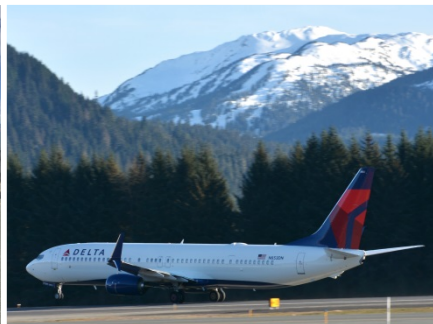


# Economic Impact of the Juneau International Airport



*An appendix prepared by Sheinberg Associates, to the  
2016 Juneau International Airport Sustainability Master Plan, AECOM*



July 2016

# Table of Contents

Executive Summary .....	1
Passenger Travel .....	1
Air Freight .....	2
Economic Effects .....	3
Introduction .....	5
Analytical Methods.....	6
Transportation Data.....	6
Leaseholder and Business Economic Activity Survey .....	7
Determining Direct, Indirect, and Induced Effects .....	9
Movement of Passengers, Freight, and Mail Creates Demand for Services and Goods.....	10
Passengers .....	10
Air Freight.....	13
Mail .....	15
Jobs, Payroll, and Spending.....	18
Defining Direct, Indirect, and Induced Effects .....	18
Employment and Labor Income .....	20
Purchases and Spending at JNU .....	20
Airport Capital Project’s Return on Investment for the CBJ.....	21
Appendix 1 - Economic Activity Survey/ Cover Letter and Instrument.....	22

## Executive Summary

A current look at the role that the Juneau International Airport plays in Juneau's economy is part of the 2016 Juneau International Airport Sustainability Master Plan<sup>1</sup>. This Economic Impact Analysis identifies volumes of passengers, freight, and mail moving to and from Juneau by air, and estimates the direct, indirect, and induced employment, income, and spending that results.

The airport is critically important to the Juneau economy.

Juneau residents, businesses, and neighboring Southeast Alaskans depend on the Juneau International Airport to bring people, freight, and mail to and from the region.

Given its isolation, the airport in combination with Juneau's ports, plays a critical role ensuring security, public health and safety, unimpeded economic trade, and public confidence.

Key industries and activities depending on the Juneau International Airport include:

- Medical – medivac flights for accidents and seriously ill residents and visitors
- Tourism – travel of visitors and workforce
- Commercial Fishing and Seafood Processors - shipment of fresh seafood
- The State and Federal Government, State Legislature - conduct of business in the Alaska Capital
- Multiple Industries - time-sensitive shipment of inventory, supplies and equipment
- Mail, documents, and packages handled by the US mail and private couriers

It is the movement of people, freight, and mail that creates the commerce, jobs, payroll, and spending at the Juneau International Airport and for onsite businesses. This activity provides a market for services and goods that rely upon air transportation.

### Passenger Travel

The number of air passengers travelling through the Juneau airport is growing. In 2014, Juneau airport records show there were 685,740 travelers through the airport including 620,837 on aircraft and 64,837 on helicopters. Preliminary 2015 data shows growth continuing.

- The earlier passenger travel peak was in 2007, which was followed by a decline linked to the national recession. In particular, the recession affected discretionary income and

---

<sup>1</sup> This Economic Assessment primarily uses 2014 data because a project survey of businesses at the airport gathered 2014 employment, salary, and spending data. Year 2014 is the most up-to-date, complete set of information available.

tourism related travel. Since 2009, passenger travel to and from Juneau has been growing.

- Data for 2015 verifies that the addition of Delta Airlines jet service to and from Juneau is not cutting into Alaska Airlines travel, rather it is bringing new passengers to town and overall traveler numbers for both carriers are increasing.

In 2014, almost one-third (29%) of passenger travel was between Juneau and one of several other communities in Southeast Alaska.

Nearly half (47%) of all passenger travel is to or from Seattle.

US Bureau of Transportation Statistics (BTS) segment data shows that in 2014 there were an additional 155,000 passengers who “flowed” through Juneau onboard a plane but not getting off because they were bound for another destination along the route. (For example people who get on in Yakutat bound for Seattle though the plane stops in Juneau along the way.)

