



# THE ECONOMIC IMPACT OF BOATING VISITOR SPENDING IN LAKE HAVASU CITY, ARIZONA

Prepared for the:

**Lake Havasu City Partnership for Economic Development**

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This research is paid in partnership with the following organizations that are invested in Lake Havasu City's local economy.



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## EXECUTIVE SUMMARY

The economic activity generated from boating visitors (out-of-state and non-resident in-state boaters) impacts all industry and occupational groups in Lake Havasu City. Boating visitor spending supports over 2,000 jobs, generates more than \$63 million in income and adds over \$30 million in tax revenues.

- Annually, visiting boaters spend \$154,269,300 in Lake Havasu City.
- The economic activity generated from boating visitors supports 2,057 local jobs.
- The economic activity generated from boating visitors adds \$63,026,321 in local income.
- Of the 2,057 jobs supported by visitor boater spending, approximately 394, or 19 percent, earn wages that are above the local average.
- The economic activity generated from visitor boater spending is estimated to increase tax revenues by \$30,050,976; of which \$15,989,266 is Federal collections and \$14,061,710 is State & Local.



## IMPACT SYNOPSIS

Out-of-state and non-resident in-state visiting boaters spend \$154,269,300 annually in Lake Havasu City which supports 2,057 local jobs. The spending directly supports 1,583 local jobs, indirectly supports 230, and with the results of increased household spending, induces the creation of another 243 jobs (see Table 1).<sup>1</sup>

In terms of local income, boating visitor spending increases local income by a total of \$63,026,321. Income is increased directly by \$47,665,162, indirectly by another \$6,899,609 and then by \$8,461,549 through increased local household spending.

Annual tax revenues are estimated to increase by \$30,050,976 as a result of boating visitor spending. Federal tax revenues increase by \$15,989,266 and State & Local tax revenues by \$14,061,710.

Table 1  
**Boating Visitor Spending-Lake Havasu  
 Impact Synopsis**

<b>Annual boating visitor spending</b>	<b>\$154,269,300</b>
<b>Impacts</b>	
<b>Total Employment</b>	<b>2,057</b>
Direct	1,583
Indirect	230
Induced	243
<b>Total Income</b>	<b>\$63,026,321</b>
Direct	\$47,665,162
Indirect	\$6,899,609
Induced	\$8,461,549
<b>Total Tax</b>	<b>\$30,050,976</b>
Federal	\$15,989,266
State & Local	\$14,061,710

<sup>1</sup> The effects of a stimulus on economic activity (boating visitor spending) are measured by three components: **Direct effects** are the initial changes or purchases experienced by an industry. **Indirect effects** are the changes in inter-industry (supply chain) purchases as they respond to the new demands of the directly affected industries. **Induced effects** are the changes in spending from households as income increases due to the changes in economic activity/production.



## EMPLOYMENT & INCOME IMPACT DETAILS

Spending by out-of-state and non-resident in-state visiting boaters in Lake Havasu supports employment and generates income in all major industry groups (see Tables 2 and 3). While the initial spending is concentrated in seven industry groups; indirect and induced effects transmit the impacts throughout the entire local economy.

*Accommodation & Food Services* is the most impacted industry group; accounting for roughly one-half of the total employment impacts and 38 percent of the total income impacts.

Table 2  
**Boating Visitor Spending Impact-Lake Havasu  
 Employment by Industry Groups**

<b>Industry Group</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Accommodation & Food Services	1,014.6	23.3	41.5	1,079.4
Administrative & Support Services	73.9	35.0	11.0	119.8
Arts, Entertainment, & Recreation	28.5	4.1	4.9	37.5
Construction	-	12.2	3.8	16.0
Educational Services	-	0.1	4.4	4.5
Finance & Insurance	-	6.5	9.9	16.4
Government	-	2.7	2.4	5.1
Health Care & Social Assistance	-	-	51.9	51.9
Information	-	7.7	2.3	10.4
Manufacturing	-	5.9	2.1	8.0
Repair & Maintenance Services	114.6	8.4	23.5	146.5
Professional, Scientific, & Technical Services	-	30.4	9.0	39.4
Real Estate & Rental	35.2	47.1	24.1	106.5
Retail Trade	276.0	18.0	40.2	334.3
Transportation & Warehousing	40.3	22.8	6.9	70.0
Utilities	-	2.3	0.9	3.2
Wholesale Trade	-	3.8	3.8	7.6
<b>Total</b>	<b>1,583</b>	<b>230</b>	<b>243</b>	<b>2,057</b>



Table 3  
**Boating Visitor Spending Impact-Lake Havasu  
 Income by Industry Groups**

