles of a craft brewer.

According to IBISWorld, the craft brewery industry is still in a growth stage; although regulation is heavy, competition is still high.

In the U.S., Stone Brewing’s brewery tour hosted over 55,000 visitors in 2016, which makes it one of the larger attractions in North County (along with LEGOLAND® and The San Diego Zoo Safari Park).

IBISWorld also indicates for craft beer, low globalization overall, but that may be changing. For example, in June of 2016, Stone Brewing opened its brewpub in Berlin, Germany. Nationally within the U.S., there were 5,301 craft brewers at the end of 2016.
IPAs (India Pale Ales) make up the largest craft beer segment; although brewed elsewhere, IPAs are considered characteristic of the West Coast beer style, with San Diego being the epicenter of IPAs, which exhibit characteristics of strong hops flavor (i.e., “hoppy”).

The volume share of beer at the end of 2016 was 12.3%, representing growth over 2015 of about .1%. In 2012, craft beer made up about 6.52% of total beer in the United States. In 2014, the Brewers Association Board declared a goal to reach 20% of total beer sales by 2020.
In 2016, there were 24.5 million barrels of craft beer produced in the U.S.\(^6\), which is almost flat over 2015, with .0088% growth. It is important to note that acquisitions of craft brewers in recent years by big beer have skewed some of these numbers.

The industry earned $2.2B profits in 2016 on $23.5B in total revenue\(^7\). On average, the profit rate for craft beer is 9.4% of revenue in 2016, down from its peak of 10.9% in 2011\(^8\).
SIZE AND GROWTH
The U.S. Department of Treasury’s Alcohol and Tobacco Tax and Trade Bureau (TTB) grants states the authority to oversee alcohol and beverage control. The State of California Department of Alcoholic Beverage Control (ABC) regulates manufacturers and purveyors of alcohol via licensing within California. The 3 types of ABC licenses in this report are:

   Type 1: Beer Manufacturer (large brewer)
   Type 23: Small Beer Manufacturer (<60,000 bbl)
   Type 75: On Sale General - Brewpub (>100-5,000 bbl)

TTB license growth dramatically increased starting in 2011. In 2016, there were a total of 927 California TTB licenses, which was a 17.6% growth rate from 2015. The number of TTB licenses more than doubled between 2011 and 2016.

These licenses also regulate the amount of taxes to be collected from each sale. Effectively, 43.9% of the purchase price of an alcoholic beverage goes to some form of tax. See breakdown at the right.
CALIFORNIA

There were 623 craft breweries in the state of California at the end of 2016, which ranks it first in the U.S. In 2016, craft brewers produced 3,295,221 barrels of beer in California, which ranks it second among states for beer production. This production number is down from 2015. However, production numbers from craft breweries acquired by big beer were removed from the totals, since those brewers were no longer craft brewers. Had their production been included, the growth would have continued\(^\text{11}\), shown with the blue line below.

Asheville, NC and Portland, OR are also considered craft brewer hubs. As a comparison, North Carolina produced 1,269,402 barrels in 2016, and Oregon produced 1,149,150. In the U.S., they rank fifth and eighth, respectively. California has the largest population in the U.S., with a 2016 total of 39,250,017. Of that number, 71.2%, or 27,955,090 are of drinking age. Divide the total number of people aged 21+ by the number of TTB licenses in California, and there is one TTB-licensed establishment for every 30,156 people in the state. Divide the number of craft beer barrels produced by that same drinking-age population for the same period, and it results in 3.65 gallons of craft beer produced per capita in California compared to the national average of 3.2 gallons.

Source: CSUSM
SAN DIEGO COUNTY

As of August 31, 2017, there were 150 San Diego Brewers Guild members. This number includes multiple locations of the same owner, (e.g., Karl Strauss Brewing Co. has 6 locations). The state licenses 205 craft breweries; thus, it is assumed the difference represents brewer locations that are not Guild members.
CRAFT BREWER CONFIDENCE INDEX

California State University San Marcos, in partnership with the San Diego Business Journal, conducted surveys on business confidence in the Craft Beer industry over the period from fall 2015 through spring 2017. The researchers used a diffusion index, which according to the Bureau of Labor Statistics, is a measure of the dispersion of change. That is, if there were no change in the period, then the rating would be 50 on the 100-point scale. Anything above 50 indicates that the values being measured increased; and, an index rating below 50 indicates that the measured values decreased.

Since the surveys began in 2015, the general craft beer industry confidence in San Diego County has been high. The forward-looking twelve-month view to the left indicates strong confidence. Hiring and investment is anticipated to be up, and confidence in increased production and distribution is significant.

