THE BIG BAY BOOM
A STUDY OF ITS ECONOMIC IMPACT
THE FERMANIAN BUSINESS & ECONOMIC INSTITUTE (FBEI)

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EXECUTIVE SUMMARY

- San Diego’s Big Bay Boom fireworks show, conducted each July 4th, generated $10.1 million in incremental sales in 2018 for the local area’s hotels, restaurants, retail shops, tour operators, museums, charter cruise firms, boat rental companies, and other businesses.

- Including the various ripple or multiplier effects produced through the supply chain and additional consumer spending, the fireworks event created a total of $17.8 million in sales in 2018.

- Due to extra staffing and additional pay, the Big Bay Boom generated $7.9 million in earnings for San Diegans working in the region’s various businesses during the July 4th event.

- Staged each year since 2001, the Big Bay Boom hosts a live audience of over 500,000 watching fireworks launched from four barges around Shelter Island, Harbor Island, and the North and South Embarcadero Marina Parks. Funds raised from the show are donated to the San Diego Armed Services YMCA, which serves families of the military in the San Diego region. The Big Bay Boom provided the charity with $82,000 in 2018 and has donated $967,000 to it since 2001.

- Local businesses reported sales increases due to the event ranging from 20% to over 30%. Approximately 65% of hotel guests on July 4th in 2018 came explicitly to see the Big Bay Boom. Most of them stayed for close to three days. About three-fourths of hotels guests during the July 4th holiday were from outside San Diego County.

- The Big Bay Boom generated approximately $587,000 in revenues for the Port of San Diego in 2018. After expenses for traffic control, park cleanup, and other services, as well as a $190,000 sponsorship for the Big Bay Boom, the Port realized a net dollar benefit of $257,000. This represented a return on investment (ROI) of 78%.

- The City of San Diego benefited from taxes of an estimated $1.0 million collected from sales and hotel tax revenues during the July 4th event in 2018.
The Big Bay Boom generated a large amount of media exposure for San Diego in 2018, benefiting its businesses and tourist industry. Live TV broadcasts in San Diego and Los Angeles, simultaneous radio coverage, articles in newspapers and magazines, streaming, and social media equaled an estimated $1.1 million in value. A combined 148,000 households watched the Big Bay Boom in San Diego and Los Angeles on TV in 2018, making it the most watched locally-produced July 4th special in the country.

Exhibit A

### Impact of the Big Bay Boom
2018 July 4th fireworks, millions of dollars

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount (in millions of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Sales</strong></td>
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</tr>
<tr>
<td>Direct Sales</td>
<td>$10.1</td>
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<tr>
<td>Multiplier Effects</td>
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<tr>
<td><strong>Gross Regional Product</strong></td>
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</tr>
<tr>
<td><strong>Incomes</strong></td>
<td>$7.9</td>
</tr>
<tr>
<td><strong>Media Impact</strong></td>
<td>$1.1</td>
</tr>
<tr>
<td><strong>Taxes</strong></td>
<td>$1.0</td>
</tr>
</tbody>
</table>

Source: FBEI
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BACKGROUND

San Diego has hosted the Big Bay Boom fireworks show each year on July 4th since 2001, which has grown to become one of the region’s greatest holiday events. Four barges launch pyrotechnics around Shelter Island, Harbor Island, and the North and South Embarcadero Marina Parks. Over 500,000 viewers attend the annual show.

Funds raised from the show are donated to the San Diego Armed Service YMCA, which serves families of the military in the San Diego region. This charity offers about forty different programs for the families of young enlisted men and women in addition to wounded warriors at the Balboa Naval Hospital.

Approximately 75 companies and agencies plus about 300 private individuals supply funding for the annual show. Another group of trustees and foundations provides additional support. The Port of San Diego is the title sponsor. Many of the sponsors, including hotels, restaurants, retail stores, and marina facilities, are Port tenants. Non-port tenant sponsors include various corporations and other organizations not located on the tidelands. Private donations from individuals and trusts account for a significant amount of the total contributions raised ($30,000 in 2018.). Overall donations reached $82,000 in 2018 and have totaled $967,000 since 2001.

