

The Economic Significance of Travel to the Washoe County North Lake Tahoe Area *2012-2017 Detailed Visitor Impact Estimates*



February 2019

Prepared for the

Incline Village Crystal Bay Visitors Bureau
Incline Village, Nevada

The Economic Significance of Travel to the Washoe County North Shore Lake Tahoe Area

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EXECUTIVE SUMMARY

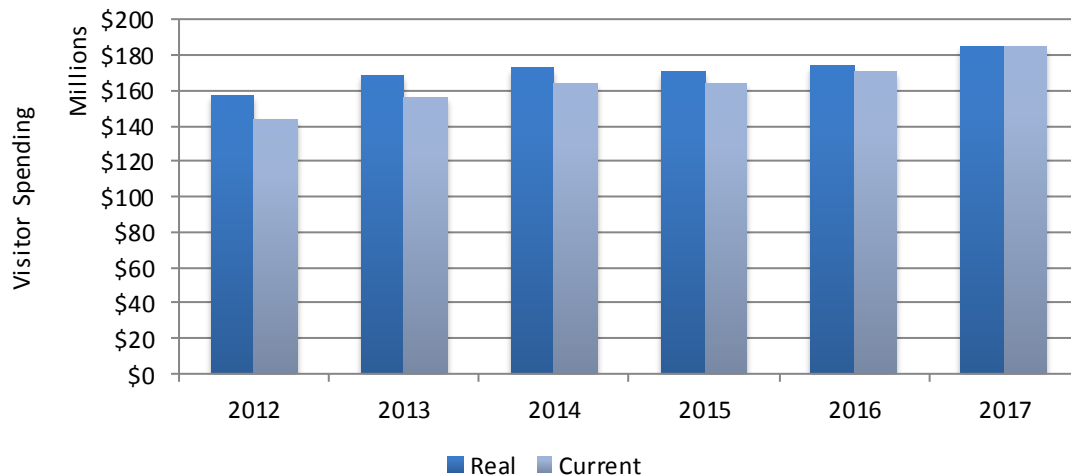
The Economic Significance of Travel to the Washoe County North Shore Lake Tahoe Area: Detailed Visitor Impact Estimates, 2012-2017 describes the economic impacts associated with all visitor spending in the North Lake Tahoe Area of Washoe County. Direct travel-generated impacts accounts for nearly \$185 million in visitor spending, providing 1,230 jobs with earnings of \$44 million made by employees and business owners throughout the North Lake Tahoe Area.

Washoe County North Shore Lake Tahoe Travel Impacts Summary Trend, 2012-2017

	Visitor Spending (\$Millions)	Earnings (\$Millions)	Employment (Jobs)	Local Tax (\$Millions)	State Tax (\$Millions)	Loc. & St. Tax (\$Millions)
2012	143.5	35.2	1,090	7.1	3.6	10.7
2013	156.0	37.6	1,150	8.0	3.9	11.9
2014	163.2	39.9	1,190	8.3	4.0	12.3
2015	164.0	40.8	1,190	8.7	4.0	12.7
2016	170.9	42.5	1,210	9.4	4.0	13.4
2017	185.3	44.0	1,230	10.5	4.3	14.8
<i>Annual Percentage Chg.</i>						
16-17	8.5%	3.5%	1.7%	11.9%	6.8%	10.4%
12-17	5.3%	4.5%	2.4%	8.1%	3.6%	6.7%

Visitor spending also generates local tax receipts (transient occupancy and sales taxes) of \$10.5 million, and state tax receipts (sales taxes, gasoline taxes, and state lodging tax) of \$4.3 million.

Total Visitor Spending in Real & Current Dollars North Lake Tahoe Area, 2012-2017



Note: Real spending is visitor spending adjusted for inflation

Source: Dean Runyan Associates, Bureau of Labor Statistics: CPI

The following tables provide an overview of all the visitor-generated economic impacts for the North Shore Lake Tahoe Area. The table below shows the total amount of jobs the visitor industry generates in the county.¹ Direct visitor generated employment is responsible for about 27 percent of employment in the North Shore Lake Tahoe Area.²

The bulk of the area's employment is generated through visitor spending in lodging accommodations (including rented homes and condominiums), food services, and recreation – during winter and summer – throughout the North Shore Lake Tahoe Area. The re-spending of travel-generated earnings by employees and businesses (referred to as secondary impacts) created over 736 additional jobs.

Total travel related employment includes an addition 350 jobs in construction and real estate. These jobs are generated by vacation home sales and construction activities. They are segregated from direct employment as they do not tie directly to the daily behaviors of visitation. That brings the total travel generated jobs (Direct, Secondary, Vacation home) to 2,316 jobs and 52 percent of all employment in the North Shore Lake Tahoe Area.

Employment & Employee Earnings Generated by Visitor Spending in the North Shore Lake Tahoe Area, 2017

Employment (Number of Jobs)	Direct	Secondary	Vacation Home	Visitor Related Total	Area Total	Percent Visitor
Leisure & Hospitality Serv.	1,150	107	0	1,257	1,270	99%
Retail & Misc. Services	80	160	0	240	320	75%
Construction	0	17	240	257	500	51%
Real Estate, Rental & Leasing	0	0	110	110	290	38%
All Other	0	452	0	452	2,060	22%
Total	1,230	736	350	2,316	4,440	52%
Employee Earnings (\$Millions)						
Leisure & Hospitality Serv.	41.5	3.9	0	45.4	46.7	97%
Retail & Misc. Services	2.5	6.8	0	9.2	10.2	91%
Construction	0	1.5	12.6	14.1	27.1	52%
Real Estate, Rental & Leasing	0	0	6.0	6.0	11.6	52%
All Other	0	26.6	0	26.6	212.2	13%
Total	44.0	38.8	18.5	101.4	307.8	33%

Source: Dean Runyan Associates, Census Bureau, Minnesota Implan Group³

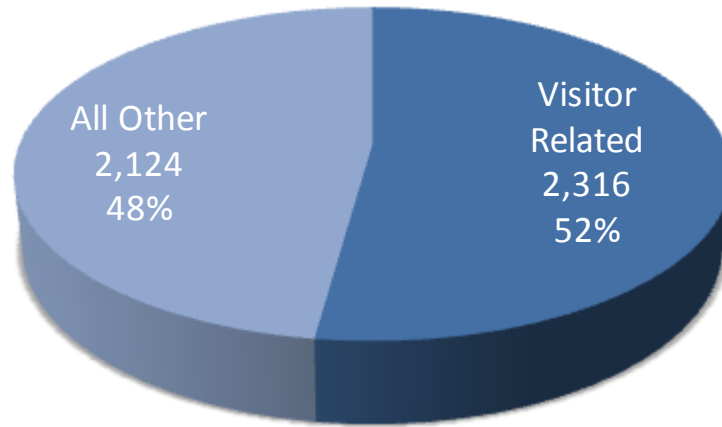
Note: Vacation Homes are differentiated from direct employment due to the nature of vacation home construction and sales not being generated by daily visitor behavior. Jobs include full and part-time positions.

¹ The Washoe County Implan model was prepared for calculating secondary impacts. This better represents economic activity of businesses and employees who live or purchase goods outside of the North Shore Lake Tahoe Area.

² See page 16 of this report for the Zip Business Patterns employment estimates. This is estimated due to lack of data at the sub county level.

³ Data from the California Employment Development Department was used as a proxy relationship for employee earnings due to the absence of comparable data in Nevada. This covers zip codes 96140, 141, 143, 145, 146, 148, 161. This area is considered to be the California North Lake Tahoe area.

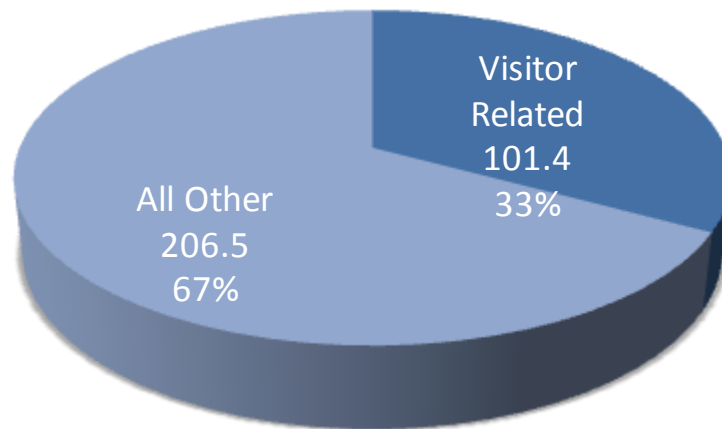
**Visitor-Related Share of Total Employment
North Lake Tahoe Area, 2017**



Total Employment: 4,440 Jobs

Source: Dean Runyan Associates, Census Bureau, Minnesota Implan Group

**Visitor-Related Share of Total Earnings
North Lake Tahoe Area, 2017**



Total Earnings: \$307.8 Million

Source: Dean Runyan Associates, Census Bureau, Minnesota Implan Group

PREFACE

The purpose of this study is to document the economic significance of the travel industry in the Washoe County North Shore Lake Tahoe Area. Detailed estimates of travel spending, the employment and earnings generated by this spending, and travel-generated tax receipts from 2012 through 2017 are provided in this report. In addition, the report provides visitor volume estimates as well as the secondary impacts associated with visitor spending.

Dean Runyan Associates prepared this study for the Incline Village Crystal Bay Visitors Bureau. Dean Runyan Associates has specialized in research and planning services for the travel, tourism and recreation industry since 1984. With respect to economic impact analysis, the firm developed and currently maintains the Regional Travel Impact Model (RTIM), a proprietary computer model for analyzing travel economic impacts at the state, regional and local level. Dean Runyan Associates also has extensive experience in project feasibility analysis, market evaluation, survey research, and travel and tourism planning.

Many individuals and agencies provided invaluable information for this report. Among the organizations involved in this effort were the Reno-Sparks Convention & Visitors Authority. Federal agencies include the U.S. Census Bureau, Bureau of Labor Statistics, Forest Service, and the Bureau of Economic Analysis.

Finally, special thanks are due to Andy Chapman, President/CEO for the Incline Village Crystal Bay Visitors Bureau. Without his support and assistance, this report would not have been possible.

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1. INTRODUCTION

Visitors traveling to the North Lake Tahoe Area generate a substantial portion of the area's economic activity. The local economy depends on visitors and owners of vacation homes who contribute significantly, as do many businesses that provide overnight accommodations, food and beverage service, and recreation opportunities. Further, the viability of many other types of businesses within the area is linked to the visitor industry. Throughout the Washoe County North Shore Lake Tahoe Area, visitors generate valuable sales receipts, earnings, employment and tax receipts for Washoe County, as well as the state of Nevada.