SOURCE: San Diego Business Journal and California State University San Marcos

For more information see: csusm.edu/coba/dashboard/sdbj/beer.html
In the Craft Brewer Business Confidence Index, respondents were asked to indicate forward-looking confidence over the ensuing 12-month period regarding employment, investment, distribution and production. None of the respondents anticipated a decrease in these four categories, or in general growth. The stay-the-same selection for all four areas was in single digits, while responses for growth were overwhelming. Anecdotally, various articles have challenged whether craft beer has reached its peak. Clearly, craft beer in San Diego County remains vibrant.

### Employment
- Increase: 95%
- Stay the Same: 5%
- Decrease: 0%

### Distribution
- Increase: 91%
- Stay the Same: 9%
- Decrease: 0%

### Production
- Increase: 93%
- Stay the Same: 7%
- Decrease: 0%

### Investment
- Increase: 77%
- Stay the Same: 23%
- Decrease: 0%

Source: CSUSM
ECONOMIC IMPACT
Craft Brewers continue to grow and make an impact on the region. A few breweries (9 in 2 years) closed during the period. However, the handful of closures appears to be from business-related issues, rather than regional economic factors (e.g., undercapitalization).
This report analyzes congressional districts 49 through 53, which encompass San Diego County, in IMPLAN® to determine economic impact on the county. Total economic impact is comprised of direct, indirect, and induced economic effects.
For the purpose of this report, we combine indirect and induced impacts from the IMPLAN® model into “multiplier effects.”

Direct impacts result from expenditures associated with constructing and operating a brewery.

Indirect impacts result from the suppliers of the breweries purchasing goods and services and hiring workers to meet demand – these secondary impacts would not occur but for the original brewery operations.

Induced impacts result from the employees of the breweries purchasing goods and services at household levels.
For the five congressional districts reviewed (i.e., San Diego County), the total craft beer economic impacts for 2016 are below. San Diego County craft brewers produced about 900,000 barrels in 2016.

### SAN DIEGO COUNTY

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment</th>
<th>Labor Income ($)</th>
<th>Value Added ($)</th>
<th>Output ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>4,326</td>
<td>97,444,429</td>
<td>352,565,136</td>
<td>641,227,660</td>
</tr>
<tr>
<td>Multiplier Effect</td>
<td>1,339</td>
<td>81,580,521</td>
<td>132,721,251</td>
<td>228,401,934</td>
</tr>
<tr>
<td>Total Effect</td>
<td>5,665</td>
<td>179,024,951</td>
<td>485,286,388</td>
<td>869,629,595</td>
</tr>
</tbody>
</table>

The revenue that craft brewers make per barrel varies depending upon whether the barrels were for distribution or on-premise sales. The ratio of retail sales versus distribution depends upon the size of the brewery. The average prices and distribution ratios used are as follows:

<table>
<thead>
<tr>
<th>Percentage of Distribution vs. On-Premises Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrels Produced</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Breweries</td>
</tr>
<tr>
<td>&gt;60,000</td>
</tr>
<tr>
<td>30,001-60,000</td>
</tr>
<tr>
<td>15,001-30,000</td>
</tr>
<tr>
<td>10,001-15,000</td>
</tr>
<tr>
<td>5,001-10,000</td>
</tr>
<tr>
<td>2,501-5,000</td>
</tr>
<tr>
<td>1,001-2,500</td>
</tr>
<tr>
<td>1-1,000</td>
</tr>
<tr>
<td>Brew Pubs</td>
</tr>
<tr>
<td>&gt;1000</td>
</tr>
<tr>
<td>1-1000</td>
</tr>
</tbody>
</table>
For this report, North San Diego County is the geographic region bounded in the south by the 52 freeway, and bounded in the north by the county border. Of the whole county impacts, the following were specific to North County:

### NORTH SAN DIEGO COUNTY

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment</th>
<th>Labor Income ($)</th>
<th>Value Added ($)</th>
<th>Output ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>3,426</td>
<td>52,470,069</td>
<td>189,842,744</td>
<td>333,482,034</td>
</tr>
<tr>
<td>Multiplier Effect</td>
<td>534</td>
<td>33,773,858</td>
<td>55,299,587</td>
<td>97,487,086</td>
</tr>
<tr>
<td>Total Effect</td>
<td>3,960</td>
<td>86,243,929</td>
<td>245,142,331</td>
<td>430,969,121</td>
</tr>
</tbody>
</table>

