

# OXNARD AIRPORT ECONOMIC BENEFIT ANALYSIS

*Prepared for*

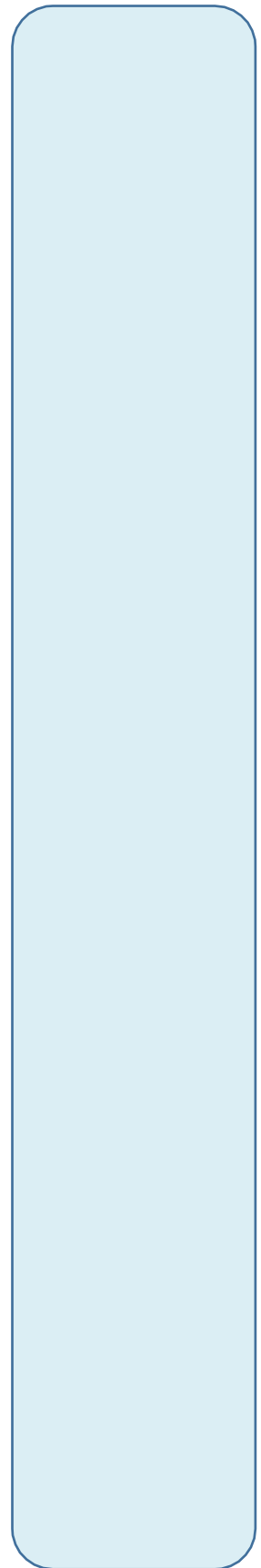


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## INTRODUCTION

This report presents an analysis of economic benefits created by Oxnard Airport (OXR), a general aviation airport in Ventura County, California. The airport is owned by Ventura County, and is located one mile west of downtown Oxnard and two miles east of Harbor Boulevard, a north-south roadway offering access to coastal beaches, historical sites, shopping malls, golfing, and the Ventura Pier.

The airport property encompasses 230 acres, with one runway of 5,953 feet. Approaching and departing aircraft are served by Oxnard Tower between 0700-2100 hours.

Oxnard Airport is home to 140 based aircraft. Eighty percent of these (114) are single engine (**Table 1**). There are 114 single engine aircraft, 17 multi-engine, 9 based helicopters, and no jets. During the decade 1981-1990, based aircraft averaged 238, according to historical data in the FAA *Terminal Area Forecast*. In 1991 - 2000 the average fell to 173, and in the subsequent decade (2001 - 2010) the average fell again to 157 based aircraft.

Scheduled passenger service is not currently available, although the airport has an extensive history of diverse commercial service providers starting with Southwest Airways in 1946. According to FAA enplanement records, peak passenger activity was in 1991 with 64,061 enplanements. Scheduled service ended in June 2010. In calendar year 2009, the final full year of commercial service, there were 13,041 enplanements.

When it was offering passenger service, Oxnard Airport was classified as a primary commercial service airport (meeting the requirement of more than 10,000 annual enplanements). The airport is now a regional general aviation airport averaging 72,000 operations over the past 5 years.

Oxnard Airport operations (take-offs or landings) from 2005 - 2018 are shown in **Table 2**. Peak total operations (101,862) for the past two decades were recorded in 2005. Total operations for 2018 were 73,798, a 28 percent decrease from the 2005 high. Total operations are made up of local operations (flights that remain in the airport traffic pattern, for training and practice) and itinerant operations.



**TABLE 1 | Based Aircraft**

Type	Based Aircraft
Single Engine	114
Multi Engine	17
Jet	0
Helicopter	9
<b>Total</b>	<b>140</b>

Source: Department of Airports

**TABLE 2 | Aircraft Operations**

Year	Itinerant Operations				Local	Total
	Air Carrier	Air Taxi	GA	Total Itinerant*		
2005	0	10,456	49,979	61,675	40,187	101,862
2006	0	7,355	44,916	53,344	33,048	86,392
2007	0	6,586	25,025	31,970	36,947	76,426
2008	39	5,986	14,263	20,353	44,273	83,988
2009	0	5,222	26,201	31,538	29,864	61,402
2010	5	4,292	24,511	28,896	26,421	55,317
2011	14	3,620	24,957	28,789	27,996	56,785
2012	0	4,079	24,233	28,481	26,130	54,611
2013	8	5,498	23,846	29,570	29,925	59,495
2014	0	6,047	27,233	33,498	37,730	71,228
2015	1	5,397	28,371	33,947	40,798	74,745
2016	0	4,953	28,263	33,400	40,751	74,151
2017	0	4,629	25,366	30,182	36,750	66,932
2018	0	4,898	28,113	33,164	40,634	73,798

\*Itinerant operations total includes an average of less than 1 military operation per day.