OBJECTIVES

This report describes the economic impacts of travel to the North Lake Tahoe Area from 2012 through 2017. In addition, this report includes estimates of the secondary (indirect and induced) impacts associated with visitor spending. A primary objective of this research is to provide reliable, detailed estimates, which allow for year-to-year comparisons to help guide decision making for planning, policy and marketing purposes. Specific objectives include:

- Provide an economic overview of the North Shore Lake Tahoe Area.
- Estimate the direct economic impacts of visitor spending.
- Estimate the impact of secondary businesses that are supported by the North Lake Tahoe Area visitor industry.

DATA SOURCES

This analysis makes use of numerous data sources, including but not limited to:

- County-level employment and personal income data from the Bureau of Economic Analysis' Regional Economic Information System (REIS)
- Payroll and employment data from the Bureau of Labor Statistics, and the U.S. Census Bureau.
- Room tax receipts from Reno-Sparks Convention & Visitors Authority.
- US Census Bureau population and housing data
- Study area employment, earnings and tax data from Minnesota Implan Group, Inc.
- Survey data on visitor spending from Omnitrak.

REPORT CONTENTS

Following this introductory chapter, Chapter 2 provides an overview of the spending impacts of visitors to the North Shore Lake Tahoe Area. Chapter 3 provides a comprehensive view of the area's earnings and employment, as well as the associated visitor-generated impacts. State and local tax impacts are presented in Chapter 4. Chapter 5 covers construction and real estate in the North Shore Lake Tahoe area, and Chapter 6 provides a summary overview.

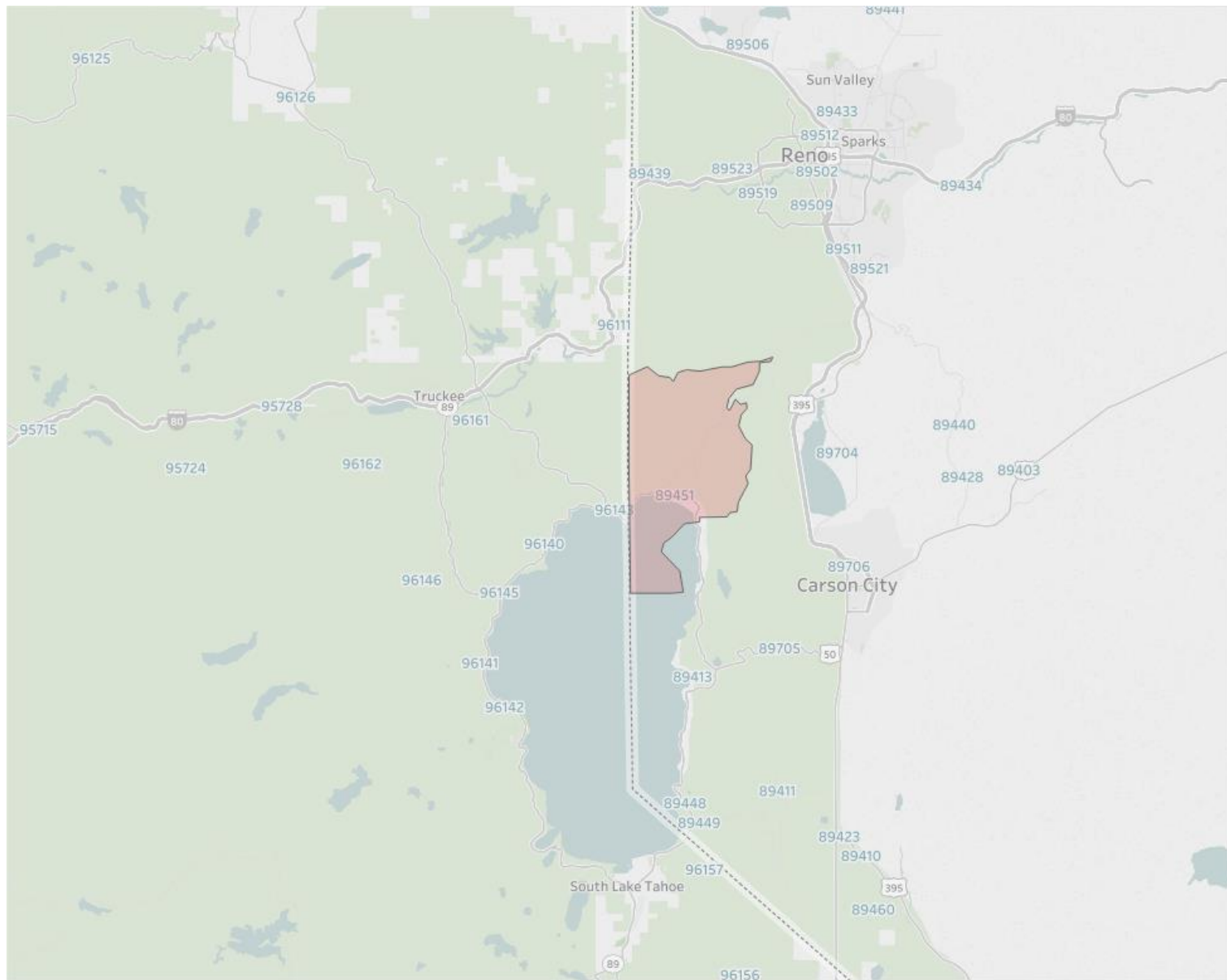
STUDY AREA

The area of study (see map on following page) is located in the central Sierra Nevada mountain range and encompasses the towns of Incline Village and Crystal Bay.

It is important to note that the North Shore Lake Tahoe Area lies adjacent to key visitor service and residential locations outside of Nevada, which include:

- The town of Truckee, CA, with a population about 16,000, and the area around Donner Lake (most of which lies within the city limits of Truckee) serve as a destination and gateway for many visitor activities. Interstate 80, a major east-west transportation corridor, passes through the town of Truckee and connects Northern California with Northern, Nevada.
- Located in the state of California Kings Beach, Tahoe Vista, Carnelian Bay, Tahoe City are within 10 miles of Incline Village. This area also houses some of the largest ski resorts in the United States.

Figure 1-1 :Study Area Highlighted



2. VISITOR VOLUME AND SPENDING

The visitor industry is the primary source of economic activity for the North Lake Tahoe Area. This section provides an overview of the spending impacts of visitors to the North Lake Tahoe Area from 2012 through 2017. This section also provides visitor volume estimates for a single year (2017). These visitor volume estimates provide a rough measure of the level of visitation and, with other data, demonstrate the validity of the visitor estimates. Detailed earnings and employment impacts directly derived from visitor spending are provided in Section 3.

MEASUREMENT OF TRAVEL IMPACTS

The estimates of the direct impacts associated with traveler spending in the North Lake Tahoe Area were produced using the Regional Travel Impact Model (RTIM) developed by Dean Runyan Associates. The input data used to detail the economic impacts of the travel industry in the North Lake Tahoe Area were gathered from various local, state and federal sources.

Travel impacts consist of estimates of travel spending and the employment, earnings, and state and local taxes generated by this spending. Estimates of travel spending are also broken out by type of traveler accommodation, and by type of commodity purchased.

The RTIM was calibrated specifically to represent the unique characteristics of the travel industry in the North Lake Tahoe Area. However, it is important to recognize the limitations of the estimates reported herein. In particular:

The North Shore Lake Tahoe Area is not a coherent economic region in terms of a visitor market, a labor market and producer markets (see the discussion of Study Area in the preceding section). This necessarily complicates and limits the estimation of visitor impacts. In addition, because of the geographic scope of the North Shore Lake Tahoe Area, some of the economic information used to make this impact analysis had to be inferred from data available for larger (e.g., county) jurisdictions.

A description of RTIM methodology is included in Appendix A.

TYPES OF TRAVELER ACCOMMODATION

Travelers are classified according to the type of accommodation in which they stay or as a day visitor to the area. The types of travelers are as follows:

Hotel/Motel There are approximately 560 rooms or units for accommodations of this type in North Lake Tahoe. A transient occupancy tax is collected on the rental of these accommodations.

STVR Short term vacation rentals. Transient Occupancy Taxes are also collected on the rental of condominiums or privately owned homes for rental periods of

less than thirty days. There are approximately 500 active rentals in the North Shore Lake Tahoe area.⁴ This number fluctuates throughout the year.

Unpaid Accommodation Private/Vacation Home does not include spending on accommodation. There are approximately 3,980 vacation homes in North Lake Tahoe Area that are not owner-occupied and not available as short-term rentals. The short-term residents and visitors who stay in these vacation homes do not pay rental fees and transient occupancy tax when they are using these accommodations. In addition, there are about 3,350 owner-occupied homes in which some visitors may stay as guests of friends and relatives.

Campgrounds. There are two areas that offer camping. The Spooner Back Country and Mt. Rose Campground.

Day Travel. Day visitors by definition do not stay overnight in the North Lake Tahoe Area. Normally, this would include a trip of at least 50 miles one-way from home. Thus, a day trip from Sacramento would count as a visit for the purposes of this study. Other day visitors may be staying in visitor accommodations just outside of the North Lake Tahoe Area. Thus, a visitor staying in a rented home in Truckee and visiting the North Lake Tahoe Area during the day would also be counted as a day visitor.⁵

VISITATION & SPENDING BY TYPE OF TRAVELER ACCOMMODATION

The graphs and tables in this section relate the spending of visitors in the North Lake Tahoe Area to the type and availability of accommodations. The definitions of the variables or categories used follow:

Average Daily Spending The average daily amount spent by each visitor on goods and services in the North Lake Tahoe Area. Normally, this includes accommodations, food services, recreation, and other retail expenditures while in the destination area. Transportation expenditures to and from the North Shore Lake Tahoe Area are not included. The primary source of these estimates is visitor survey data.⁶ Average daily spending by owners of vacation homes (seasonal residents) will include expenditures on some goods and services (e.g., household items) not typically included with visitors of shorter duration. Overall, however, these are a small proportion of total visitor spending. Visitor spending for seasonal residents does not include mortgage payments, insurance, construction, and durable goods purchases. Expenditures of this type by either full-time or seasonal residents cannot be reliably allocated to North Shore Lake Tahoe area businesses.

⁴ AirDNA MarketMinder for Incline Village/Crystal Bay and VRBO, the range of rentals reflects the seasonality of the market, and the rental listing nature of the operators/owners.

⁵ It should be noted that the estimate of day travel is the least reliable of all visitor types. It must be estimated primarily from survey data, since measures of accommodation occupancy are not relevant.