STUDY PURPOSE AND SCOPE

This report seeks to assess the total economic impact of the Big Bay Boom by analyzing the results of 2018. This is important to the Port of San Diego, which contributes significant funds to the effort as do other agencies, non-profit entities, businesses, non-profit entities, media outlets, and individuals.

The study attempts to provide an objective analysis of the net economic benefits in terms of sales, income, GRP, and tax receipts to the local San Diego area. Analysis is also made of the return on investment (ROI) for the Port of San Diego based on the rents on sales generated for Port tenants and the expenses for safety, emergency, and other services.

The total economic benefits are analyzed not only in terms of the direct impact on sales activity of hotels, restaurants, and other businesses but also the various “ripple” or multiplier effects. These multiplier impacts reflect the supply chain effects and additional consumer spending caused by increases in hours worked and income. The value of media exposure is also evaluated and presented.
SURVEY RESULTS

In order to gauge the impact of the Big Bay Boom, surveys were distributed to hotels, restaurants, retailers, transportation companies, attractions, and other Port tenants. Hotel guests were also surveyed.

Those surveyed were questioned on a variety of issues, including the reason for their visit to San Diego during the July 4th holiday, the residence of hotel guests, the impact on sales compared with a typical summer day, the duration of hotel stays, and the impact on staffing and pay. The surveys are included in the Appendices of this report.

Respondents to the survey indicated substantial increases in their business due to the fireworks. Relative to a typical day during the summer season (excluding holidays), restaurants saw about a 25% advance in sales on July 4th, while retailers experienced a rise of about 21%. The advance was substantially higher for many boat operators and parking venues.

Hotels experienced daily sales gains averaging about 23%. Guests stayed for an average of 2.75 days, indicating the impact on “shoulder” days before and after the July 4th holiday itself. Hotels realized high rates of occupancy during the July 4th event. Survey respondents indicated an average occupancy rate of 99% during the time of the July 4th event, with many properties experiencing 100% occupancies. In comparison, occupancy rates averaged about 91% during other days during the summer season.

Significantly, about 65% of hotel guests came explicitly because of the Big Bay Boom. As an indication of the Big Bay Boom’s draw of “outside” money, nearly three-fourths of hotel guests on July 4th were from outside the County of San Diego.
**ECONOMIC EFFECTS**

The Big Bay Boom Fireworks of 2018 generated sales gains for a wide range of businesses in San Diego. While venues along the water, which are part of the San Diego Port District, saw the greatest impact, businesses within a 5-10 mile radius are estimated to have realized sizable “spillover” effects. In total, the direct sales impact of the July 4th, 2018 event is estimated at $10.1 million.

Hotels, including the restaurants, shops, and services provided on their properties, accounted for the largest component at $8.4 million. Stand-alone restaurants realized sales of over $700,000 as a result of the 2018 Big Bay Boom. Retail stores, tour operators, charter cruise businesses, boat rental companies, transportation services, and various attractions saw sales of nearly $600,000 accruing from the event. Parking venues saw an impact of more than $350,000 in revenues from the event.

In addition to the $10.1 million of direct sales, the ripple or multiplier effects yielded an estimate of another $7.7 million. This means that the Big Bay Boom Fireworks of 2018 generated a total impact on business sales of an estimated $17.8 million.

Direct spending accounted for 57% of the total. Approximately 16% represented the impact on sales of various businesses along the supply chain as recipients or entities directly benefiting from the fireworks event acquired necessary goods and services. The remaining 27% reflected the additional spending of employees working and earning income by businesses positively affected either directly or along supply chains by the Big Bay Boom.
The total impact on business sales linked either directly or indirectly to the July 4th fireworks event is thus estimated at $17.8 million. The part of this amount attributed to the direct effect of the event was spent in the timeframe immediately surrounding the fireworks, whereas some of the multiplier effects were probably disbursed over a longer time. The implicit "multiplier", or the ratio of total to direct spending was about 1.76, which means that every $100 of sales generated directly by the event yielded another $76 in spending along the supply chain or in consumer spending.