### INNOVATE 78

According to its website, Innovate78 is the collaborative outcome of five cities - Carlsbad, Escondido, Oceanside, San Marcos and Vista - coming together with a shared vision to boost economic prosperity along the 78 Corridor. Because of the number of craft breweries situated along the 78 freeway, it is also referred to as the “hops highway.” Further breaking down the craft beer impact from above to just those zip codes within the Innovate 78 region, the impact of craft beer within that region is as follows:

### INNOVATE 78

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment</th>
<th>Labor Income ($)</th>
<th>Value Added ($)</th>
<th>Output ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>2,468</td>
<td>37,245,448</td>
<td>134,758,304</td>
<td>241,071,121</td>
</tr>
<tr>
<td>Multiplier Effect</td>
<td>390</td>
<td>24,174,172</td>
<td>40,090,464</td>
<td>68,285,782</td>
</tr>
<tr>
<td>Total Effect</td>
<td>2,858</td>
<td>61,419,621</td>
<td>174,848,769</td>
<td>309,356,903</td>
</tr>
</tbody>
</table>
**COMPARISONS**

2016 craft beer revenue in San Diego County totaled $638,000,000. In comparison, the Comic-Con conference in San Diego generated about $140,000,000 in revenue in 2016\(^2\).

According to its financial statements, the San Diego Zoo generated $299,472,000 in 2016 revenue. Craft Beer produced over twice that amount.

**PHILANTHROPY**

Using an average charity multiplier of $4.67/bbl for the Craft Beer industry, giving for 2016 was projected to be $4,500,000. Tracking actuals of craft brewery philanthropy will be a focus for the 2018 report.

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**TAX**

Tax rates vary depending upon the production level of the breweries. 2016 Tax contributions by craft breweries in San Diego County are as follows:

<table>
<thead>
<tr>
<th>Brewery Locations</th>
<th>Barrels Produced</th>
<th>Taxes San Diego County (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>1 to 1,000</td>
<td>$9,640,648</td>
</tr>
<tr>
<td>15</td>
<td>1,001 to 5,000</td>
<td>$9,498,372</td>
</tr>
<tr>
<td>10</td>
<td>5,001 to 15,000</td>
<td>$9,214,297</td>
</tr>
<tr>
<td>13</td>
<td>15,001 to 60,000</td>
<td>$28,541,342</td>
</tr>
<tr>
<td>14</td>
<td>60,000+</td>
<td>$53,518,492</td>
</tr>
</tbody>
</table>

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PHOTO: Stone Brewing
ABOUT THE PUBLISHERS

CALIFORNIA STATE UNIVERSITY SAN MARCOS (CSUSM)
Building on an innovative 27-year history, California State University San Marcos is a forward-focused institution, dedicated to preparing future leaders, building great communities and solving critical issues. Located on a 304-acre hillside overlooking the city of San Marcos, the University is just a short distance from some of Southern California’s best beaches and an hour from the US-Mexico border. CSUSM enrollment is over 17,000 and the university is fully accredited by the Western Association of Schools and Colleges.

CSUSM enjoys a special relationship with Craft Beer. Stone Brewing is nearby and grew alongside the university. Numerous alumni have started breweries in the region. The university offers its EngiBeering™ program, which trains students to brew craft beer at scale, and to create and run a brewery. In addition, the university has a registered archive, called BrewChive™. The CSUSM Library has begun to collect and digitize historical documents and special pieces. While the collection will focus on the evolution of San Diego’s New Brew Wave, circa 1987-present, the archive will also feature signature collections, like the history of women in San Diego’s craft brew industry.

SAN DIEGO BREWERS GUILD
The San Diego Brewers Guild is proud to be a source for breweries, tradespeople, restaurants and craft beer aficionados. Founded in 1997, the Guild is a nonprofit organization that seeks to promote San Diego breweries and create an open line of communication between brewers—connecting a strong and vibrant community. As the American craft beer movement becomes further ingrained in the mainstream marketplace, our local brewing scene will continue to play an important role in the developing conversation as well as the history of craft beer as a whole.

SAN DIEGO NORTH ECONOMIC DEVELOPMENT COUNCIL
San Diego North Economic Development Council (SDNEDC) is a nonprofit coalition of the public and private sectors working together with community partners to sustain and strategically grow the economic base of North San Diego County.

It brings community leaders, elected officials, Chambers of Commerce, EDCs, and businesses together to work collaboratively on improving the quality of life for the greater San Diego region. The SDNEDC provides forums for community engagement by providing opportunities to discuss and be actively involved in current economic development issues, trends and strategies. By spearheading strategic initiatives, policies, and programs, it seeks to strengthen the regional economy and improve quality of life.