⁶ The survey data derived from the Omnitrak Traveltrak survey was adjusted for annual price changes by Dean Runyan Associates.

Total Visitor Spending The total amount of visitor spending for a particular calendar year. These estimates were generated by the Regional Travel Impact Model for the North Shore Lake Tahoe Area.

Visitor-Days The total number of days of all visitors who stayed in the North Lake Tahoe Area during the calendar year. This estimate is computed by dividing total visitor spending by average daily spending. For example, (\$179 million / \$119 average daily spending per person) = 1,512,000 visitor-days.

Party Size The average number of adults and children staying in each overnight unit of accommodation.

Length of Stay The average number of days each visitor stays in the North Shore Lake Tahoe Area on a trip away from home.

Visitor-Trips The number of adults and children visiting the North Shore Lake Tahoe Area on separate trips, including repeat visitors. Computationally, this is equal to visitor-days divided by length of stay.

Note: Several of these variables, including, party size, and length of stay can be adjusted to reflect data availability, without altering the visitor spending estimates.

OVERNIGHT VISITATION

The following tables and charts in this section provide visitation estimates for all accommodation types. The tables outlining the share of visitors draw attention to the important distinction between the number of visitor trips (number of adults and children who visited the area on separate trips, including repeat visitors) and the number of visitor-days (total days spent by all visitors in the area). For example, whereas roughly 42 percent of all visitors to the North Lake Tahoe Area stayed overnight in a hotel/motel, only 34 percent of all visitor-days are attributable to these visitors. Conversely, while 19 percent of all North Lake Tahoe Area visitors stayed in a short-term vacation rental, 27 percent of all visitor-days are attributed to these visitors, who stayed for an average of five days in the destination area.

North Shore Lake Tahoe Area Overnight Visitation by Type of Accommodation, 2017

	Avg. Daily Spending (Per Party)	Total Visitor Spending (Million)	Visitor- Days (Thousands)	Length of Stay (Days)	Visitor- Trips (Thousand)	Party Size (Visitors)
Hotel/Motel	\$522	\$101.7	505	2.7	187	2.6
STVR	\$402	\$49.4	410	5.0	83	3.3
Unpaid Accom.	\$123	\$26.3	569	3.4	166	2.7
Camping	\$104	\$0.4	20	2.4	8	4.7
Total	\$332	\$177.8	1,503	3.4	444	2.8

Source: Dean Runyan Associates

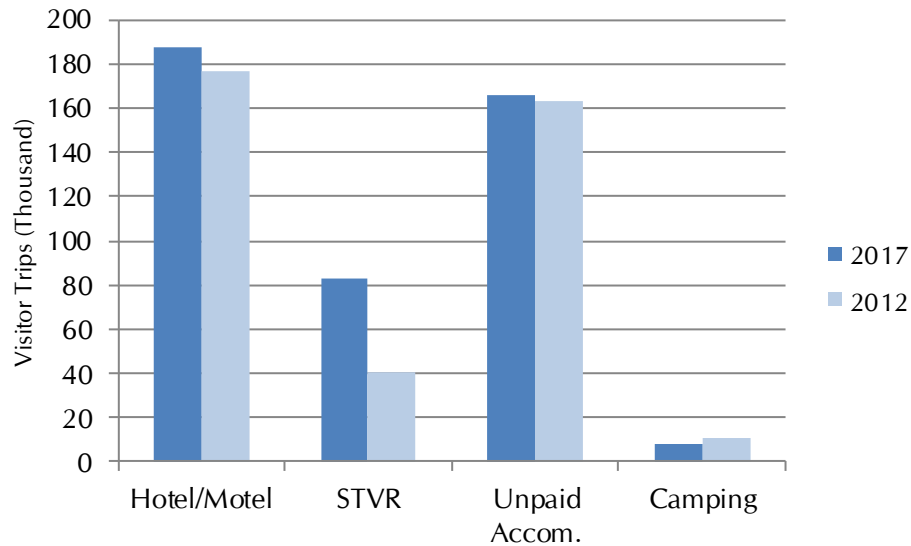
North Shore Lake Tahoe Area Overnight Visitation by Mode of Transportation, 2017

	Avg. Trip Spending (Per Party)	Avg. Daily Spending (Per Party)	Total Visitor Spending (Million)	Party- Days (Thousands)	Length of Stay (Days)	Party- Trips (Thousand)
Air	\$1,555	\$371	\$67.6	182	4.2	43
Ground	\$962	\$312	\$110.2	353	3.1	115
Total	\$1,125	\$332	\$177.8	535	3.4	158

Note: Does not include costs of air transportation

Source: Dean Runyan Associates

Overnight Visitor-Trips to the North Shore Lake Tahoe Area by Type of Accommodation, 2012 & 2017



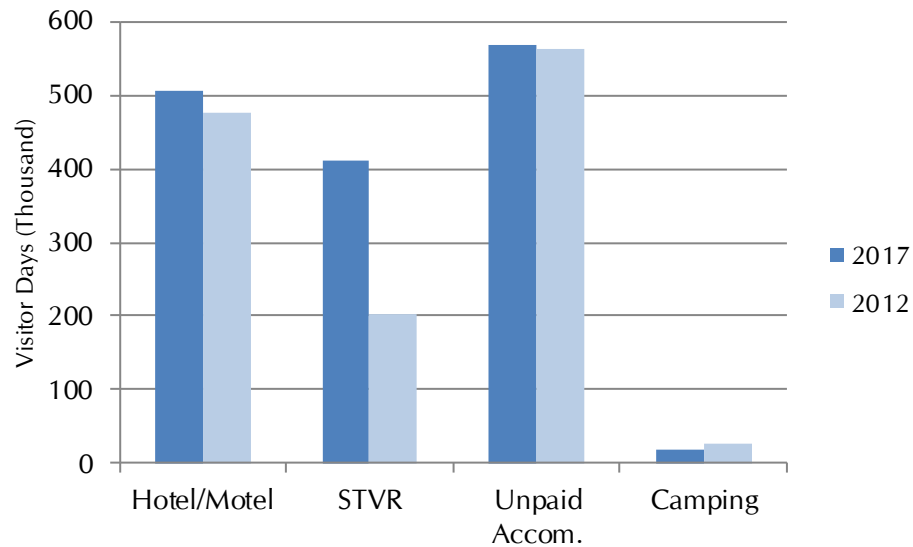
Source: Dean Runyan Associates

Share of Overnight Visitor Trips to the North Shore Lake Tahoe Area by Type of Accommodation, 2012 & 2017

	2012	2017
Hotel/Motel	45%	42%
STVR	10%	19%
Unpaid Accom.	42%	37%
Camping	3%	2%

Source: Dean Runyan Associates

**Overnight Visitor-Days in the North Shore Lake Tahoe Area
by Type of Accommodation, 2012 & 2017**



Source: Dean Runyan Associates

**Share of Overnight Visitor-Days in the North Shore Lake Tahoe Area
by Type of Accommodation, 2012 & 2017**

	2012	2017
Hotel/Motel	38%	34%
STVR	16%	27%
Unpaid Accom.	44%	38%
Camping	2%	1%

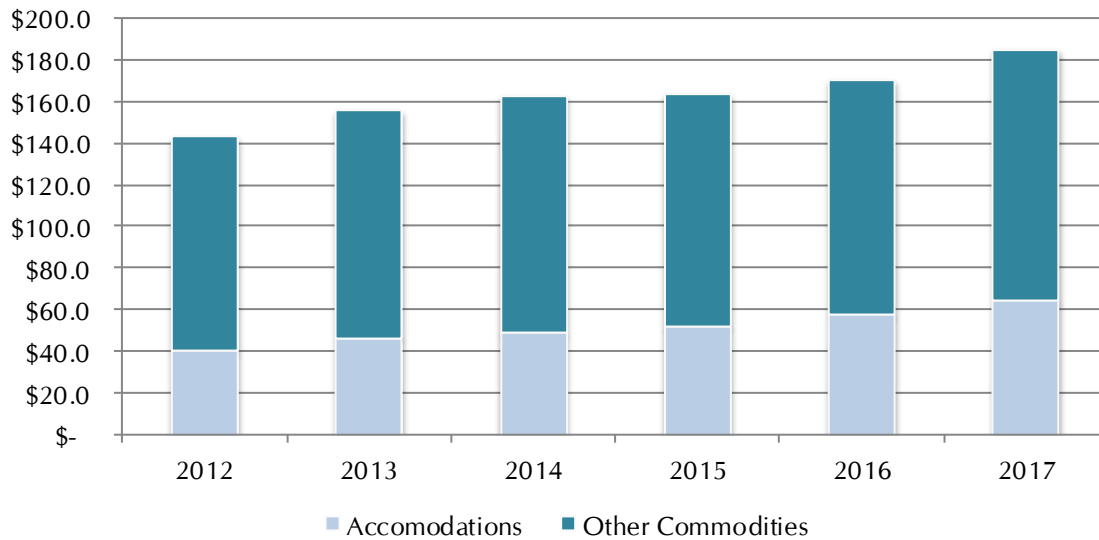
Source: Dean Runyan Associates

The prior tables discussing share of visitor trips and days show a sharp increase in short term vacation rentals along with subsequent decreases in the other categories. This reflects an increase in short term vacation rental inventory over time. That increase in supply creates more opportunity for more visitations. As shown in the parent bar charts, all categories except camping have seen growth in visitation since 2012.

VISITOR SPENDING TRENDS

The following bar chart illustrates the overall trend in visitor spending in the Washoe County North Shore Lake Tahoe Area from 2012 through 2017. Visitor spending peaked at \$185 million in 2017. In general, the trend of total visitor spending tracks the trend of accommodations spending, because over three-quarters of all visitor spending in the North Lake Tahoe Area occurs among people who stay overnight in hotels, motels, rented homes or units, and campgrounds.