The Juneau International Airport Sustainability Master Plan (AECOM, 2016) forecasts the number of departing (enplaned) passengers from Juneau will increase at an average annual rate of 1.4% through 2035. In 2014, the number of enplaned passengers was 310,945 (does not include helicopter passengers); by 2035 the number is forecast to be 469,780.

The average fare in 2014 for a passenger departing Juneau on a scheduled flight (to all destinations, not including helicopter travel) was \$260, which for the 311,945 departing passengers equaled \$81 million in spending just on airfares.

## **Air Freight**

Depending on the year, up to 27% more air freight arrives in Juneau than is shipped out. Most arriving air freight comes from Anchorage, followed by Seattle, then Sitka. While more overall air freight arrives in Juneau than leaves, it is not surprising that this pattern reverses where Juneau’s Southeast Alaska neighbors are concerned. Juneau typically ships more freight out to these places than it receives. Discussions with the cargo carriers reveal recent growth in air freight linked to online shopping by regional residents.

Air freight departing Juneau is primarily heading to Seattle, followed by Anchorage, then Sitka. Seafood is a primary product shipped from Juneau.

In 2014, Juneau Airport records show that 15.7 million pounds of freight arrived in or departed from JNU on an Alaska Airlines, Delta Airlines, Empire Airlines, or Alaska Central Express jet. An additional 1.1 million pounds was transported between Juneau and neighboring communities in 2014 by Alaska Seaplanes, Wings of Alaska, Air Excursions, and Ward Air according to BTS records.

Alaska Airlines transported 65% of all freight; in addition to its own cargo, Alaska Airlines carries UPS and most US mail. Alaska central express moves UPS freight from Juneau to other regional communities. Empire Airlines (contractor for FedEx) moved 26% of Juneau's air freight. Freight moved between Juneau and neighboring Southeast Alaska communities accounted for 7% of the total.

BTS segment data shows that in 2014, over 100% more freight "flowed" through Juneau onboard a plane but was not offloaded, than was enplaned or deplaned in town. This is freight that was already on an aircraft from another city, but not removed in Juneau, because the cargo was bound for another destination along the route. For example, this is seafood loaded on a jet in Anchorage or Yakutat that is bound for Seattle, but the plane stops in Juneau along the way. This means that when a jet lands in Juneau, on average half the cargo hold is full.

## Economic Effects

The airport and the businesses there are major employers and generate significant commerce:

- Together, their combined payroll, capital, and operations and maintenance spending created 1,082 average annual jobs in Juneau in 2014 including 687 direct and 395 indirect and induced jobs.
- Total labor income for airport workers (private, CBJ, federal) was \$63.6 million, which includes \$50.4 million direct income and another \$13.2 million in indirect and induced labor income.
- The operational and maintenance spending and purchases by the airport and businesses there totaled \$51.7 million in 2014. Capital spending that year was \$17.5 million.
- When the effect of this economic activity works through the local economy, input-output modelling shows that the demand for air transportation services and goods at the Juneau International Airport generated \$174 million in income and spending in 2014 when direct, indirect, and induced labor income and spending are totaled.

Major businesses in Juneau affected by this indirect and induced output include:

- Maintenance, repair, and construction of commercial/industrial structures
- Couriers and messengers
- Retail - general merchandise stores, food and beverage stores
- Physician's Offices
- Postal service
- Full and limited service restaurants
- Real estate

If the airport was an economic sector, its 2014 average annual employment (private, federal, CBJ) of 687 and wages of \$50.4 million would make it the same size as Juneau's Construction

sector, twice as big as Juneau’s Manufacturing sector, larger than Retail Trade’s Food and Beverage sector, and about 80% the size of the Mining sector.

Airport Capital Improvement Projects (CIPs) create a significant Return on Investment (ROI) for the CBJ, varying from a ROI of 3:1 to 28:1. This means that every \$1 of CBJ funding brings in from \$3 to \$28 of federal/state funding. The large ROI is due to the fact that airport CIPs are primarily funded by the federal government, with a CBJ match.