Individuals who earned money working as a result of the Big Bay Boom in 2018 received an estimated $7.9 million in pay. The 2018 fireworks event also contributed a total of $12.4 million to the region’s total gross regional product (GRP).

| Economic Effects of the Big Bay Boom 2018 July 4th fireworks, millions of dollars |
|---------------------------------|----------------------------------|
| **TOTAL SALES**                | **$ 17.8**                      |
| Direct Sales                   | **$ 10.1**                      |
| Multiplier Effects             | **$ 7.7**                       |
| **GROSS REGIONAL PRODUCT**     | **$ 12.4**                      |
| **INCOMES**                    | **$ 7.9**                       |

**MEDIA IMPACT**

The Big Bay Boom generates significant exposure for San Diego on TV, radio, the web, social media, as well as in magazines and newspapers. The combined total dollar effect of the media exposure related to the 2018 fireworks was an estimated $1.1 million.

Outlets featuring the 2018 Big Bay Boom included:

- Articles in the San Diego Union-Tribune, together with viewing online and in social media
- Promotions in San Diego Magazine
- TV broadcasts by FOX5 San Diego and KTLA
- Simultaneous broadcasts by MAX 105.7 and Mighty 1090
- Sponsor highlights on FOX5 morning news
- FOX5 and KTLA social media
The FOX5 broadcast of the Big Bay Boom on July 4th, 2018, during the 9:00-9:30 pm time slot was the night’s highest-rated program in San Diego for the fourth consecutive year. During that time period, a combined 148,000 households watched the 2018 Big Bay Boom Fireworks on TV in San Diego and Los Angeles via FOX5 and KTLA. It was the most watched locally-produced special in the country. In San Diego, consumer ratings of the TV broadcast were nearly double that of the Macy’s July 4th fireworks.

The broad-based media coverage of the Big Bay Boom helps to extend San Diego’s visibility and burnish its brand name. It thus provides valuable support to efforts to market the region’s important tourism base.

**IMPACT ON THE PORT OF SAN DIEGO**

The wide range of Port tenants, spanning hotels, restaurants, retail stores, tour operators, boats, parking venues and other enterprises, gained substantially from the Big Bay Boom in 2018. Total sales estimated to have been generated by the event equaled $8.2 million. These sales generated, through the rents paid, a total of $587,000 for the Port of San Diego.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SALES</th>
<th>PORT RENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Rooms &amp; Related Services</td>
<td>$5,004,279</td>
<td>$350,300</td>
</tr>
<tr>
<td>Hotel Restaurant Food</td>
<td>$1,270,426</td>
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</tr>
<tr>
<td>Hotel Restaurant Beverage</td>
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<td>Hotel Retail &amp; Sundry Shops</td>
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<td>Hotel Guest Services</td>
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<tr>
<td>Restaurants, full and limited services – food</td>
<td>$439,000</td>
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<tr>
<td>Restaurants, full and limited services – beverage</td>
<td>$145,871</td>
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<td>Harbor Excursions &amp; Sportfishing Charters</td>
<td>$291,994</td>
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<td>Retail Merchandise</td>
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<td>Retail Groceries</td>
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<td>Hotel Parking Services</td>
<td>$185,255</td>
<td>$37,051</td>
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<tr>
<td>Parking revenue - AMB lot on Harbor Island Drive</td>
<td>$2,170</td>
<td>$1,497</td>
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<tr>
<td>Parking revenue - all other ACE &amp; ABM lots</td>
<td>$103,687</td>
<td>$69,470</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$8,187,780</strong></td>
<td><strong>$586,963</strong></td>
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Source: FBEI
The Port of San Diego furnished significant support for the Big Bay Boom, with public safety and security, traffic control on and off the water, park cleanup, and other services. For the July 4th event in San Diego, the Port provided support by the San Diego Harbor Police, other personnel, equipment, and materials costing $140,000. It contributed a further $190,000 to the Big Bay Boom as the title sponsor, bringing its total expense related to the July 4th event to $330,000.