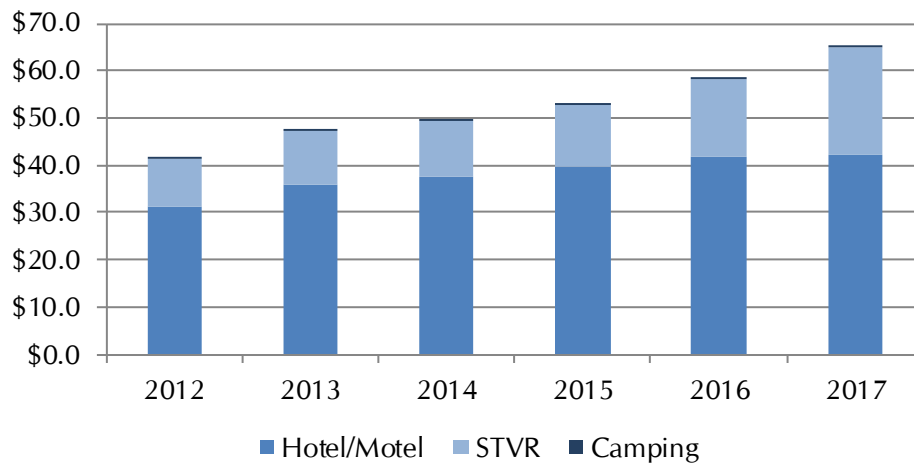
**Visitor Spending in the North Shore Lake Tahoe Area
by Accommodations and Other Commodities, 2012-2017**



Source: Dean Runyan Associates

Note: Other commodities include recreation, food services, various retail purchases, motor fuel, and miscellaneous services.

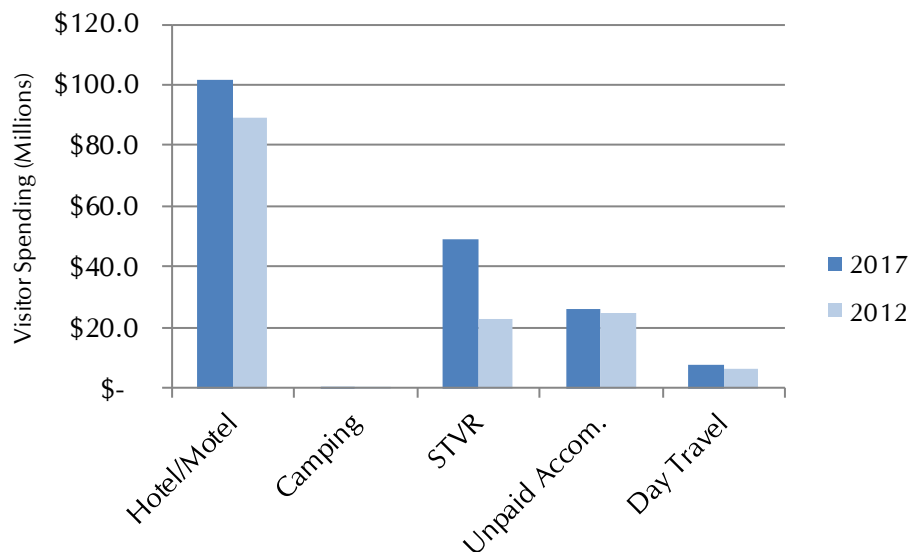
**Accommodation Spending in the North Shore Lake Tahoe Area
by Type of Lodging, 2012-2017**



Source: Dean Runyan Associates

In the chart below, total visitor spending in the North Shore Lake Tahoe Area for 2017 is broken out by type of accommodation (i.e., where visitors spend the night). During 2017, those who stayed overnight in hotels, motels, bed & breakfast inns spent \$101.7 million (55 percent of visitor spending). Additionally, visitors who stay in short term vacation rentals spent \$49.4 million (27 percent of visitor spending). These two groups are responsible for over 80 percent of visitor spending.

**Total Visitor Spending in the North Shore Lake Tahoe Area
by Type of Accommodation, 2012 & 2017**



Source: Dean Runyan Associates

**Share of Visitor Spending in the North Shore Lake Tahoe Area
by Type of Accommodation, 2012**

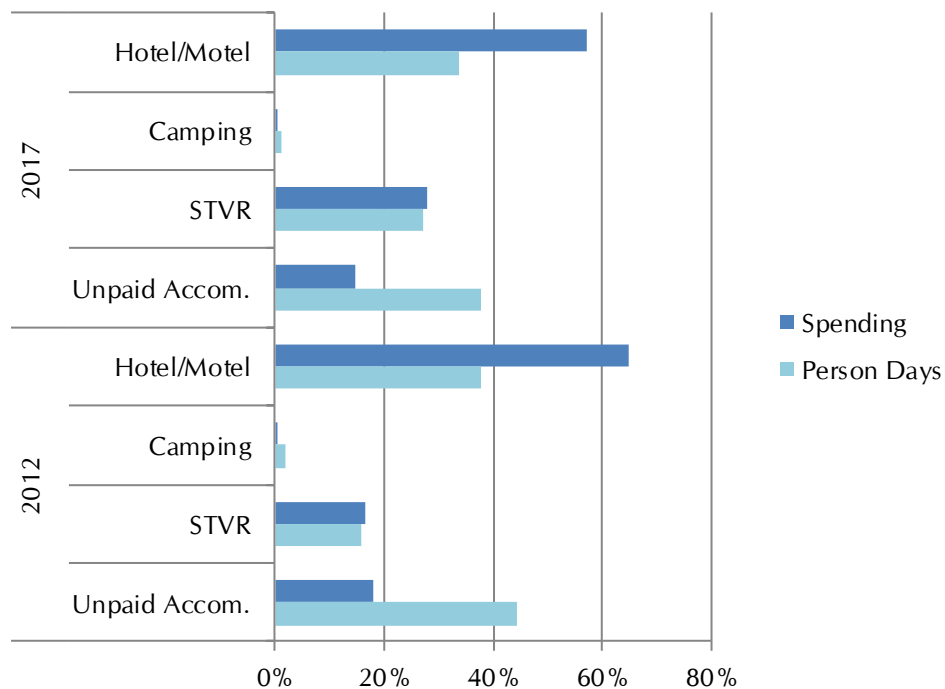
	2012	2017
Hotel/Motel	62%	55%
Camping	0%	0%
STVR	16%	27%
Unpaid Accom.	17%	14%
Day Travel	4%	4%

Source: Dean Runyan Associates

Note: Camping is less than 1 percent, due to rounding it is represented as zero.

It is also of interest to compare this spending breakout with visitor volume for 2017(2012). For example, while visitors staying in hotels, motels, bed & breakfasts make up 34 (38) percent of the overnight visitor-days, they comprise 55 (62) percent of overnight visitor spending. Conversely, those staying in private/unpaid vacation homes account for 38 (44) percent of the overnight visitor-days though just 14 (17) percent of overnight visitor spending.

**Total Overnight Visitor Spending & Visitor-Days in North Shore Lake Tahoe Area
by Type of Accommodation, 2012 & 2017**

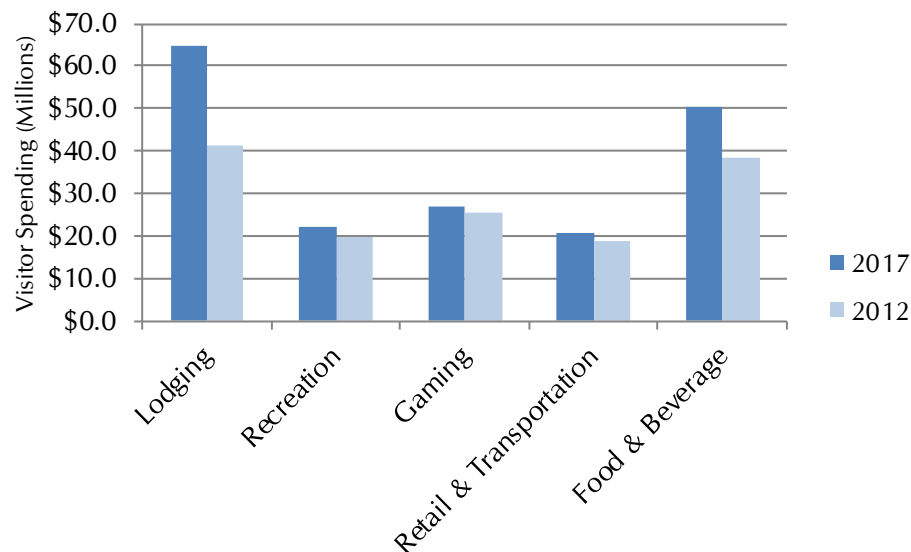


Source: Dean Runyan Associates

Note: Visitor spending for private/vacation home/time-share does not include mortgage payments, insurance, construction and durable goods purchases. Expenditures of this type by either full-time or seasonal residents cannot be reliably allocated to North Shore Lake Tahoe Area businesses.

The bar chart, *Total Visitor Spending in the North Shore Lake Tahoe Area by Type of Commodity*, provides a breakout of spending by the type of good or service purchased for all categories of visitors. As can be seen, the largest single category is lodging (35 percent). This includes spending on any type of overnight accommodation. Spending on Food and Beverage refers to spending on all food and beverages for on-premise consumption. Spending on retail and other includes all retail purchases (including groceries) and other miscellaneous goods and services. Spending on transportation includes motor fuel purchases.

**Total Visitor Spending in the North Shore Lake Tahoe Area
by Type of Commodity, 2012 & 2017**



Source: Dean Runyan Associates

**Share of Visitor Spending in the North Shore Lake Tahoe Area
by Type of Commodity, 2012 & 2017**

	2012	2017
Lodging	29%	35%
Recreation	14%	12%
Gaming	18%	15%
Retail & Transportation	13%	11%
Food & Beverage	27%	27%

Source: Dean Runyan Associates

The visitor spending estimates for the North Shore Lake Tahoe Area are presented in the following detailed table.

Washoe County North Shore Lake Tahoe Area Direct Travel Impacts Detail, 2012-2017

	2012	2013	2014	2015	2016	2017
Visitor Spending by Accomodation (\$Million)						
Hotel/Motel	89.0	98.4	103.1	102.6	102.1	101.7
STVR	22.8	25.4	27.1	28.6	35.6	49.4
Unpaid Accom.	24.9	25.0	25.7	25.6	25.8	26.3
Campground	0.5	0.6	0.4	0.4	0.4	0.4
<i>Overnight</i>	<i>137.2</i>	<i>149.3</i>	<i>156.4</i>	<i>157.2</i>	<i>163.9</i>	<i>177.8</i>
Day	6.3	6.6	6.9	6.8	7.0	7.5
Total Spending	143.5	156.0	163.2	164.0	170.9	185.3
Visitor Spending on Accomodations (\$Million)						
Hotel/Motel	31.2	36.0	37.4	39.7	41.8	42.3
STVR	10.0	11.1	11.9	13.0	16.3	22.5
Camping	0.1	0.1	0.1	0.1	0.1	0.1
Accom. Spending	41.3	47.3	49.4	52.8	58.1	64.9
Visitor Spending on Other Commodities (\$Million)						
Food & Beverage	38.4	41.6	43.3	44.3	46.4	50.5
Recreation	19.6	20.2	22.6	20.6	21.0	22.3
Gaming	25.3	27.0	27.7	26.6	25.7	26.9
Retail	17.4	18.2	18.5	18.6	18.7	19.5
Transportation	1.6	1.6	1.6	1.2	1.1	1.3
Commodity Spending	102.2	108.7	113.8	111.3	112.8	120.4
Visitor Spending on all Accomodations and Commodities (\$Million)						
Accomodations	41.3	47.3	49.4	52.8	58.1	64.9
Other Commodities	102.2	108.7	113.8	111.3	112.8	120.4
Total Spending	143.5	156.0	163.2	164.0	170.9	185.3

Note: Report details may not add to totals due to rounding

Source: Dean Runyan Associates

3. EARNINGS AND EMPLOYMENT

EARNINGS AND EMPLOYMENT IN WASHOE COUNTY NORTH SHORE LAKE TAHOE AREA

This section describes the findings on visitor-generated earnings and employment for the North Shore Lake Tahoe Area. Before these findings are presented, it is necessary to describe the North Shore Lake Tahoe Area economy in terms of the number and types of jobs present in the area, as well as the workforce that resides in North Shore Lake Tahoe and surrounding areas.