The last two large airport CIPs (\$85 million Runway Safety Area construction and \$26 million Runway Rehab Project construction) were 93% funded by federal sources, with the state and local government each providing 3.5%. Each dollar of local funding thus leveraged 28 dollars of federal (primarily) funds. The ROI for the CBJ was 28:1.

The economic impact of the Juneau International Airport is summarized on Figure 1.

**Figure 1 - Economic Snapshot - Juneau International Airport, 2014**

<b>ECONOMIC ENGINE</b>	<i>includes Private, Federal, and CBJ</i>	<b>Direct</b>	<b>Indirect + Induced</b>	<b>Total Output</b>
	<b>Jobs</b> <i>(estm. number)</i>	687	395	<b>1,082</b>
	<b>Labor Income</b> <i>(estm. wages &amp; benefits, \$ millions)</i>	\$50.4	\$13.2	<b>\$63.6</b>
	<b>Operations and Maintenance</b> <i>(\$ millions)</i>	\$51.7	\$40.1	<b>\$109.3</b>
	<b>Capital Improvement Projects</b> <i>(\$ millions)</i>	\$17.5		
	<b>Sales + Property Tax Airport Businesses Paid</b> <i>(\$ millions)</i>	\$0.76	-	<b>\$0.76</b>
	<b>totals</b>	\$120.5	\$53.3	<b>\$173.7</b>
<b>Return on Investment for CBJ CIP Spending</b>				<b>3:1 to 28:1</b>
<b>COMING + GOING</b>	<b>Airplane Passengers</b> <i>(does not include medivacs)</i>	<b>620,837</b>		
	<b>Helicopter Passengers</b> <i>(departing)</i>	<b>64,903</b>		
	<b>Freight and Mail</b>	<b>21.7 million pounds</b>		
	<b>Aircraft Operations</b> <i>(helicopters traveling together are one operation)</i>	<b>99,460</b>		
	<b>Air Carriers Serving Juneau</b> <i>(in order of airplane passenger volume)</i> Alaska Airlines, Alaska Seaplanes, Wings of Alaska, Delta Airlines, Air Excursions, Ward Air, Era Aviation, Island Air Express, Avjet Corporation. Freight only carriers are Empire Airlines and Alaska Central Express. Helicopter operators are Temsco Helicopters, Coastal Helicopters, and North Star Trekking.			
<b>BUSINESS</b>	<b>Active Airport Leases</b> <i>(66% on airfield, 27% in terminal, 6% are landside)</i>	<b>176</b>		
	<b>Rentals, Leases, User Fees to Airport</b>	<b>\$3.0 million</b>		
	<b>Fuel Flowage Fees</b>	<b>\$619,518</b>		
	<b>Landing Fees</b>	<b>\$1.7 million</b>		
	<b>Active Businesses and Agencies on Airport Property</b> <i>(approx.)</i>	<b>50</b>		
	<b>General Aviation (Hangar) Leases</b>	<b>73</b>		

Sources and details in body of this report, 2016 Juneau International Airport Sustainability Master Plan, AECOM

## Introduction

A current look at the role the Juneau International Airport plays in Juneau's economy is part of the 2016 Juneau Airport Sustainability Master Plan<sup>2</sup>.

The Juneau International Airport ("the Airport" or "JNU," the 3-letter Airport code) is owned by the City and Borough of Juneau (CBJ) and operated by a professional manager and staff, with oversight provided by a 7-member Airport Board of Directors and ultimately by the CBJ Assembly. It is one of only a few airports in Alaska not owned by the State.

JNU is the primary commercial service airport in Southeast Alaska. Juneau residents, businesses, and neighboring Southeast Alaskans depend on the Juneau International Airport to transport people, freight, and mail to and from the region. In combination with Juneau's ports, the Airport is critical to ensuring security, public health and safety, unimpeded economic trade, and public confidence.

The Airport boundary encompasses over 650 acres of land, upon which are located all airport and infrastructure, an airport Fixed Base Operator (FBO), multiple businesses linked to air transportation, and dozens of private and commercial airplane hangars.

The analysis in this study provides current data on the number of passengers and pounds of freight and mail moving through the Juneau International Airport, and on the local jobs, labor income, capital and operational spending that this commerce generates.