The Port’s $587,000 revenue from the July 4th event substantially outweighed its $330,000 of total expenses. The net benefit of $257,000 represented an ROI of 78%, indicating the overall value of the Big Bay Boom to the Port itself as well as to its tenants.

**TAX EFFECTS**

The Big Bay Boom resulted in a significant amount of tax receipts for the City of San Diego during 2018. Sales taxes generated by restaurants and various retailers are estimated at $224,000 in the timeframe immediately surrounding the event.

Hotel taxes attributed to the 2018 Big Bay Boom are estimated at $782,000. This amount is comprised of $657,000 of the Transient Occupancy Tax (TOT) and $125,000 for the Tourism Marketing District (TMD).

The total value of local tax receipts produced by the July 4th fireworks show in 2018 thus amounted to approximately $1.0 million.
CONCLUSION

The Big Bay Boom celebrated its 18th year in San Diego by delivering significant economic and other benefits to the San Diego region. It created sizable increases in sales for various businesses in the Port District as well as those in the surrounding area. People hired for extra hours and pay took home additional earnings.

After expenses, the Port saw a high rate of return on its investment, while the City realized significant additional tax revenues. With media exposure valued at over $1.0 million, the Big Bay Boom further burnished San Diego’s brand name. Finally, while more than 500,000 people enjoyed the event, it provided vital support to the San Diego Armed Services YMCA.
APPENDICES

Appendix A: Methodology

To assess the impact of the Big Bay Boom, surveys were sent to various Port tenants, including, hotels, restaurants, retail establishments, recreational facilities, tour operators, and marina businesses. Hotel guests were also surveyed.

The questionnaires distributed either directly or via e-mail are included in the Appendix. The surveys were customized according to four segments: Hotels; hotel guests; restaurants, retail stores, and other businesses; and transportation firms.

The questionnaires were designed to gain information and insights on several different issues, including:

• The number of days affected by the fireworks show
• The increase in revenue or sales as a result of the event relative to a typical non-holiday day during the summer season
• The shares (percentages) of visitors estimated to come from the City of San Diego, San Diego County, or outside of the San Diego region
• The impact on hotel occupancy rates vis-à-vis a typical non-holiday summer day
• The relative important of the Big Bay Boom in visitors’ decisions to come to San Diego for the July 4th holiday.

In addition to the survey data, the San Diego Tourism Authority and the Port of San Diego provided valuable data and research.

The first step of the analysis involved determining the sales of a typical summer day to use as a baseline. Detailed data on sales for June 2018 for different types of businesses from the Port of San Diego was used for this purpose. The survey data was then utilized to estimate the sales that took place on July 4th for the various business categories and the number of days affected. Survey data supplied the average percentage increases in daily sales, which were applied to the June daily figures from the Port to determine the sales on July 4th.

Because no conventions are held during the July 4th holiday, the hotel baseline daily averages were reduced accordingly.

Further reductions in the base daily averages were made for all categories to reflect the assumption that the absence of the Big Bay Boom would divert people to other venues and activities on July 4th. Some survey respondents have indicated they would not stay open if there were no major fireworks display. Some patrons might leave the area for other fireworks displays, while others might stay at home and watch fireworks from other sites around the country on TV or attend barbeques with family and friends.
The adjusted base daily average (reflecting the absence of conventions and major fireworks activity) was subtracted from the July 4th sales, which was then multiplied by the number of days impacted. This figure represented the marginal impact of the Big Bay Boom on each category of spending. To reflect the spillover effects of Big Bay Boom spending beyond the immediate area occupied by Port tenants, the marginal impacts of the various categories were increased to reflect the larger market extending 5-10 miles from the harbor.

The IMPLAN® model was used to analyze the total economic impact of the Big Bay event. This is a widely used model to evaluate the various ripple or multiplier effects of an increase in spending on a region’s sales, output, and income. These ripple effects encompass two stages: supply chain and consumer effects. The supply chain effects reflect the effect on other businesses when a local hotel or retailer has to purchase additional goods or services to support its own increase in sales or activity. The consumer effects refer to the increase in household outlays due to the gain in jobs and income created by the direct impact of the fireworks event as well the effects along the supply chain.