<b>Industry Group</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Accommodation & Food Services	\$22,374,157	\$526,549	\$867,908	\$23,768,615
Administrative & Support Services	\$3,342,183	\$894,463	\$264,561	\$4,501,208
Agriculture & Forestry	\$0	\$935	\$1,347	\$2,282
Arts, Entertainment, & Recreation	\$388,205	\$69,247	\$82,959	\$540,411
Construction	\$0	\$372,069	\$116,550	\$488,619
Educational Services	\$0	\$2,460	\$132,310	\$134,769
Finance & Insurance	\$0	\$286,244	\$352,691	\$638,934
Government	\$0	\$154,613	\$134,668	\$289,280
Health Care & Social Assistance	\$0	\$1,206	\$3,205,677	\$3,206,883
Information	\$0	\$509,000	\$116,326	\$625,325
Manufacturing	\$0	\$226,537	\$91,515	\$318,053
Repair & Maintenance Services	\$7,843,012	\$496,458	\$841,853	\$9,181,323
Professional, Scientific, & Technical Services	\$0	\$1,060,059	\$354,886	\$1,414,946
Real Estate & Rental	\$4,267,606	\$218,024	\$141,848	\$4,627,478
Retail Trade	\$6,983,808	\$595,842	\$1,340,180	\$8,919,829
Transportation & Warehousing	\$2,466,191	\$1,112,817	\$164,855	\$3,743,865
Utilities	\$0	\$206,653	\$83,195	\$289,848
Wholesale Trade	\$0	\$166,433	\$168,220	\$334,653
<b>Total</b>	<b>\$47,665,162</b>	<b>\$6,899,609</b>	<b>\$8,461,549</b>	<b>\$63,026,321</b>



## OCCUPATIONAL IMPACT DETAILS

By matching locally impacted industries to their expected occupational compositions employment impacts were converted into occupational impacts. This analysis can be helpful in providing a more complete and practical picture of the local economic impacts.

Boating visitor spending impacts all major occupational groups in Lake Havasu City (see Table 4). *Food Preparation & Serving Related* occupations have the highest number of supported positions, 590.7 jobs or 29 percent of the total. Of the 2,057 jobs supported by visitor boater spending 394, or 19 percent, have hourly wages that are above the local average (\$18.09).

Table 4  
**Boating Visitor Spending Impact-Lake Havasu  
 Employment by Major Occupational Groups**

Major Occupational Group	Number of Jobs	Mean Wage	Median Wage	Average Annual Wage
Architecture & Engineering	4.1	\$28.12	\$27.25	\$58,490
Arts, Design, Entertainment, Sports & Media	18.9	\$18.92	\$16.14	\$39,360
Building & Grounds Cleaning & Maintenance	202.9	\$11.90	\$11.09	\$24,750
Business & Financial Operations	45.0	\$25.81	\$22.91	\$53,680
Community & Social Service	3.5	\$19.17	\$18.58	\$39,860
Computer & Mathematical	11.3	\$31.70	\$29.17	\$65,940
Construction & Extraction	17.7	\$18.30	\$17.67	\$38,060
Education, Training, & Library	6.8	\$19.88	\$17.08	\$41,350
Food Preparation & Serving Related	590.7	\$10.20	\$9.07	\$21,220
Healthcare Practitioners & Technical	27.3	\$36.26	\$29.16	\$75,410
Healthcare Support	15.3	\$14.29	\$13.45	\$29,720
Installation, Maintenance & Repair	145.4	\$20.61	\$18.61	\$42,870
Legal	2.7	\$35.44	\$32.63	\$73,720
Life, Physical, & Social Science	1.5	\$27.33	\$25.83	\$56,840
Management	79.0	\$37.23	\$32.52	\$77,450
Office & Administrative Support	298.9	\$15.10	\$13.87	\$31,410
Personal Care & Service	94.9	\$10.94	\$9.41	\$22,750
Production	52.2	\$16.19	\$14.41	\$33,670
Protective Service	30.3	\$19.59	\$17.46	\$40,750
Sales & Related	312.9	\$12.64	\$10.12	\$26,300
Transportation & Material Moving	96.1	\$15.71	\$13.26	\$32,670
<b>Total (wages weighted)</b>	<b>2,057</b>	<b>\$14.92</b>	<b>\$13.14</b>	<b>\$31,036</b>

Source: *Wages, Arizona Office of Employment and Population Statistics, 2015, Lake Havasu City-Kingman*



## ESTIMATED TAX IMPACTS

The tax impact provided is based on the economic interactions of the input-output model. Because of the complexity and dynamics of local taxation characteristics, these results should be viewed as general estimates.

The estimated total tax revenue from boating visitor spending in Lake Havasu City equals \$30,050,976 annually (see Table 5). The total estimated federal tax revenue generated by boating visitor spending is \$15,989,266 annually. State & local tax revenues (the model does not permit separation of the two entities) generated by boating visitor spending is \$14,061,710 annually.