Because the North Shore Lake Tahoe region represents a portion of Washoe County, it has been necessary to derive an estimate of the earnings and employment in the area from several sources.⁷ The table below provides an estimate of the total employment and earnings within the North Shore Lake Tahoe Area. Two points are crucial to note in interpreting this table:

1. The employment and associated earnings are for “place of work” rather than “place of residence.” This means that the enterprise that employs individuals is located in the North Shore Lake Tahoe Area. The residence of the employees may or may not be the North Shore Lake Tahoe Area. In the case of construction and real estate employment, the actual work site may or may not be located within the North Shore Lake Tahoe Area, even though the establishment is formally located there.
2. The average employment numbers refer to all payroll jobs, proprietorships, general partnerships, and other employees, such as those receiving commissions. Payroll employment includes all full-time, part-time and seasonal jobs, regardless of the hours worked per week. Proprietors and partners are counted with reference to the enterprise, not the individual. An individual may be a partner in several enterprises, each of which would be counted as a partnership (employment).⁸

The estimates of total direct employment and earnings indicate that about one quarter of all jobs in the North Shore Lake Tahoe Area are found in leisure industries (accommodations, food services and recreation). We would expect that most of these jobs, including food services and recreation, are visitor related.⁹ Furthermore, we would expect that a substantial portion of retail employment would also be visitor related, as well as employment in real estate and other services related to the

⁷ Zip Code Business Patterns and Economic Census for covered employment (zip code area), BEA for relationship between payroll and total employment and earnings at the county level. Because recreation and accommodations are concentrated in North Shore Lake Tahoe, the county level BEA data is good approximation.

⁸ This explains the seemingly high employment for real estate. The individual that is the proprietor of multiple businesses would also be counted more than once in terms of total employment.

⁹ In urban areas, or areas that are not visitor destinations, the majority of employment in food services and recreation is not visitor related.

management of rental homes and condominiums. Thus, on the basis of these numbers alone, we would expect that about one-half of all employment in the North Lake Tahoe Area and the associated earnings are *directly* attributable to spending made by visitors. *(Note: The additional employment and earnings associated with the construction and vacation home real estate market is presented in Section 5).*

Zip Business Patterns for 89402 & 89451, Estimated Employment

Industry	Jobs
Construction	500
Education	400
Health care and social assistance	200
Financial Activities	260
Real estate and rental and leasing	290
Information	120
Manufacturing	40
Professional Services	900
Retail and Trade	320
Arts, entertainment, and recreation	310
Accommodation and food services	960
Other services (except public administration)	140
Total Payroll Employees	4,440

Source: Census Bureau, Dean Runyan Associates
Geography: Incline Village CDP, NV

EMPLOYMENT AND EARNINGS GENERATED BY TRAVEL SPENDING

The earnings and employment generated by visitor spending are shown in the table below. These findings (1,230 jobs and \$44 million in earnings for 2017) are consistent with the overall estimates of the North Shore Lake Tahoe Area economy and workforce, presented in the preceding discussion. Just as importantly, they provide an additional validity check on the spending and visitor volume estimates presented earlier.

Earnings & Employment Generated by Visitor Spending in Washoe County North Shore Lake Tahoe Area, 2012-2017

Direct Impacts Only

	2012	2013	2014	2015	2016	2017
Direct Earnings Generated by Visitor Spending (Millions)						
Accommodation & Food Services	\$26.8	\$28.7	\$30.0	\$31.2	\$32.6	\$34.0
Arts, Entertainment & Recreation	\$6.0	\$6.4	\$7.3	\$7.0	\$7.4	\$7.6
Retail & Misc. Services	\$2.4	\$2.5	\$2.6	\$2.5	\$2.5	\$2.5
Total Direct Earnings	\$35.2	\$37.6	\$39.9	\$40.8	\$42.5	\$44.0
Direct Employment Generated by Visitor Spending (Jobs)						
Accommodation & Food Services	790	840	850	870	890	910
Arts, Entertainment & Recreation	210	220	250	230	240	240
Retail & Misc. Services	90	90	90	90	80	80
Total Direct Employment	1,090	1,150	1,190	1,190	1,210	1,230
Average Annual Earnings per Employee (Thousands)						
Accommodation & Food Services	\$33.9	\$34.1	\$35.3	\$35.9	\$36.6	\$37.3
Arts, Entertainment & Recreation	\$28.6	\$29.0	\$29.4	\$30.4	\$30.8	\$31.5
Retail & Misc. Services	\$26.9	\$28.2	\$28.6	\$28.3	\$31.1	\$30.8
Total Average Annual Earnings	\$32.3	\$32.7	\$33.5	\$34.3	\$35.1	\$35.8

Note: Accommodation & Food Service employment includes employment for other paid lodging properties. Jobs include full and part time employment.

SECONDARY IMPACTS

The most comprehensive way to describe the economic benefits of an industry is to consider not only its direct impacts, but to also include a measure of the indirect or secondary impacts that accrue due to the impact of visitor-related businesses¹⁰.

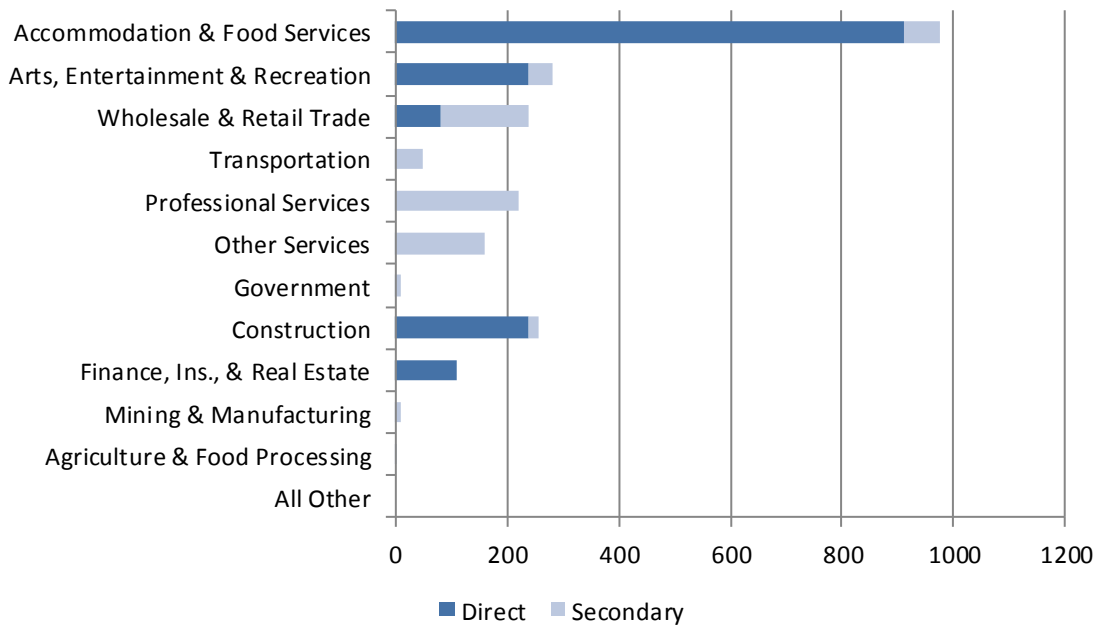
Travel spending within the North Shore Lake Tahoe Area brings money into communities within the area in the form of business receipts. Portions of these receipts are re-spent within the area for labor and supplies. Hotels, for example, may purchase maintenance services from independent contractors. Business proprietors and employees, in turn, spend a portion of their earnings on goods and services in the area. This re-spending of direct travel-related revenues creates secondary benefits also known as *indirect and induced impacts*.

Secondary impacts provide a picture of the magnitude and variety of business activity generated by travel spending in North Shore Lake Tahoe. Thus, the economic benefits of the travel industry spread throughout the economy of the Washoe County.

The following tables and charts illustrate the secondary effects of the North Shore Lake Tahoe Travel Industry. The direct travel impacts generate an additional 736 jobs and \$38.9 million in earnings.

¹⁰ These secondary impacts are sometimes referred to as the “multiplier effect.” The multiplier is the ratio of the total impacts to the direct impacts. Secondary impacts or multipliers will vary substantially among different economic regions. In general, larger and more diverse economies will have larger secondary impacts or multipliers because there will be less “leakage” of indirect and induced effects. See Appendix C for a description of the Implan methodology, including the use of workforce characteristics in the calculation of secondary impacts.

Direct and Secondary Travel Generated Employment Washoe County, 2017 (Jobs)



Source: Dean Runyan Associates and Minnesota Implan Group.