Itinerant operations (aircraft arrivals from outside the airport area, or departing and leaving the airport area) are particularly relevant for economic benefit analysis, since itinerant aircraft represent potential visitors to the region as well as sales and revenues to FBO firms and other on-site businesses. Itinerant air taxi operations include various non-scheduled charter, cargo, and “work” flights (such as agriculture or photography) as well as scheduled commuter flights involving aircraft with 60 or fewer seats. The few air carrier operations in the table refer to aircraft with more than 60 seats. General aviation (GA) operations represent the private transport component of civil aviation, including corporate aircraft, private business travel, tourism, recreation, and all types of personal travel, not for hire.

The year 2008 in the table is particularly notable as the first full year of the recession that began at the end of 2008 and continued through the second quarter of 2009. The year 2008 was also the year of the previous economic benefit study completed for Oxnard Airport. The demise of commercial service after 2010 reduced air taxi activity to a low point of 3,620 in 2011. Meanwhile, the severity of the recession’s impact on business and private general aviation caused GA operations to decline from a high of 49,979 in 2005 to less than half this figure (23,846) in 2013. Itinerant general aviation operations have averaged 27,469 over the most recent five years and were 28,113 in 2018.

## **MEASURING ECONOMIC BENEFITS**

Airports bring many benefits that extend beyond the aviation community to impact economic growth and development as well as the quality of life of residents. The availability of air transport

is invariably listed by business executives as a key criterion for business location and expansion. Airports contribute to public safety by supporting police operations, firefighting teams, and border security. Private aviation firms provide medical transport and assist businesses with mapping, aerial photography, and transport to reach customers quickly and efficiently.

Although qualitative advantages created by an airport are important, they are also challenging to measure. In studying the economic benefits of airports and aviation, analysts have emphasized economic benefits that can be quantified:

- **Employment** is the number of jobs supported by economic activity created by the presence of the airport.
- **Payroll** includes income to workers as employee compensation (the dollar value of payments received by workers as wages and benefits) and proprietor's income to business owners.
- **Output** is the value of the production of private firms and public agencies. For a private firm, output is equal to the annual value of revenue or gross sales at producer prices (before addition of further margins or transportation costs), including sales or excise taxes. Output, revenue, and sales are interchangeable, synonymous terms used throughout this study and, in turn, these are equal to spending or expenditures from the perspective of the buyer. For government units, the agency budget is used as the measure of output.

Economic benefit studies differ from cost-benefit analyses, which are often used to support a "go-no go" decision to undertake a proposed project. Analysis of economic benefits is related to measurement of the economic contribution of an industry or a particular component of the economy. This methodology was standardized in the publication by the Federal Aviation Administration, *Estimating the Regional Economic Significance of Airports*, Washington DC, 1992, and has been closely followed in recent years by public and private sector aviation analysts. Consistent with the FAA methodology, this study views Oxnard Airport as a source of measurable benefits that impacts Oxnard and Ventura County. Aviation activity creates revenues for firms, and employment and income for workers on and off the airport.

On-airport activity by private aviation related firms and government agencies located on the airport is a source of output, jobs, and worker payrolls. Business spending on the airport injects revenues into the community when firms and public sector agencies buy products from local and regional suppliers, and again when employees of the airport buy goods and services in their communities.

Included in on-airport economic benefits are capital improvement projects that provide for growth and enhance air safety, as well as expenditures by tenants for modernization or expansion of existing space and facilities.

Off-airport spending by visitors that arrive by itinerant general aviation aircraft is a second source of economic benefits. Air visitor spending creates jobs, income, and revenues in the region's lodging, food service, ground transportation, retail, and recreation industries.

### DIRECT, SECONDARY, AND TOTAL ECONOMIC BENEFITS

Economic activity (such as fuel purchased by an aircraft pilot) creates an initial economic impact or direct benefit when the purchase is made. The spending by the pilot provides revenue to the Fixed Base Operator, a portion of which is retained as margin and the remainder is used for payments to suppliers or to pay salaries to workers (who then spend their wages in their home communities). As payments are received by suppliers or spent by workers, the initial direct spending from the fuel purchase recirculates in the economy, thus bringing secondary benefits known as multiplier or "ripple effects," as illustrated in **Figure A**. These combined direct and secondary benefits added together provide a measure of total economic benefits.



FIGURE A: DIRECT, SECONDARY AND TOTAL ECONOMIC BENEFITS

The characteristics and components of direct and secondary benefits are explained below in further detail.

- **Total economic benefits** are the combined sum of direct and secondary benefits created both on and off the airport.
- **Direct benefits** measure the initial output, employment, and payroll when businesses and agencies on the airport generate sales and revenues, hire workers, and make payments to employees. Off-airport direct benefits result when visitors that arrive by air spend for goods and services including lodging, restaurants, auto rental, retail items, or recreational activities. The on-airport direct benefits are tabulated by obtaining data on revenues received by airport employers, the number of workers, and compensation paid. Air visitor direct spending benefits are based on the number of visitors and their outlays for goods and services. These initial direct benefit figures are the "inputs" to an input-output model to estimate secondary benefits.