Table 5

### **Boating Visitor Spending Impact-Lake Havasu Employment by Industry Groups**

<b>Total Tax Impact</b>	<b>\$30,050,976</b>
Federal	\$15,989,266
State & Local	\$14,061,710



## SUMMARY

The economic activity generated by out-of-state and non-resident in-state visiting boaters impacts all industry and occupational groups in Lake Havasu City. Boating visitor spending supports over 2,000 jobs, generates more than \$63 million in income and adds over \$30 million in tax revenues. The sizeable spending by boating visitors impacts the entire economy as it spreads throughout industries and households.

The spending of out-of-state and non-resident in-state boaters in Lake Havasu City provides a significant contribution to the local economy. Total annual boating visitor spending equals \$154,269,300 in Lake Havasu City. Boater spending supports 2,057 local jobs, of which 1,583 are supported directly, 230 indirectly, and 243 induced as the results of increased household spending.

In terms of income, boating visitor spending increases local income by a total of \$63,026,321. Income is increased directly by \$47,665,162, indirectly by \$6,899,609 and by another \$8,461,549 through increased local household spending.

Annual tax revenues are estimated to increase by \$30,050,976 as a result of boating visitor spending. Federal tax revenues increase by \$15,989,266 and State & Local tax revenues by \$14,061,710.

Boating visitor spending impacts all occupational groups in Lake Havasu City. Of the 2,057 jobs generated from visitor boater spending, 394 or 19 percent have hourly wages that are above the local average (\$18.09).



## METHODOLOGY & SOURCES

This study seeks to provide objective and accurate results based on industry-accepted methodology and clearly-documented source data.

### GEOGRAPHY

Industry information from ZIP Codes 86403, 86404, 86405 and 86406 were used to approximate the Lake Havasu City municipal area. Detailed industry information is not available for municipal areas. However, an examination of population distribution by ZIP Codes confirms that Lake Havasu City residents represent 94.1 percent of the population within the selected ZIP Codes boundaries.<sup>2</sup>

### USE AND SPENDING DATA

Specific information for boaters using Lake Havasu was taken from the 2012 Arizona Watercraft Survey.<sup>3</sup> The data pertinent to this report was collected by Behavior Research Center, Inc. via a telephone survey of 6,803 registered boat owners in Arizona, California, Nevada and Utah. Survey respondents were questioned on the location, duration and spending activity related to their boating activities in Arizona over the previous 12 months. Questionnaire results provided state of origin, boat use days, party size, and trip median daily expenditures for boaters using Lake Havasu (see Table 6). Additionally, respondents were asked to provide a trip spending breakdown into eight categories (restaurants, lodging, etc.).

To prevent counting resident boater spending in the boating visitor spending total, an adjustment was made to the Arizona Boat Use Days. Using survey results from the 2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP)<sup>4</sup> it was determined that 27 percent of the Arizona Boat Use Days in Lake Havasu were likely from local resident boaters.<sup>5</sup> Although the

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<sup>2</sup> U.S. Census Bureau 2010 decennial (ZIP Code population = 55,808, Lake Havasu City population = 52,527).

<sup>3</sup> The Arizona Department of Transportation (ADOT), the Arizona Game & Fish Department (AGFD), and the Arizona State Parks Board (ASPB) are required, under Arizona Revised Statutes (Sec. § 28-5926), to conduct a study every three years on watercraft fuel consumption and recreational watercraft usage.

<sup>4</sup> Arizona State Parks in partnership with Arizona State University (ASU), School of Community Resources and Development conducted a telephone survey to measure outdoor recreation usage of Arizona households. The results include findings from 1,238 completed phone surveys; response rate was 33.5%. The telephone survey covered the participation of Arizonans in 22 outdoor recreation activities; the results were further broken down into the six Council of Governments regions.

<sup>5</sup> Twenty seven percent of the total Arizona users days attributed to participation in the recreational activity of “motorized water activity: boat, Jet Ski, or water ski”, resided in the Western Arizona Council of Government region (includes La Paz, Mohave and Yuma Counties). This figure likely overstates the role of resident boater spending in



SCORP was update in 2013, the results did not break out usage by regions. Using the 2008 results, Arizona boat use days were reduced to 251,535 (344,568 x 73%) for the impact calculation. Computing the adjusted boat user days by state for Lake Havasu with median daily expenditures, results in annual boating visitor spending of \$154,269,300.

Table 6  
**2012 Watercraft Usage: Registered Boats**  
**Lake Havasu**

	<b>Boat Use Days</b>	<b>Mean Party Size</b>	<b>Median Daily Expenditures</b>
<b>Arizona</b>	344,568	4.88	\$235
<b>California</b>	223,347	5.43	\$421
<b>Nevada</b>	4,665	4.78	\$125
<b>Utah</b>	2,296	3.5	\$238

Source: 2012 Arizona Watercraft Survey

## **ECONOMIC MODEL AND IMPACT GENERATION**

Impacts were generated by employing an economic model based on the existing industrial structure of the local area. The IMPLAN economic impact assessment software system<sup>6</sup> was utilized in the study.