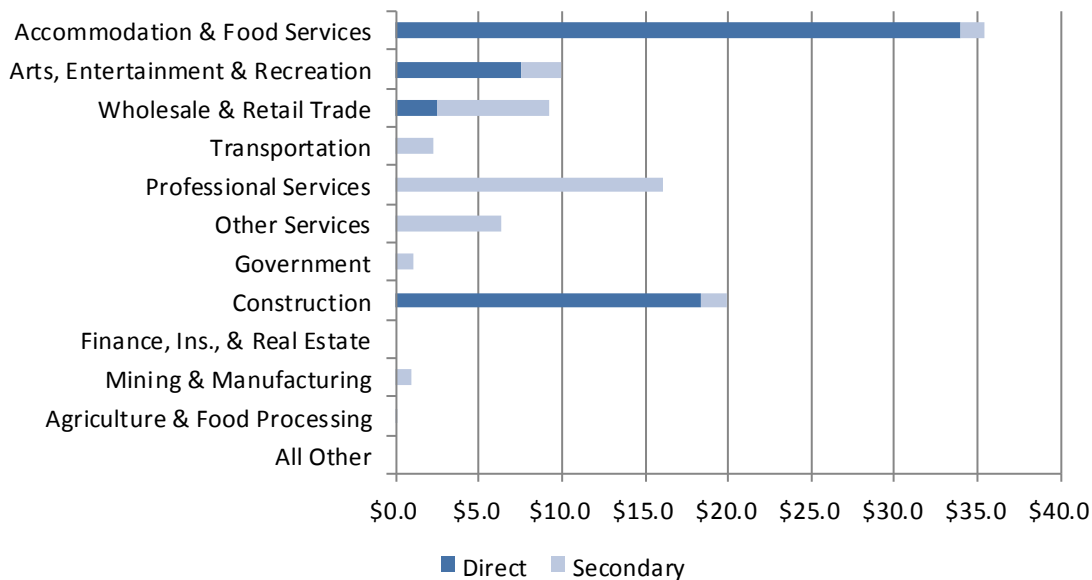
Note: Secondary Impacts include Indirect and Induced effects. Accommodation & Food Service includes the impact associated with other paid accommodations. Jobs include full and part-time employment.

Direct & Secondary Travel Generated Employment North Shore Lake Tahoe Area & Washoe County, 2017 (Jobs)

Industry	Direct	Indirect	Induced	Secondary	Total
Accommodation & Food Services	910	24	40	64	974
Arts, Entertainment & Recreation	240	26	16	43	283
Wholesale & Retail Trade	80	77	83	160	240
Transportation	0	28	21	49	49
Professional Services	0	90	130	220	220
Other Services	0	97	65	162	162
Government	0	7	3	10	10
Construction	240	13	5	17	257
Finance, Ins., & Real Estate	110	0	0	0	110
Mining & Manufacturing	0	8	2	11	11
Agriculture & Food Processing	0	0	0	1	1
All Other	0	0	0	0	0
All Industries	1,580	371	365	736	2,316

Source: Dean Runyan Associates and Minnesota Implan Group. Note: Secondary Impacts include Indirect and Induced effects. Accommodation & Food Service includes the impact associated with other paid accommodations. Construction and real estate employment related to travel was included in the direct jobs. Jobs include full and part-time employment.

Direct and Secondary Travel Generated Earnings Washoe County, 2017 (\$Millions)



Source: Dean Runyan Associates and Minnesota Implan Group.

Note: Secondary Impacts include Indirect and Induced effects. Accommodation & Food Service includes the impact associated with other paid accommodations

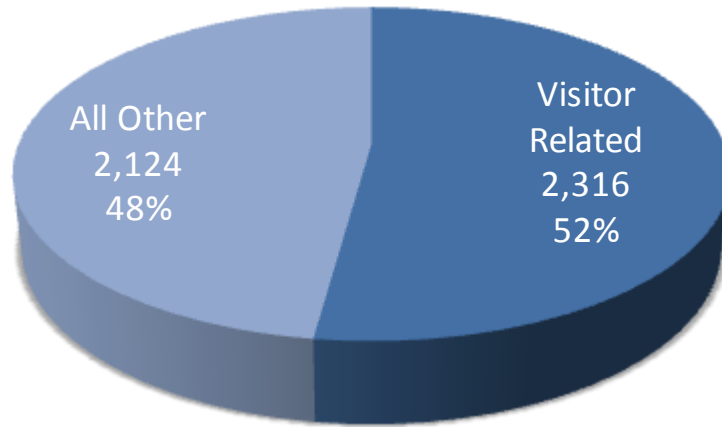
Direct & Secondary Travel Generated Earnings North Shore Lake Tahoe Area & Washoe County, 2017 (\$Millions)

Industry	Direct	Indirect	Induced	Secondary	Total
Accommodation & Food Services	\$34.0	\$0.6	\$0.9	\$1.5	\$35.5
Arts, Entertainment & Recreation	\$7.6	\$1.7	\$0.6	\$2.4	\$9.9
Wholesale & Retail Trade	\$2.5	\$3.2	\$3.5	\$6.8	\$9.2
Transportation	\$0.0	\$1.3	\$1.0	\$2.3	\$2.3
Professional Services	\$0.0	\$7.4	\$8.7	\$16.0	\$16.0
Other Services	\$0.0	\$3.8	\$2.5	\$6.4	\$6.4
Government	\$0.0	\$0.7	\$0.3	\$1.0	\$1.0
Construction	\$18.4	\$1.1	\$0.4	\$1.5	\$19.9
Finance, Ins., & Real Estate	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Mining & Manufacturing	\$0.0	\$0.7	\$0.2	\$1.0	\$1.0
Agriculture & Food Processing	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
All Other	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
All Industries	\$60.2	\$20.6	\$18.3	\$38.9	\$99.1

Source: Dean Runyan Associates and Minnesota Implan Group.

Note: Secondary Impacts include Indirect and Induced effects. Accommodation & Food Service includes the impact associated with other paid accommodations.

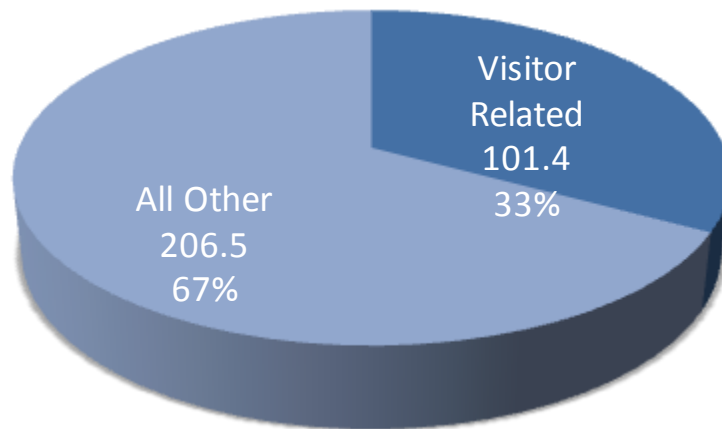
**Visitor-Related Share of Total Employment
North Lake Tahoe Area, 2017**



Total Employment: 4,440 Jobs

Source: Dean Runyan Associates, Census Bureau, Minnesota Implan Group

**Visitor-Related Share of Total Earnings
North Lake Tahoe Area, 2017**



Total Earnings: \$307.8 Million

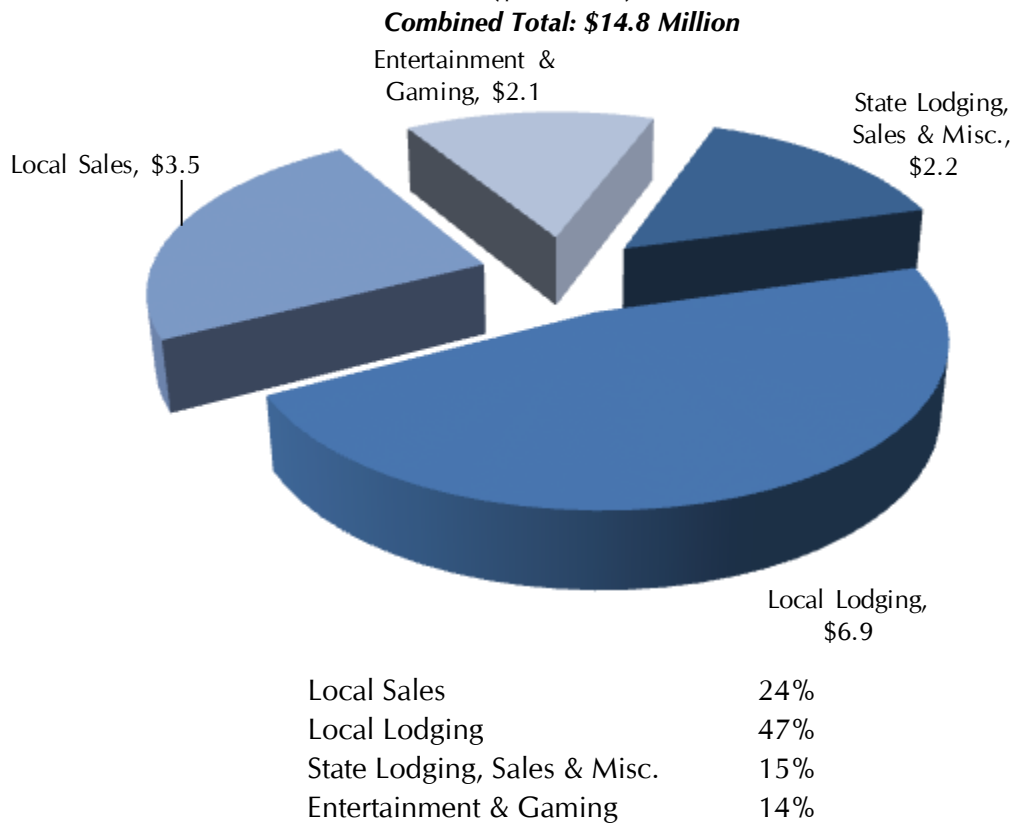
Source: Dean Runyan Associates, Census Bureau, Minnesota Implan Group

4. TAX IMPACTS

TAX RECEIPTS GENERATED BY TRAVEL SPENDING

Although residents of the surrounding region hold many of the jobs generated by visitor spending in the North Shore Lake Tahoe Area, most of the tax impacts remain in the area because about 9 out of 10 tax dollars generated by visitor spending are attributable to point of sale taxes. These tax impacts are shown in the following pie chart. Nearly three-quarters (71 percent) of all tax impacts generated by travel to the North Lake Tahoe Area accrues to local government in the form of transient occupancy taxes (TOT) and local sales taxes.