This work would not have been possible without the assistance provided by Patty Wahto, Airport Manager; Ken Nichols, Airport Engineer; John Coleman, Airport Business Manager; Catherine Fritz, consulting Airport architect; Bob Bartholomew, CBJ Finance Director; Quinn Tracey, CBJ GIS Specialist; the AECOM Juneau International Airport Sustainability Master Plan team; and the many airport business owners and managers that provided information about their businesses.

---

<sup>2</sup> This Economic Assessment primarily uses 2014 data because a project survey of businesses at the airport gathered 2014 employment, salary, and spending data. Year 2014 is the most up-to-date, complete set of information available.

## Analytical Methods

This study gathered existing transportation data from both the Juneau International Airport and the US Bureau of Transportation Statistics, employed a tenant and business survey to obtain employment and spending data from airport-based businesses, conducted interviews with many business owners and airport staff, reviewed CBJ Airport budgets and CBJ Finance Department data on sales and property taxes, and used IMPLAN™ economic input-output modelling software to estimate direct, indirect, and induced economic output.

Each method used is now reviewed.

### Transportation Data

The methods for capturing activity at the Juneau International Airport were to obtain and analyze data collected by the US Bureau of Transportation Statistics (BTS) and by the Juneau International Airport (JNU). Each set of data has pros and cons that dictated its use.

The Juneau International Airport records data on the number of aircraft operations, number of arriving and departing passengers, and pounds of arriving and departing freight and mail, from each air carrier on a monthly basis. These are the most accurate records for JNU.

The national offices (generally) of all air carriers report the data listed in the paragraph above and additional information to the Office of Airline Information, Bureau of Transportation Statistics (BTS), Research and Innovation Technology Administration. This BTS database is frequently used by the aviation industry, the media, and researchers to produce reports and analyses on air traffic patterns, carrier market share, and air passenger, freight, and mail cargo flow.

Use of BTS data for JNU is complicated by the fact that some carriers contract with one another. For example, Empire Airlines provides the planes and pilots for Federal Express Corporation in and out of Juneau. Data reported to JNU includes only Empire Airlines. However, BTS data shows both Empire Airlines and Federal Express Corporation totals. Knowing details of how operations in Juneau work allowed Sheinberg Associates to understand that BTS data double-counts this freight volume.

Another difference for freight volumes is that data tracked by the Juneau Airport covers the four large freight carriers in and out of Juneau: Alaska Airlines, Delta Airlines, Alaska Central Express, and Empire Airlines. The BTS data includes these four as well as the smaller carriers that transport between Juneau and neighboring communities which in 2014 were Air Excursions, Alaska Seaplanes, Island Air Express, Wings of Alaska, and Ward Air. Therefore reported BTS freight volumes are higher than Juneau airport volumes.

An advantage of BTS data is that it shows airport-city pairs. This allows a review of the most important Juneau-city market pairs for passengers, freight, and mail, as long as freight volumes are accounted for accurately. Certain BTS data also analyzes segment flows, not just market

data. Segment data records how many passengers, and pounds of freight and mail were on aircraft that landed in Juneau but did not disembark because the destination was elsewhere along the route.

This study is careful to document which data source it is using throughout the report.

For this analysis, passenger volumes and pounds of freight and mail were determined using several years of the BTS All Carriers: T-100 Domestic Market Data and several years of Juneau International Airport data. Both identify the number of passengers and weight of freight and mail that is enplaned (departing from, or “on”) in Juneau or deplaned (arriving from, or “off”) in Juneau. BTS T-100 Market Data uses records of flights provided by every carrier of every commercial route, whether it is cargo, scheduled, or chartered passenger service.

Data on the number of helicopter flights was provided by the Juneau International Airport. Information that was not able to be obtained, due to the competitiveness of the industry, was the number of medivac flights from Juneau. In addition, this study does not include information on private (non-commercial) airplane flights.

## **Leaseholder and Business Economic Activity Survey**

An Economic Impact Survey and accompanying letter from Juneau International Airport Manager Patricia Wahto was initially sent to 176 leaseholders including business owners or managers on airport property and General Aviation (hangar) lessors. Several businesses sublease space from few lessors on the airport property, which expanded the number who eventually received a survey. In some cases a single lessor and business has multiple, related leases on different parts of the airport. Close work with the JNU Business Manager was needed to understand these tenant/lessor/business situations.