- **Secondary benefits** are created when the initial spending at system airports or by visitors circulates and recycles through the economy. The secondary benefits measure the magnitude of successive rounds of re-spending in the broader regional economy.

There are two types of secondary benefits:

- **Indirect benefits** include activity by suppliers and vendors who sell to airport or hospitality businesses, along with the jobs created and incomes paid to workers by these suppliers. For example, businesses and agencies on the airport purchase services such as insurance and hard goods (like tools or office furniture) from off-airport providers. The revenues to suppliers, the jobs supported, and the wages paid, are all indirect benefits.
- **Induced benefits** measure the consumer spending of workers who produced both the direct or indirect goods and services. For example, when an aircraft technician's salary is spent for consumer goods like groceries or medical services, this contributes to additional employment and income in the general economy for providers of these goods and services.

Economic benefit studies rely on multiplier factors from input-output models to estimate how direct spending on the goods and services of a particular industry or set of industries creates secondary indirect and induced benefits or multiplier effects. An input-output model incorporates inter-industry or "supply chain" relationships within the region that account for changes in employment, payroll, and output in related industries set off by a change in demand in an initial industry.

The input-output model used for this study was the IMPLAN model, based on data and coefficients for the Ventura County economy from the U. S. Bureau of Economic Analysis. This model is frequently used for studying the economic benefits of airports and aviation across the nation, as well as economic impacts associated with changes in regional economies, such as the closing of a military base or construction of a major sports venue. Because the airport is an existing facility, the current IMPLAN application should be viewed as a contribution study, analyzing the benefits the airport creates annually for the local economy. The time studied is calendar year 2018 and figures are expressed in 2018 dollars.

### ***ECONOMIC BENEFIT HIGHLIGHTS***

Oxnard Airport created total 2018 economic benefits of \$51.3 million of output, 310 total jobs supported, and payrolls for workers of \$19.8 million (**Figure B**). The total benefits include both direct and secondary benefits, measuring the airport's overall contribution to the regional economy.



FIGURE B: OXNARD AIRPORT TOTAL ECONOMIC BENEFITS

Highlights of the economic benefits of Oxnard Airport include the following:

- The OXR direct on-airport economic benefits resulted from the activity of 10 private tenants, two public/contract agencies, and capital improvement projects. Direct on-airport output was \$25.8 million, with payroll to the 125 on-airport workers of \$10.3 million.
- The average compensation (including benefits) of workers on the airport was \$82,736. The U.S. Bureau of Economic Analysis reports the average compensation for all of Ventura County was \$72,471 (adjusted to 2018 by CPI). On-airport compensation was more than 10% greater than the average job in the area.
- The direct economic benefit of air visitors to Oxnard Airport in 2018 brought an injection of \$2.1 million of visitor spending into the economy, creating employment for 18 workers in the hospitality industry, with payroll of \$579,000.
- The combined direct benefits of on-airport and visitor activity totaled \$27.9 million, 143 direct jobs created, and payroll of \$10.9 million. The combined secondary benefits, computed through IMPLAN, created an additional \$23.3 million of revenues, jobs for 167 additional workers, and payroll of \$8.9 million as the initial spending recycled through the region.
- Secondary benefits computed through the input-output model include purchases from vendors and suppliers and jobs created (“indirect benefits”). Employers on both the airport and in the hospitality industry purchased output from Ventura County suppliers of \$9.7 million, creating 71 jobs and \$4.0 million payroll.
- An additional secondary benefit includes the effect of consumer expenditures in home communities by all employees associated with airport activity (“induced benefits”). Worker spending generated \$13.6 million of output, supporting 96 jobs and \$4.9 million in payrolls in the airport service area.

Economic benefits of Oxnard Airport by source are shown in **Table 3**. Comparison of total benefits with the initial direct benefits provides insight into the multiplier process that causes benefits due to the presence of the airport to be distributed across the regional economy. For example,



the 143 combined direct on-airport and air visitor jobs supported total employment of 310, a multiple of 2.2. The economic interpretation is that, on average, each direct job supported an additional 1.2 jobs in the general economy. Similarly, each million dollars of direct output is associated with additional secondary output of \$836,000, derived from calculation of the ratio of total output (\$51,271,000) to direct output (\$27,931,000) of 1.836. Multipliers vary by industry and geographical location. For this study, multipliers specific to Ventura County industries from the IMPLAN model were applied.