North Shore Lake Tahoe Area Visitor-Generated State and Local Tax Receipts, 2017 (\$ Millions)



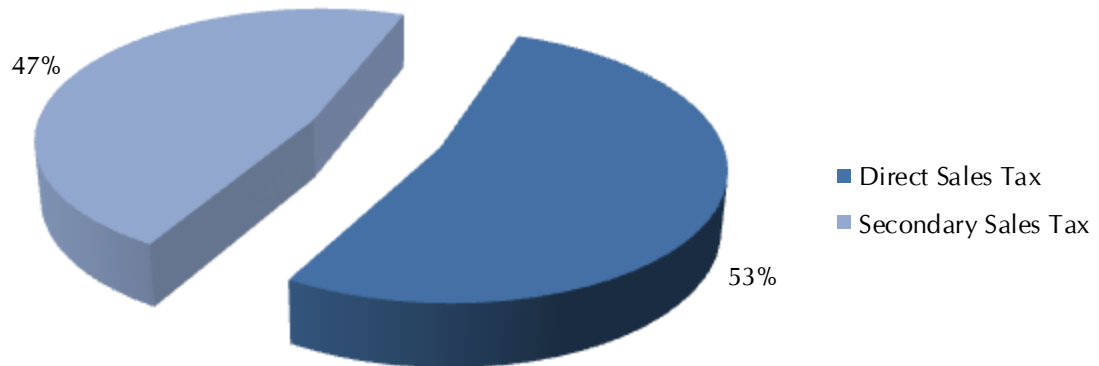
Source: Dean Runyan Associates

Note: Property taxes are not included. Miscellaneous includes modified business tax and motor fuel taxes

SECONDARY SALES TAX RECEIPTS

In addition to tax receipts generated directly from visitor spending, secondary sales taxes are generated by purchases of employees and business in Washoe County. These purchases generate additional state and local sales tax in the amount of \$4.2 million. Secondary sales tax impacts are about 47 percent of the total sales tax generated.

North Shore Lake Tahoe Area of Washoe County Total Sales Tax Receipts, 2017



Direct Sales Tax	\$4.7
Secondary Sales Tax	\$4.2
Total Sales Tax Generated	\$9.0

Source: Dean Runyan Associates and Minnesota Implan Group

5. CONSTRUCTION AND REAL ESTATE

Segments of construction and real estate employment in the North Shore Lake Tahoe Area can also be attributed to visitors, to the extent that such activity is related to the construction, maintenance or sale of vacation home property. Estimates of visitor-generated construction and real estate activity are less straightforward, and ultimately less precise, than estimates of direct and secondary visitor spending made in the preceding section. There are two principle reasons for this distinction.

First, expenditures on visitor-related construction activities are related to anticipated visitation and expenditures made by visitors in a future time period. In the case of vacation homes by private owners, construction expenditures are investments predicated on expectations of visitor activity at a later and extended period of time. The same is true with regard to the sale of vacation home property. Therefore, it is analytically useful to distinguish visitor-related construction and real estate from the other type of visitor-related impacts discussed.

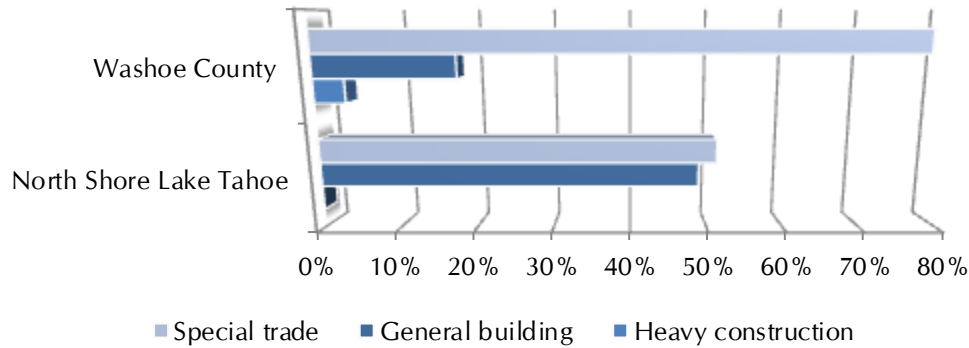
Second, there is generally more “out-of-area” activity associated with the employment for construction and real estate than on visitor expenditures made for accommodations, food service and recreation. Likewise, real estate brokers and agents in the North Shore Lake Tahoe Area may service vacation home property outside of Incline Village or Crystal Bay. It is also important to consider, particularly with regard to large development projects, that construction activity in the North Shore Lake Tahoe Area may generate employment and earnings for firms from outside the area.

Construction

Construction employment in the North Shore Lake Tahoe Area represents 3.7 percent of all construction in Washoe County. The following bar chart illustrates the overall pattern in payroll employment for construction businesses in the North Shore Lake Tahoe Area, which is proportionally almost equal between general building contractors, and special trades. Furthermore, as compared to all of Washoe County, general building contractors in the North Lake Tahoe Area comprise nearly twice as large a proportion of payroll employment. This is probably due to the relatively high number of residential structures (both owner-occupied and vacation homes) relative to other commercial and industrial structures in the North Shore Lake Tahoe Area.

Characteristics of Construction Employment

North Lake Tahoe Area, 2016



Source: Derived from U.S. Census Bureau County Business Patterns by Dean Runyan Associates

As shown in the table below, an examination of the mix of single-family, condominium, and timeshare housing units in the North Shore Lake Tahoe Area shows about 42 percent are not owner-occupied and serve as vacation homes, short-term rental properties, and for sale properties. These North Shore Lake Tahoe Area properties provide an ongoing source for construction employment as maintenance and improvements are made to entire stock of housing.

Visitor Industry Activity

Washoe County North Shore Lake Tahoe Area

Single-Family Residential, Condominium, and Timeshare Housing Units, 2017

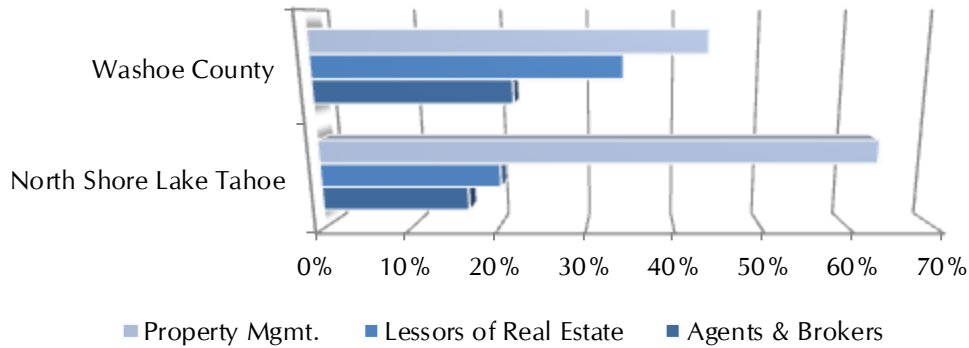
Location	Owner-Occupied	Short Term Rentals	Vacant Units	Total Units	Percent Vacancy
North Lake Tahoe	4524	468	2808	7800	36%

Source: Dean Runyan Associates using Incline Village General Improvement District

Real Estate

As shown in the following bar chart, payroll employment for real estate establishments in the North Shore Lake Tahoe Area is mostly oriented toward property management and the leasing of property. As compared to all of Washoe County, property management comprise about a third larger proportion of total real estate payroll employment.

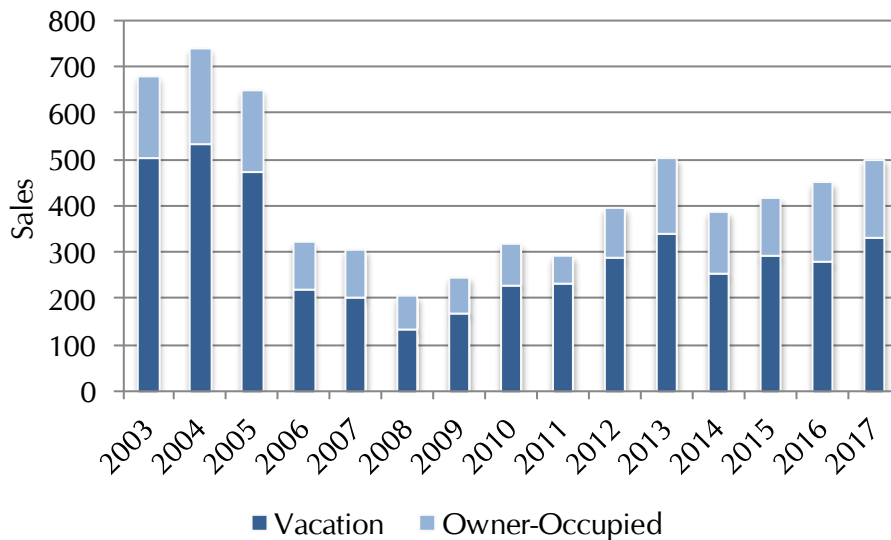
Characteristics of Real Estate Employment Washoe County North Shore Lake Tahoe Area, 2016



Source: Derived from U.S. Census Bureau County Business Patterns by Dean Runyan Associates

As shown below, about 500 single-family, and condominium units were sold in the North Shore Lake Tahoe Area in 2017, an increase of about 11 percent from the previous year. Vacation is represented as non-owner occupied sales.

Annual New and Resale Real Estate Transfers North Lake Tahoe Area, 2003-2017 (Owner Occupied & Vacation)



Source: Dean Runyan Associates using CoreLogic

Note: Based on selected zip codes for the North Shore Lake Tahoe Area

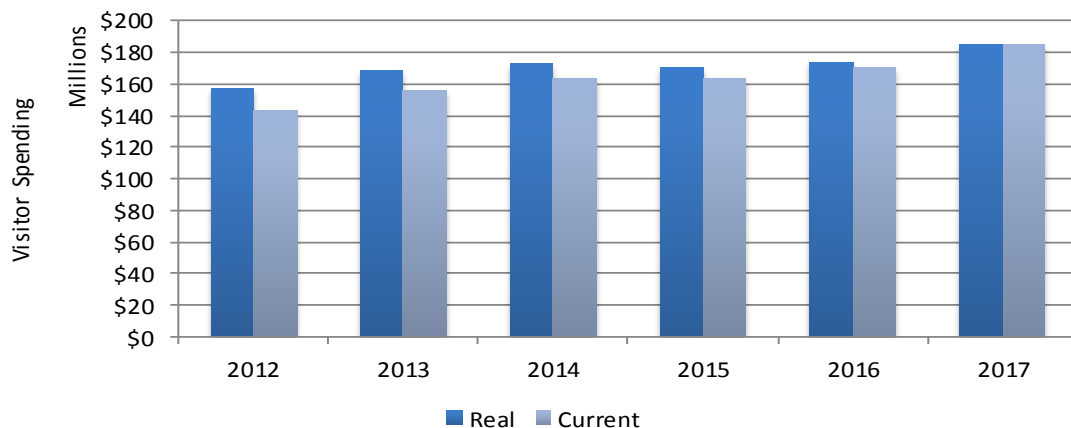
6. VISITOR IMPACT OVERVIEW

The Economic Significance of Travel to the Washoe County North Shore Lake Tahoe Area: Detailed Visitor Impact Estimates, 2012-2017 describes the economic impacts associated with all visitor spending in the North Shore Lake Tahoe Area of Washoe County. As shown below, *direct* travel-generated impacts accounts for \$187 million in visitor spending, providing 1,230 jobs with earnings of \$44 million made by employees and business owners throughout the North Shore Lake Tahoe Area.