Businesses could complete the survey and mail or fax it back or complete it online. Follow-up phone calls were made with many business owners to confirm or discuss information provided. The survey instrument can be seen in Appendix 1.

A total of 60 survey responses were received. Full or partial surveys were returned by 35 businesses or agencies, which allowed reasonable estimates for similar businesses. Estimates were not made for five non-respondents. Full or partial surveys were also returned by 25 hangar owners, allowing a reasonable estimate for the 51 who did not reply. The JNU airport also provided information on its employees, payroll, operational, and Capital Improvement Project spending. Having payroll, employment and spending data from an estimated 79% of the businesses onsite, including all major businesses and air carriers, provides high confidence in the information and aggregated survey results.

Alaska Department of Labor and Workforce Development (ADOLWD) Quarterly Census of Employment and Wages (QCEW) data was used to fill-in any reporting gaps for federal employment at the airport.

Using survey responses, reasonable estimates, and data provided during interviews or from ADOLWD, information in this study came from the businesses and agencies listed on Figure 3 at JNU in 2014 (the base year for the analysis).

**Figure 3 - Businesses Included in Economic Assessment Analysis**

Business	Type
Alaska Central Express	Cargo
ACS (Telephone Utilities of Alaska)	Concessionaire
Admiralty Air Service	On-demand
Aero Services (Trajen)	Airfield & Related
Air National Guard	Fed/State
Airlift Northwest	On-demand
Alaska Airlines	Part 121
Alaska Promotions	Concessionaire
Alaska Seaplane Services	Part 135
Avis Rental Car	Concessionaire
Budget Rental Car	Concessionaire
Civil Air Patrol	On-demand
Coastal Fuel	Airfield & Related
Coastal Helicopters	On-demand
Delta Airlines	Part 121
Empire Air (Fed Ex)	Cargo
FAA (Flight Standards, Tech Ops, Other)	Fed/State
Fine Touch Repair	Airfield & Related
Fjord Flying Service	On-demand
Guardian Air	On-demand
Hertz Rental Car	Concessionaire
Hummingbird	Concessionaire
Jacobsen Daniels Associates	Concessionaire
National-Alamo Rental Car	Concessionaire
Northstar Trekking	On-demand
R&D Rentals	Airfield & Related
Republic Parking System Inc.	Concessionaire
Seaport Aviation Inc./Wings of Alaska	Part 135
Smartecarte	Concessionaire
Temsco Helicopters	On-demand
TSA (Transportation Security Administration)	Fed/State
UPS	Cargo
US Customs & Border Protection	Fed/State
USGS	Fed/State
Ward Air/Fairweather Leasing	On-demand
Wingnut	Airfield & Related

Information on 2014 operations and maintenance (O&M) spending and Capital Projects spending was provided by the airport, businesses, and hangar owners. Information on property taxes paid and sales taxes generated within the airport boundary was provided by the CBJ Finance Department and CBJ Community Development Department (GIS assistance).

The total gallons of fuel that were sold at JNU were available from the airport's monthly fuel flowage reports. The 2014 per gallon fuel price was estimated using information provided by select air carriers at JNU as well as information reported for Alaska or Juneau by Oil Price Information System (OPIS), AirNav.com, and GlobalAir.com<sup>3</sup>.

### **Determining Direct, Indirect, and Induced Effects**

Information provided on completed JNU Economic Impact Surveys, from interviews, and from ADOLWD was used to identify the airport and onsite businesses' direct employment, payroll, and spending in 2014.

IMPLAN<sup>TM</sup> economic input-output software, which has become an industry standard, was used to estimate the indirect and induced jobs and spending created by direct employment and spending as money flowed through the Juneau economy.

Indirect and induced effects are commonly called the multiplier effect or ripple effect; they are the economic effects of subsequent rounds of re-spending of airport-related jobs and dollars.

- Indirect effects are changes in sales, income, or employment in Juneau that are due to businesses and workers who supply goods and services to the airport and onsite businesses.
- Induced effects are the increased sales within Juneau from household spending of the income earned in airport and supporting industries.