**TABLE 3 | Economic Benefits Summary**

SOURCE	EMPLOYMENT	PAYROLL	OUTPUT
<b>Direct Economic Benefits</b>			
On-Airport Benefits: Private Firms, Government Agencies, Capital Improvement Projects	125	\$10,342,000	\$25,806,000
Air Visitor Benefits: Activity by General Aviation Travelers	18	\$579,000	\$2,125,000
<b>Direct Benefits</b>	<b>143</b>	<b>\$10,921,000</b>	<b>\$27,931,000</b>
<b>Secondary Economic Benefits</b>			
Indirect Benefits: Activity by Suppliers & Vendors	71	\$4,054,000	\$9,702,000
Induced Benefits: Activity by Employees as Consumers	96	\$4,875,000	\$13,638,000
<b>Secondary Benefits</b>	<b>167</b>	<b>\$8,929,000</b>	<b>\$23,340,000</b>
<b>Total Benefits</b>	<b>310</b>	<b>\$19,850,000</b>	<b>\$51,271,000</b>

Sources: On-airport employment information obtained through on-site tenant interviews. Output estimates computed from the IMPLAN input-output model, with coefficients for Ventura County. General Aviation operations from FAA and FlightAware data system. Air visitor spending estimates from Ventura Visitors and Convention Bureau. Secondary benefits (indirect and induced) computed from the IMPLAN model. All values are in 2018 dollars.

## A DAY AT OXNARD AIRPORT

Airports are available to serve the flying public and support the economy every day of the year. The Oxnard Airport is a “24/7” source of revenues, employment, and income for the service area economy. During an average day in 2018, the airport generated \$140,000 of total economic benefits (including secondary or multiplier benefits) and supported 310 workers bringing home daily income of \$54,000 for spending in their home communities (Table 4).

**TABLE 4 | Economic Benefits for an Average Day**

Activity	Average Day
All Aircraft Operations	202 Daily Aircraft Operations
On-Airport Employment	125 Workers on the Airport
On-Airport Payrolls	\$28,000 Paid to Airport Workers
General Aviation Air Visitors	45 Air Visitors in the Area Daily*
Air Visitor Spending	\$9,000 Daily Visitor Spending
Total Employment	310 Total Area Jobs Supported
Total Payrolls	\$54,000 Paid to Area Workers
Total Economic Benefits	\$140,000 Daily Economic Benefits

\*Includes overnight visitors as well as those who remained for only part of a day

The airport supports commerce in the Oxnard area, allowing swift and efficient delivery of cargo and access for 140 based aircraft to travel throughout Southern California, the western states, and the nation. The airport provides aviation training and aircraft rental options for groups or individuals who may not currently own an aircraft. Non-aviation businesses such as real estate firms often rely on aerial photography of site locations and property not immediately accessible by ground travel. Day or night, during times of need, the airport supports fire control, public safety, and traffic management to improve public security and well-being.

On an average day at the airport, there are more than 200 operations by aircraft involved in local or itinerant activity including touch-and-go operations, corporate travel on business jets, or private general aviation flights bringing passengers visiting the area for personal travel or on business. On an average day in 2018, 45 air visitors were in the area spending for lodging, food and drink, retail goods and services, recreation, and ground transportation. Visitor spending injected \$9,000 per day into the regional economy. In 2018 the airport provided employment for 125 workers, bringing home \$28,000 per day for spending in their home communities for consumer goods and services.

### **ON-AIRPORT ECONOMIC BENEFITS**

Economic benefits on the airport flow from the employment, payroll, and output created by the private firms and public agencies located on the airport, as well as capital improvement projects undertaken by private contractors that come onto the airport.

Information about employers on the airport was obtained through surveys and interviews with managers conducted at mid-year 2018. Final follow-up tallies were completed over the following weeks. Survey participants were informed that the individual employer results were confidential and only aggregate totals would appear in the written report.



The County of Ventura Department of Airports provided substantial data and collaboration in support of this study. Department staff shared records, facilitated on-site interviews with business owners and managers, and provided specialized knowledge regarding airport operations.

For the year 2018, the 12 employers on the airport reported 125 employees (**Table 5**). This tally included two government/contract agencies with 14 employees and 10 private firms with 110 employees. Government units include Oxnard Airport staff and the contract Air Traffic Control Tower. Seventy percent of on-airport jobs are in the private sector.

**TABLE 5 | On-Airport Economic Benefits**

SOURCE	EMPLOYMENT	PAYROLL	OUTPUT
<b>Direct Economic Benefits</b>			
Private Aviation Employers (10 Firms)	110	\$8,615,000	\$21,819,000
Government Aviation Employers (2 Public Agencies)	14	\$1,659,000	\$3,771,000
Capital Improvement Projects (Four Year Average Value)	1	\$68,000	\$216,000
<b>Direct Benefits</b>	<b>125</b>	<b>\$10,342,000</b>	<b>\$25,806,000</b>
<b>Secondary Economic Benefits</b>			
Indirect Benefits: <i>Activity by Suppliers &amp; Vendors</i>	67	\$3,875,000	\$9,236,000
Induced Benefits: <i>Activity by Workers as Consumers</i>	90	\$4,538,000	\$12,758,000
<b>Secondary Benefits</b>	<b>157</b>	<b>\$8,413,000</b>	<b>\$21,994,000</b>
<b>Total Benefits</b>	<b>282</b>	<b>\$18,755,000</b>	<b>\$47,800,000</b>

*Source: On-airport employment was obtained through on-site interviews and records maintained by Department of Airports administrative staff. Payroll figures based on Ventura County wage data from U. S. Bureau of Labor Statistics Quarterly Census of Employment and Wages. Output estimates were computed from the IMPLAN input-output model, with coefficients for Ventura County. Values are in 2018 dollars.*

Oxnard Airport offers full FBO services such as fueling, inspections, maintenance, and executive charter, along with specialized helicopter services including charter for aerial survey work, and more. The airport is also home to an advanced high technology firm that designs, builds and markets computer systems for tactical aviation operations. The private sector aviation firms reported employment of 110 workers with compensation of \$8.6 million and output (revenues) of \$21.8 million.