For the purpose of modeling, the incremental effects on sales due to the July 4th event was divided into various industry categories. These included hotels, restaurants, various retailers, grocery stores, transportation, and other relevant categories.

Adjustments were made to account for inflation and convert the results into current dollars. Simulations were then run to obtain the direct, indirect, and total impact of the Big Bay Boom on the area’s total sales, gross regional product (GRP), and income.

Sales taxes were calculated using the current tax rate in the City of San Diego of 7.75%. Direct sales were used for spending categories from restaurants and retail stores subject to the sales tax along with spending by individuals working as a result of the Big Bay Boom Fireworks.

For hotels, total taxes were based on the current transient occupancy tax (TOT) rate of 10.5% plus the 2.0% tax for the Tourism Marketing District (TMD).

Port tenant sales were separated into the various categories based on the rental rates they pay to the Port of San Diego. Port rents were summed to determine the Port’s total monetary benefits from the July 4th event and compared to the costs of supporting the Big Bay Boom.

To gauge the economic value of media exposure through TV, radio, the internet, newspapers, and magazines, the services of Stitch Marketing Research were retained along with data based on Nielsen ratings and information supplied by the various media outlets.
Appendix B: Survey Questionnaire for Hotels

1. How many days are affected by the fireworks show? ______________ (July 4th plus shoulder days)

2. What is the average daily revenue (including restaurants and shops) on a typical non-holiday day during the summer season? $______________/day

3. What is the average daily revenue (including restaurants and shops) during the July 4th event? $______________/day

4. What is the average daily employee count on a typical non-holiday day during the summer season? No.______________/day

5. What is the average daily employee count during the July 4th event? No.______________/day

6. What is the average employee hourly wage on a typical non-holiday during the summer season? $______________/hour

7. What is the average employee hourly wage during the July 4th event? $______________/hour

8. What is the average occupancy rate on a typical non-holiday during the summer season? _________%

9. What is the average occupancy rate during the July 4th event? _________%

10. What percentage of your hotel guests would you estimate come from:
    City of San Diego? __________%
    County of San Diego? __________%
    Other? __________
Appendix C: Survey Questionnaire for Restaurants, Retail, and Other Businesses/Establishments/ Organizations

Name and Type of Business: __________________________

1. How many days are affected by the fireworks show? __________ (July 4th plus shoulder days)

2. What is the average daily revenue on a typical non-holiday day during the summer season? $______________/day

3. What is the average daily revenue during the July 4th event?
   $______________/day

4. What is the average daily employee count on a typical non-holiday day during the summer season? No.______________/day

5. What is the average daily employee count during the July 4th event?
   No.______________/day

6. What is the average employee hourly wage on a typical non-holiday during the summer season? $______________/hour

7. What is the average employee hourly wage during the July 4th event?
   $______________/hour

8. What percentage of your customers/patrons would you estimate come from:
   City of San Diego? __________%
   County of San Diego? __________%
   Other? __________%
Appendix D: Survey Questionnaire for Transportation

Name and Type of Business: __________________________

1. What is the average daily ridership and revenue on a typical non-holiday day during the summer season? No. of riders /day___________________$________________/day

2. What is the average daily ridership and revenue on July 4th? No. of riders /day___________________$________________/day

3. What is the average daily employee count on a typical non-holiday day during the summer season? No.______________/day

4. What is the average daily employee count during the July 4th event? No.______________/day

5. What is the average employee hourly wage on a typical non-holiday during the summer season? $________________/hour

6. What is the average employee hourly wage during the July 4th event? $________________/hour

7. What percentage of your customers/patrons on July 4th would you estimate come from:
   City of San Diego? ___________%
   County of San Diego? ___________%
   Other? ___________%
Appendix E: Survey Questionnaire for Hotel Guests

1. Did you come to San Diego specifically to watch the Fireworks Show?
   - Yes
   - No

2. Please indicate your residency:
   - City of San Diego
   - County of San Diego
   - Other ____________________

3. If not a San Diego resident, how long will you stay here during this visit? ____________