The IMPLAN model was originally developed by the USDA Forest Service in cooperation with the Federal Emergency Management Agency (FEMA) and the USDI Bureau of Land Management to assist in resource management and planning. Currently the model is used by dozens of public, private, and academic organizations. The overriding objective of the model is to measure the full economic impact to a regional/local economy of a specific economic activity. The model is built upon a comprehensive matrix detailing the input-output relationships among industries and consumers. The primary matrix structure is derived from the U.S. Bureau of Economic Analysis's Benchmark Input-Output Model.

The national model is realigned to match the local economy. Output ratios and imports for over 500 industrial sectors in the area are assigned. Purchase coefficients are derived to measure the percentage of intermediate and final demands that are satisfied from local production and the percentage that are imported from outside the area. Consumer expenditure patterns, price deflators,

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Lake Havasu because it includes resident boaters of La Paz and Yuma Counties. No other source of information is available that offers a superior breakdown geographically, and any overstatement will have a minor effect on the final impact results.

<sup>6</sup> IMPLAN 16905 Northcross Drive, Suite 120 Huntersville, NC 28078



industry employment levels, household income groups and the area population are also factored in for the local economy.

As a result, the economic impact model is able to generate a set of multipliers. The multipliers calculate changes due to; the initial direct effects, the backwards indirect effects caused by the changing inputs to effected industries and the induced effects on household spending caused by the changes in household income. The multipliers also depict leakage from the area, which eventually diminish the effects to zero.

The model can report the resulting economic impacts in terms of output, employment, and value added. Besides aggregate impacts, the reports can also show effects upon individual industrial sectors.



## AUTHOR'S PROFILE

### Areas of Expertise

- Regional Economic Analysis
- Community Assessment
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- Regional Demographic Analysis
- Site Selection Analysis
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### Years of Experience

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### Chronology

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#### Asheville Area Chamber of

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#### Market Potential Mapping, LLC

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## TOM TVEIDT

*Research Economist, President SYNEVA Economics, LLC*

Tom is a research economist and President, Founder of SYNEVA Economics, LLC. His expertise is local, community-level economic assessment and evaluation. He is an active practitioner with experience in regional economy appraisals, industrial site selection, industry target selection, workforce analysis, and economic impact analyses.

SYNEVA Economics LLC expertise is assisting public and private decision makers with local and regional economic analysis. SYNEVA Economic LLC's value is providing clear and insightful information to help clients make knowledgeable, efficient and effective decisions.

Innovative projects have included in-depth evaluations of community and industry trends for the cities of Charlotte NC and Atlanta GA. Besides numerous community-level assignments, comprehensive workforce assessments have been conducted for the St. Joe Company in Florida, and an exhaustive evaluation of precise workers skills for all workforce investment areas in the state of Mississippi.

SYNEVA Economics' projects have included the economic impacts of a permanent National Scouting Center for the Boys Scouts of America, the Greenville-Spartanburg International Airport, the University of North Carolina in Asheville and the National Medal of Honor Museum in Charleston SC.

Mr. Tveidt is the past Chair of the Council for Community and Economic Research (C2ER) in Arlington, Virginia. C2ER is a membership organization created to promote excellence in community and economic research by working to improve data availability, enhance data quality, and foster learning about regional economic analytic methods. Tom is an invited instructor and presenter for the International Economic Development Council (IEDC), North Carolina Association of CPA's (NCACPA), and the C2ER. Tom presenting teaches the *Foundations of Applied Economic Development Research* course for C2ER.

Mr. Tveidt regularly speaks before business groups, government organizations and public assemblies, detailing regional economic trends and issues. He is frequently quoted in newspapers and business journals.



## FIRM OVERVIEW

**SYNEVA Economics**, incorporated in the State of North Carolina since 2003 and based in Asheville, is an innovative leader in data-driven regional economic analysis. The firm's key value is providing clear and insightful information that enables clients to make knowledgeable, efficient and effective decisions. As a regional economic research expert, SYNEVA Economics follows an adaptive business model, its role adjusting to the specific needs of each client and project. The firm at times works directly with municipal, community and economic development leadership and at other times serves as the research expert for firms such as Deloitte, Garner Economics, McCallum Sweeney Consulting, Urban3 and Younger Associates.

SYNEVA Economics' broad portfolio includes economic assessments for dozens of communities, industry targeting, economic impact analyses, workforce & skills assessments, micro-demographic analyses, and a host of custom analyses answering specific site and client needs. The range of research activities has been as broad as economic impact analyses for universities, international airports and major infrastructure projects to micro-demographics analyses of neighborhood gentrification and sub-state health insurance coverage.

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