## CAPITAL IMPROVEMENT PROJECTS

Capital improvement projects are also included as a source of airport economic benefits since construction activity generates spending and employment both on and off the airport. Runway improvements, fencing, drainage projects, and building construction are all examples of capital improvements that enhance safety and provide for growth.

Major capital improvement projects that begin at a point in time can extend over more than one year and annual outlays can vary sharply from year to year when larger projects are underway. To smooth out the annual variation in capital improvement spending, economic benefit studies average outlays over a multi-year period.

For this study, figures on capital improvements were obtained from Department of Airports records and averaged over the four-year period from 2015 through 2018. Projects at Oxnard Airport included apron rehabilitation, hangar maintenance, and repairs to roofing and fencing. The average annual outlay was \$216,000 (**Table 6**). This value was used to obtain the employment estimate of one full time equivalent construction employment worker-year and \$68,000 worker compensation as a representative annual figure for capital improvement activity at the Airport.

**TABLE 6 | Capital Projects**

Year	Projects
FY 2015	\$513,000
FY 2016	\$32,000
FY2017	\$63,000
FY2018	\$257,000
<b>Total</b>	<b>\$865,000</b>
<b>Average</b>	<b>\$216,000</b>

*Source: Department of Airports*

### DIRECT, SECONDARY, AND TOTAL ON-AIRPORT BENEFITS

The capital improvement projects undertaken on the airport by private contract firms were incorporated into the computation of direct benefits of on-airport activity to provide a final sum of 125 jobs on the airport, with payroll of \$10.3 million and direct output of \$25.8 million.

Secondary benefits as estimated by the IMPLAN model added employment of 157 more jobs and additional output of \$22.0 million as the initial direct spending recirculated within the regional economy. As noted earlier, secondary effects come from two sources. On-airport private firms and public agencies make purchases from suppliers and vendors, who in turn purchase inputs and hire employees to support production of goods and services for airport customers. This effect is known as the indirect benefit. Simultaneously, employees of airport firms and agencies and employees of their suppliers are also consumers who spend incomes in their home communities. This spending stimulates additional jobs and output in the sectors serving consumers, creating induced benefits across the area economy.

Of the 157 secondary jobs created by airport operations, 67 were indirect jobs adding to the number of workers in supplier industries to on-airport activity, such as finance and insurance, business services, providers of parts, supplies and materials, transportation and warehousing, information and communication systems. There also were 90 additional jobs induced by household spending by airport and supplier employees across a broad spectrum of consumer industries including health care, food service, retail trade, and personal services.

The total benefits of on-airport operations are the sum of the combined direct and secondary benefits. The total benefits were 282 jobs supported, with payroll of \$18.7 million, and output of \$47.8 million contributed to the area economy.

Direct on-airport employment benefits of 125 jobs accounted for 44 percent of total employment benefits, while the secondary (or multiplier) component of 157 jobs accounted for 56 percent. Shares were reversed for output benefits. Of the \$47.8 million of total benefits, the \$25.8 million of direct benefits accounted for 54 percent. The source of the differential benefits can be seen by comparing dollars of output per worker from direct benefits ( $\$25,806,000/125 = \$206,448$ )

and secondary output per worker ( $\$21,994,000/157 = \$140,089$ ). Workers in direct on-airport jobs have productivity (output per worker) some 45 percent greater than workers in the general economy, the source of secondary benefits.

Moreover, average compensation for workers on Oxnard Airport is greater than for those in the general economy. Bolstered by the presence of high technology workers on the airport, the average compensation across Oxnard Airport workers was \$82,736. The U.S. Bureau of Economic Analysis reports the average compensation for all of Ventura County was \$72,471 (adjusted to 2018 by the CPI). On-airport compensation was more than 10% greater than the average job in the area.

### **GENERAL AVIATION VISITOR ECONOMIC BENEFITS**

Visitors travel on general aviation aircraft to Oxnard Airport for business, as vacationers, to reunite with friends and relatives, to attend conferences, or for various personal or professional reasons. Although general aviation travel is sometimes viewed as a luxury mode of transport, the efficiencies and flexibility of general aviation are highly desirable, especially to corporate travelers. Studies of companies that use business aviation find that these firms outperform other firms on key financial measures such as earnings and share price growth. While these visitors are in the Ventura County area, they contribute to the regional economy with expenditures on lodging, food and drink, and other goods and services.