Washoe County North Shore Lake Tahoe Travel Impacts Summary Trend, 2012-2017

	Visitor Spending (\$Millions)	Earnings (\$Millions)	Employment (Jobs)	Local Tax (\$Millions)	State Tax (\$Millions)	Loc. & St. Tax (\$Millions)
2012	143.5	35.2	1,090	7.1	3.6	10.7
2013	156.0	37.6	1,150	8.0	3.9	11.9
2014	163.2	39.9	1,190	8.3	4.0	12.3
2015	164.0	40.8	1,190	8.7	4.0	12.7
2016	170.9	42.5	1,210	9.4	4.0	13.4
2017	185.3	44.0	1,230	10.5	4.3	14.8
<i>Annual Percentage Chg.</i>						
16-17	8.5%	3.5%	1.7%	11.9%	6.8%	10.4%
12-17	5.3%	4.5%	2.4%	8.1%	3.6%	6.7%

Total Visitor Spending in North Shore Lake Tahoe Area, 2012-2017



Note: Real dollars refers to visitor spending adjusted for inflation.
Source: Dean Runyan Associates

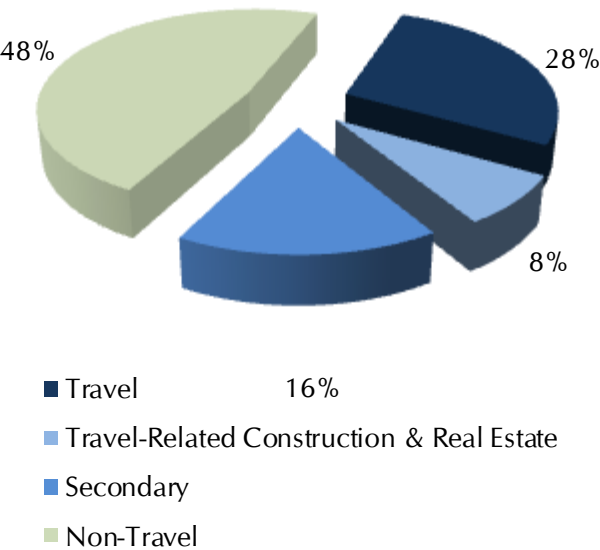
The following table and pie charts provide an overview of all the visitor-generated economic impacts for the North Shore Lake Tahoe Area.

**Washoe County North Shore Lake Tahoe Area
Direct Travel Impacts, 2012-2017**

	2012	2013	2014	2015	2016	2017
Visitor Spending by Accommodation (\$Million)						
Hotel/Motel	89.0	98.4	103.1	102.6	102.1	101.7
STVR	22.8	25.4	27.1	28.6	35.6	49.4
Unpaid Accom.	24.9	25.0	25.7	25.6	25.8	26.3
Campground	0.5	0.6	0.4	0.4	0.4	0.4
<i>Overnight</i>	<i>137.2</i>	<i>149.3</i>	<i>156.4</i>	<i>157.2</i>	<i>163.9</i>	<i>177.8</i>
Day	6.3	6.6	6.9	6.8	7.0	7.5
Total Spending	143.5	156.0	163.2	164.0	170.9	185.3
Visitor Spending by Commodity (\$Million)						
Accommodations	41.3	47.3	49.4	52.8	58.1	64.9
Food & Beverage	38.4	41.6	43.3	44.3	46.4	50.5
Recreation	19.6	20.2	22.6	20.6	21.0	22.3
Gaming	25.3	27.0	27.7	26.6	25.7	26.9
Retail	17.4	18.2	18.5	18.6	18.7	19.5
Transportation	1.6	1.6	1.6	1.2	1.1	1.3
Total Spending	143.5	156.0	163.2	164.0	170.9	185.3
Direct Travel Generated Earnings by Industry (\$Million)						
Accommodation & Food Services	26.8	28.7	30.0	31.2	32.6	34.0
Arts, Entertainment & Recreation	6.0	6.4	7.3	7.0	7.4	7.6
Retail & Misc. Services	2.4	2.5	2.6	2.5	2.5	2.5
Total Direct Earnings	35.2	37.6	39.9	40.8	42.5	44.0
Direct Travel Generated Employment by Industry (Jobs)						
Accommodation & Food Services	790	840	850	870	890	910
Arts, Entertainment & Recreation	210	220	250	230	240	240
Retail & Misc. Services	90	90	90	90	80	80
Total Direct Employment	1,090	1,150	1,190	1,190	1,210	1,230
Direct Travel Generated Tax Receipts (\$Million)						
Local Tax Receipts	7.1	8.0	8.3	8.7	9.4	10.5
State Tax Receipts	3.6	3.9	4.0	4.0	4.0	4.3
Total Local & State Tax Receipts	10.7	11.9	12.3	12.7	13.4	14.8

Source: Dean Runyan Associates

**Direct Travel-Related Share of Total Employment
North Shore Lake Tahoe Area, 2017**



Travel	1,230
Travel-Related Construction & Real Estate	350
Secondary	736
Non-Travel	2,124
Total*	4,440

Source: Dean Runyan Associates and Census Bureau
*Total Employment is estimated based on Zip Business Patterns employer size classifier.

APPENDICES

- APPENDIX A. REGIONAL TRAVEL IMPACT MODEL (RTIM) METHODOLOGY*
APPENDIX B. IMPLAN MODELING SYSTEM

Summary of Regional Travel Impact Model (RTIM) Methods

TRAVEL SPENDING

Hotel, Motel Spending on accommodations by hotel and motel guests is estimated from Transient Occupancy Tax (TOT) collections made by Washoe County. Spending by hotel and motel guests in other business categories, such as food and transportation, is estimated using spending distributions reported in the visitor survey data. The spending distribution shows how travelers divide their spending between lodging and other purchases.

STVR – Short Term Vacation Rental.

Spending by STVR guests is also estimated from Transient Occupancy Tax (TOT) collections, which are collected on the rental of condominiums or privately owned homes for rental periods of less than thirty days.

Vacation Home. Vacation home visitation and expenditures are estimated from an inventory of vacation homes (housing data from the U.S. Bureau of the Census) and survey data for expenditures.

Unpaid Accommodations. Spending by private home guests is determined from visitor survey data estimating the number of visitors staying as guests of friends and relatives, and applying these rates to the household

population base. Owned vacation homes are also included. See prior definition.

Campgrounds. Spending by campers is estimated from the visitor counts at Nevada State Parks and federally managed national forests, as well as a number of commercial campsites. The average occupancy of these campsites and daily expenditures of visitor camp parties is estimated from state sources and survey data.

Day Travel. The share of day visits as a percentage of total travel is estimated from visitor survey data and applied to average daily spending estimates to produce day visitor spending.

Related Travel Impacts

Spending by travelers generates jobs, earnings, tax revenues.

Total Earnings generated directly from traveler expenditures are estimated from the payroll-to-receipts ratio obtained from the 2012 Economic Census for the State of Nevada, and earnings estimates from the Bureau of Economic Analysis.

Employment in each business category is calculated from wage and employment data supplied by the Census Bureau, and earnings estimates from the Bureau of Economic Analysis.

Local Taxes consist of transient occupancy taxes and local sales taxes applicable to traveler purchases in eating and drinking establishments and retail stores.

State Taxes consist of state sales taxes applied to traveler spending on accommodations, retail shopping, restaurant meals, entertainment, the state fuel tax levied on motor fuel purchases.

IMPLAN Modeling System

IMPLAN is a widely used, nationally recognized economic impact model, first developed by the U.S. Forest Service. IMPLAN can be used to measure the direct and indirect impacts associated with economic changes in a particular region or local area. This methodology has been packaged, along with the necessary data files, as IMPLAN Pro by the Minnesota IMPLAN Group, Inc. (MIG) of Stillwater, Minnesota, and provides the basis for the indirect analysis in this report.

The following are some of the conventions used by IMPLAN.

- **Direct** impacts represent the employment and earnings attributable to travel expenditures made directly by travelers at businesses throughout the North Lake Tahoe Area.
- **Indirect** impacts represent the employment and earnings associated with industries that supply goods and services to the businesses that directly serve visitors (i.e., those that receive money directly from visitors throughout the area).
- **Induced** impacts represent the employment and earnings that result from purchases for food, housing, transportation, recreation, and other goods and services made by travel industry employees, and the employees of the indirectly affected industries.

Database Components

The IMPLAN databases consist of two major parts: 1) national-level matrices and tables and 2) economic and physical data at the county and/or state level. The national matrices are combined with regional data to create a regional model, which can be edited to reflect local conditions.

IMPLAN data is divided into four main categories:

1. Industry Output
2. Employment
3. Value Added (includes employee compensation)
4. Final Demands

Industry output represents the dollar value (producer price of goods and services) of an industry's total production. The data is derived from a number of sources including Bureau of Census economic censuses and the BLS employment projections.

Employment is listed as a single number of jobs for each industry. The data is derived from ES202 employment security data supplemented by county business patterns and Regional Economic Information System (REIS) data. All IMPLAN databases include both full-time and part-time workers in employment estimates.

Value Added includes employee compensation, proprietor income, other property type income, and indirect business taxes. Employee compensation includes the total payroll costs (including benefits) of each industry in the region. Proprietary income consists of payments received by self-employed individuals (includes private business owners, doctors and lawyers). Other property type income consists of payments from rents, royalties, dividends and interest. Indirect business taxes consist primarily of excise and sales taxes paid by individuals to businesses.

Final Demands are the dollar value of goods and services purchased by consumers and institutions (federal, state and local government). Personal consumption expenditures are the largest component of final demand. It consists of payments by individuals/households to industries for goods and services used for personal consumption.

Trade Flows

Trade flows describe the movement of goods and services between a defined region and the outside world (imports and exports into and out of the study region). Regional Purchase Coefficients (RPC's) were used to estimate how much of the local production of a commodity will supply local demand, and how much will be exported from the region. RPC's represent the portion of local demand purchased from local producers for each commodity. IMPLAN software automatically generates RPC's for each commodity with a set of econometrically-based equations.

Indirect Impacts

Input-output models are driven by final consumption (or final demand). Industries respond to meet demands directly or indirectly (by supplying goods and services to industries responding directly). Each industry that produces goods and services generates demands for other goods and services. These other producers, in turn, purchase goods and services. These indirect purchases (indirect effects) continue until "leakage" from the region (imports, wages, profits, etc.) stop the cycle.