Based on reports from the FAA Air Traffic Activity System (ATADS), there were 14,047 itinerant general aviation arrivals at Oxnard Airport in 2018 (**Table 7**). In brief, an itinerant arrival is defined as a flight that has originated at an airport other than Oxnard Airport. This definition includes returning based aircraft as well as arriving non-based aircraft. To determine the number of transient arrivals, a sample of 2,000 arrivals from the FlightAware Flight Tracker database for OXR was analyzed. This source includes arrival and departure times for aircraft identified by N numbers, on an hourly basis. Based

aircraft arrivals were removed by matching arriving N numbers with known N numbers of OXR based aircraft. Arrivals with minimal length of stay at OXR and a large number of training flights from other airports were also removed. By this process, an estimate of 5,042 “true transient” aircraft (36 percent of FAA reported itinerant arrivals) was obtained for Oxnard Airport for 2018.

Of these, an estimated 1,311 remained overnight while the GA travel party conducted business or visited in the area for personal reasons. The remaining 3,731 aircraft stayed for a portion of one day, long enough to leave the airport, but not overnight.

**TABLE 7 | General Aviation Itinerant Aircraft**

Category	Value
Itinerant GA Arrivals	14,057
Transient Aircraft	5,042
Overnight Stay Aircraft	1,311
One Day Stay Aircraft	3,731

*Source: Derived from FAA Air Traffic Activity System (ATADS) and hourly arrival and departure N number records for Oxnard Airport (OXR) as compiled by the FlightAware Flight Tracker system, 2018*

## GENERAL AVIATION VISITOR SPENDING

Overall visitor spending depends on the number of visitors, their length of stay, and the types of expenditures made. The number of visitors is a function of the number of arriving aircraft and average passengers per aircraft. While appealing in concept, attempts to survey pilots and passengers of arriving or departing general aviation aircraft invariably result in response rates that fall well below acceptable levels of statistical significance. Studies by the National Business Aviation Association and Harris Interactive found average travel party size across business aviation flights of 3.0 persons. This estimate may be influenced by larger corporate jets, as the Aircraft Owners and Pilots Association has reported an average of 2.5 passengers in the past. For this study, an average of these two estimates, 2.7 passengers per aircraft, was used. This estimate also aligns with recent national studies, such as the *Texas Aviation Economic Impact Study* (2018), which determined average GA passengers per aircraft of 2.7 at Texas airports with greater than 10,000 operations.

Estimates for visitor spending per person per day are set out in **Table 8**. Data on spending by category were obtained from the Ventura Visitors and Convention Bureau and updated to 2018 values though adjustment by the Consumer Price Index.

Visitor spending per person per day for overnight visitors was \$264. The largest component was lodging at \$157, which accounted for 60 percent of the total. The next largest category for overnight visitors was food and drink, at \$59 per person per day and 22 percent of the total.

Visitors who were only in the area for a day had no expenses for lodging and therefore total spending per person was lower than for overnight visitors, at \$44. Since one-day visitors were often in the area for only a portion of a full day, each spending category was adjusted to 40 percent of the full day/overnight values.

From analysis of Oxnard Airport overnight parking fee records, it was determined that the average length of stay of overnight general aviation aircraft was 1.8 days. Multiplication yielded a result of 6,371 visitor days for general aviation visitors that remained overnight. The number of visitor days by those who only stayed in the area one day or a portion of one day was 10,074 visitor days. The sum of general aviation visitor days for 2018 was 16,445. Multiplication of spending per person per day by the total number of visitor days results in estimates of annual overnight visitor spending of \$1.7 million and annual one-day visitor spending of \$443,000, for a direct economic benefit of GA visitors of \$2.1 million in 2018.

**TABLE 8 | General Aviation Visitor Spending per Person per Day**

Category	Overnight GA Visitors	One Day GA Visitors
Lodging	\$157	N/A
Food & Drink	\$59	\$24
Retail Goods & Services	\$24	\$10
Entertainment	\$4	\$2
Ground Transportation	\$20	\$8
<b>Spending per Day</b>	<b>\$264</b>	<b>\$44</b>
Visitor Days	6,371	10,074
<b>Direct Visitor Spending</b>	<b>\$1,682,000</b>	<b>\$443,000</b>
<b>Direct Visitor Benefits = \$2,125,000</b>		

*Source: Spending from Ventura Visitors and Convention Bureau, adjusted to 2018 values by Consumer Price Index, U. S. Bureau of Labor statistics. Day visitor spending for each category is 40% of one full day spending. Some figures are rounded and may not compute exactly.*

## DIRECT, SECONDARY, AND TOTAL VISITOR BENEFITS

Annual direct, secondary, and total air visitor benefits are shown in **Table 9**. Benefits are shown for overnight, one day, and combined general aviation visitors.

**TABLE 9 | Economic Benefits from General Aviation Visitors**

Category	Overnight GA Visitor Expenditures	One Day GA Visitor Expenditures	Output (Expenditures)	Payroll	Employment
<b>Direct Economic Benefits</b>					
Lodging	\$1,000,000	N/A	\$1,000,000	\$334,000	9
Food/Drink	\$376,000	\$241,000	\$618,000	\$151,000	6
Retail Sales	\$153,000	\$101,000	\$254,000	\$25,000	1
Entertainment	\$25,000	\$20,000	\$45,000	\$20,000	1
Ground Transport	\$127,000	\$81,000	\$208,000	\$49,000	1
<b>Direct Benefits</b>	<b>\$1,682,000</b>	<b>\$443,000</b>	<b>\$2,125,000</b>	<b>\$579,000</b>	<b>18</b>
<b>Secondary Economic Benefits</b>					
Indirect Benefits	\$384,000	\$83,000	\$467,000	\$179,000	3
Induced Benefits	\$723,000	\$157,000	\$880,000	\$337,000	6
<b>Secondary Benefits</b>	<b>\$1,107,000</b>	<b>\$240,000</b>	<b>\$1,347,000</b>	<b>\$516,000</b>	<b>9</b>
<b>Total Benefits</b>	<b>\$2,789,000</b>	<b>\$683,000</b>	<b>\$3,472,000</b>	<b>\$1,095,000</b>	<b>27</b>

*Source: Spending estimates based on figures from Ventura Visitors and Convention and Bureau. Employment and payroll estimated by the IMPLAN input-output model.*

The largest spending category by aviation visitors was overnight expenditures for hotel or other accommodation, with outlays of \$1.0 million. The level of lodging employment associated with this spending level was 9 jobs and payroll of \$334,000. The second greatest spending category was food and drink, with combined overnight and one day visitor outlays of \$618,000, creating 6 jobs with payroll of \$151,000. Direct visitor benefits included output (spending) of \$2.1 million, 18 annual-equivalent jobs supported, and payroll of \$579,000. The indirect benefits created by purchase of intermediate goods and services from suppliers to the hospitality industry were output of \$467,000 and 3 additional jobs across the regional economy. The induced spending by workers as consumers created benefits of \$880,000 revenues and 6 jobs. Both the indirect and induced spending recirculated within the area economy to increase revenues to business, create jobs for workers, and provide payroll for further expenditures. The secondary benefits due to multiplier effects summed to \$1.3 million of revenues, 9 jobs, and \$516,000 of payroll. The total economic benefits from air visitor spending were \$3.5 million in output and 27 jobs supported throughout the economy, with payroll income to workers of \$1.1 million.

## GOVERNMENTAL REVENUE BENEFITS

Because of the output, jobs, and income created by the presence of Oxnard Airport, the facility is an important source of public revenues. Estimated tax revenues are shown in **Table 10**. Revenues were derived from the IMPLAN model, using average tax rates for Ventura County and California for profits, personal income, property, and sales taxes. Federal taxes are calculated using current federal rates for Social Security taxes, income, profits, and other federal taxes and fees.

The largest federal component was the social security tax, with contributions from employers and workers of \$2.2 million in 2018. The second largest federal tax category was the personal income tax paid by workers and proprietors of \$1.7 million. Overall, federal tax revenues estimated due to economic activity associated with Oxnard Airport were calculated to be \$4.5 million for 2018.

State and local tax revenues, shown in the lower portion of the table, summed to \$2.2 million for 2018. The largest state and local component was the property tax of \$617,000. California personal incomes taxes were estimated to be \$592,000. Combined federal, state, and local government tax revenues created by the presence of Oxnard Airport were \$6.7 million at the 2018 level of airport activity and visitor spending.

## COMPARISON OF DIRECT ECONOMIC BENEFITS: 2008 AND 2018

**Table 11** presents a comparison of economic benefits as reported in the 2008 *Oxnard Airport Economic Benefit Analysis* and the current study based on data for 2018. The comparison emphasizes direct benefits to neutralize the effects of secondary benefits due to annual revisions in the multipliers and coefficients imbedded in the IMPLAN model over the past 10 years. Further, capital improvement projects were not included, as spending in a given year is affected by grant programs and depreciation cycles, among other factors. Dollar values from the 2008 analysis were adjusted to 2018 by the Consumer Price Index (CPI).

**TABLE 10 | Government Revenue Benefits**

Federal Taxes	
Corporate Profits Tax	\$402,000
Personal Income Tax	\$1,732,000
Social Security Tax	\$2,196,000
All Other Federal Taxes	\$159,000
<b>Total Federal Taxes</b>	<b>\$4,489,000</b>
State & Local Taxes	
Corporate Profits Tax	\$105,000
Property Tax	\$617,000
Sales Tax	\$551,000
Personal Income Tax	\$592,000
All Other State & Local	\$306,736
<b>Total State &amp; Local Taxes</b>	<b>\$2,172,000</b>
<b>Total All Taxes</b>	<b>\$6,661,000</b>

*Source: Calculations from the IMPLAN input-output model based on tax rates for Ventura County and California and current federal rates. All figures are in 2018 dollars.*



**TABLE 11 | Direct Economic Benefits 2008 and 2018**

2018 Benefits	Employment	Payroll	Output
On-Airport Benefits	125	\$10,342,000	\$25,806,000
Air Visitor Benefits	18	\$579,000	\$2,125,000
Direct Benefits	143	\$10,921,000	\$27,931,000
2008 Benefits*	Employment	Payroll	Output
On-Airport Benefits	150	\$8,104,000	\$34,926,000
Air Visitor Benefits	102	\$3,331,000	\$8,387,000
Direct Benefits	252	\$11,435,000	\$43,313,000
Percent Change 2008-2018	Employment	Payroll	Output
On-Airport Benefits	-16.7%	27.6%	-26.1%
Air Visitor Benefits	-82.4%	-82.6%	-74.7%
Direct Benefits	-43.3%	-4.5%	-35.5%

\* 2008 figures derived from economic benefit analysis for 2008 adjusted to 2018 value by application of the Consumer Price Index from the U. S. Bureau of Labor Statistics. Capital improvement projects have been removed from 2008 and 2018 direct benefits.

For most categories, direct benefits declined compared to 2008. Direct employment in 2008 due to the presence of the airport was 252 workers. In 2018, the corresponding figure was 143, a decrease of 43.3 percent. Output (at 2018 prices) in 2008 was \$43.3 million and fell by 35.5 percent to \$27.9 million in 2018. Payroll increased for on-airport workers, but overall was down from 2008 to 2018 by 4.5 percent. The largest decreases in the table relate to the direct benefits created by spending by visitors who arrive by air. Direct employment and payrolls from air visitors were down by more than 80 percent, while spending was down by nearly 75 percent. The most important difference between 2008 and 2018 direct economic benefits is the absence of the impact of commercial service for Oxnard Airport in 2018.

While operations and based aircraft were down in 2018 compared to 2008, a sharp decline in visitor days accounted for a significant portion of the decrease in economic benefits over the period (**Table 12**). Operations

**TABLE 12 | Activity Indicators 2008 and 2018**

Year	Visitor Days	Operations	Based Aircraft
2018	17,060	73,798	140
2008	59,138	83,998	178
Numeric Change	-42,078	-10,200	-38
Percent Change	-71.2%	-12.1%	-21.3%

Source: Oxnard Airport economic benefit analyses for 2008 and 2018

were down by 12.1 percent, based aircraft down by 21.3 percent, but visitor days were down by 71.2 percent. Visitor days, especially from commercial service passengers, represent spending potential by travelers who come to Ventura County and bring outside dollars injected into the regional economy to create jobs, payrolls, and output.

In 2008, there were 21,369 commercial service enplanements at Oxnard Airport. According to the Origination and Destination data from the U. S. Department of Transportation, 42 percent or 8,975 were visitors to the area. In 2008, visitors were surveyed in the terminal to obtain information on travel patterns such as length of stay, party size, and spending. Survey results presented in the 2008 study showed commercial service visitors in that year accounted for 47,568

visitor days and \$6.4 million in spending (in 2018 dollars). The difference between air visitor output in 2008 and 2018 from Table 11 is \$6.3 million, attributable almost entirely to the loss of the commercial service component.

The absence of commercial service activity also accounts for much of the difference in on airport output revenues as well. In 2008, a major source of output was the value of originating commercial service tickets purchased by Ventura County residents, approximately \$2.5 million (2018 dollars). In addition, rental car revenue in 2008 was \$7.8 million (2018 dollars) and \$1.7 million in 2018, a differential of over \$5 million. Taken together, these two sources of 2008 output sum to \$8.6 million (2018 dollars) or more than 90 percent of the \$9.6 million difference between on-airport output in 2008 and 2018. These figures illustrate the economic benefits associated with commercial service and the jobs, incomes and revenues created by inbound visitors and outbound residents.

## **DATA SOURCES**

Aircraft Owners and Pilots Association

County of Ventura, Department of Airports

FAA, Air Traffic Activity System (ATADS)

FAA, Terminal Area Forecast (TAF)

FlightAware Airport Flight Tracker ([flightaware.com](http://flightaware.com))

IMPLAN Group, LLC, Huntersville, NC ([Implan.com](http://Implan.com))

National Business Aviation Association

*Oxnard Airport Economic Benefit Analysis, 2008*

Survey, Oxnard Airport tenants, 2018

*Texas Aviation Economic Impact Study, 2018*, Texas Department of Transportation

U. S. Bureau of Economic Analysis

U. S. Bureau of Labor Statistics

Ventura Visitors and Convention Bureau