Indirect and induced effects calculated in this report are for Juneau only. Non-local purchases (leakage) are not included in this report's multiplier analysis.

---

<sup>3</sup> <http://www.opisnet.com/products/worldwide-jet-prices.aspx>  
<https://www.globalair.com/airport/fuelpricetable.aspx?reg=aal&page=2>  
<https://www.airnav.com/fuel/local.html>  
<http://www.alaskajournal.com/2015-10-28/alaska-air-group-inc-reports-another-record-third-quarter#.Vv7jdHpWJc5>

Personal Communications, Sheinberg Associates with Air Carriers, February 2016

## Movement of Passengers, Freight, and Mail Creates Demand for Services and Goods

The movement of people, freight, and mail creates commerce, jobs, payroll, and spending at the Juneau International Airport providing a market for the businesses located there.

### Passengers

The Juneau International Airport is the primary commercial service airport in Southeast Alaska. Alaska Airlines offered year-round non-stop service to Seattle, Anchorage, Ketchikan, Petersburg, Sitka, and Yakutat in 2014. Delta Airlines offered summer non-stop service to Seattle<sup>4</sup>.



In 2014, two commuter carriers, Alaska Seaplanes and Seaport /Wings of Alaska offered scheduled air service to and from Juneau using both land based aircraft and floatplanes<sup>5</sup>. These airlines served Angoon, Elfin Cove, Excursion Inlet, Gustavus, Haines, Hoonah, Kake, Pelican, Sitka, Skagway, and Tenakee Springs. Air carriers Ward Air, Fjord Flying Service, Wings Airways, Harris Air as well as a number of smaller outfits offer charter or on-demand service to these locations as well as to mining camps and, in the summer, to fishing and wildlife destinations. In addition, two air ambulance services, Airlift Northwest and Guardian Air, provided regular medevac flights from Juneau to Seattle, Anchorage, and Sitka.

Helicopter carriers, including Temsco Helicopters, Coastal Helicopters, and North Star Trekking, offered on-demand trips in the summer for tourists as well as year-round support for mining and other business operations.

In Juneau in 2014, 620,837 passengers departed or arrived by air (not including medivacs), and another 64,903 departed from Juneau by helicopter for work or pleasure (Figure 4). Data for 2015 is still preliminary but verifies that the addition of Delta Airlines jet service to and from Juneau is not cutting into Alaska Airlines passengers, rather it is bringing new passengers to town and overall traveler numbers for both carriers are increasing.

Almost one-third (29%) of JNU passenger travel was between Juneau and another Southeast Alaskan community (Figure 5). Nearly half (47%) of all JNU passenger travel is to or from Seattle with the remaining 24% going to Anchorage.

---

<sup>4</sup> In 2015, Delta offered year-round service to and from Juneau, but has cut back to seasonal only service in 2016.

<sup>5</sup> Seaport subsequently went out of business; in 2016 there are still two Part 135 carriers – Alaska Seaplanes and Fjord Flying/Wings of Alaska.

BTS segment data showed that in 2014 there were 155,000 passengers who “flowed” through Juneau onboard a plane but not getting off because they were bound for another destination along the route. For example, these were people who got on in Yakutat but were bound for Seattle though the plane stopped in Juneau along the way. This is on average, an estimated additional 20% passenger load - people who are on a plane landing in Juneau but do not get off as they are travelling on to other destinations.

The Juneau International Airport Sustainability Master Plan (AECOM, 2016) forecasts the number of departing (enplaned) passengers from Juneau will increase at an average annual rate of 1.4% through 2035. In 2014, the number of enplaned passengers was 310,945 (does not include helicopter passengers); by 2035 the number is forecast to grow to 469,780.

The previous passenger travel peak was in 2007, which was followed by decline linked to the national recession (Figure 6). In particular, the recession affected discretionary income and tourism related travel. Since 2009, passenger travel to and from Juneau has been growing.

The average fare in 2014 for a passenger departing Juneau on a scheduled flight (to all destinations) was \$260, which for the 310,945 departing passengers equals \$81 million in spending just on airfares.

**Figure 4 - Airport Passenger Travel by Juneau - City Pair, 2014**

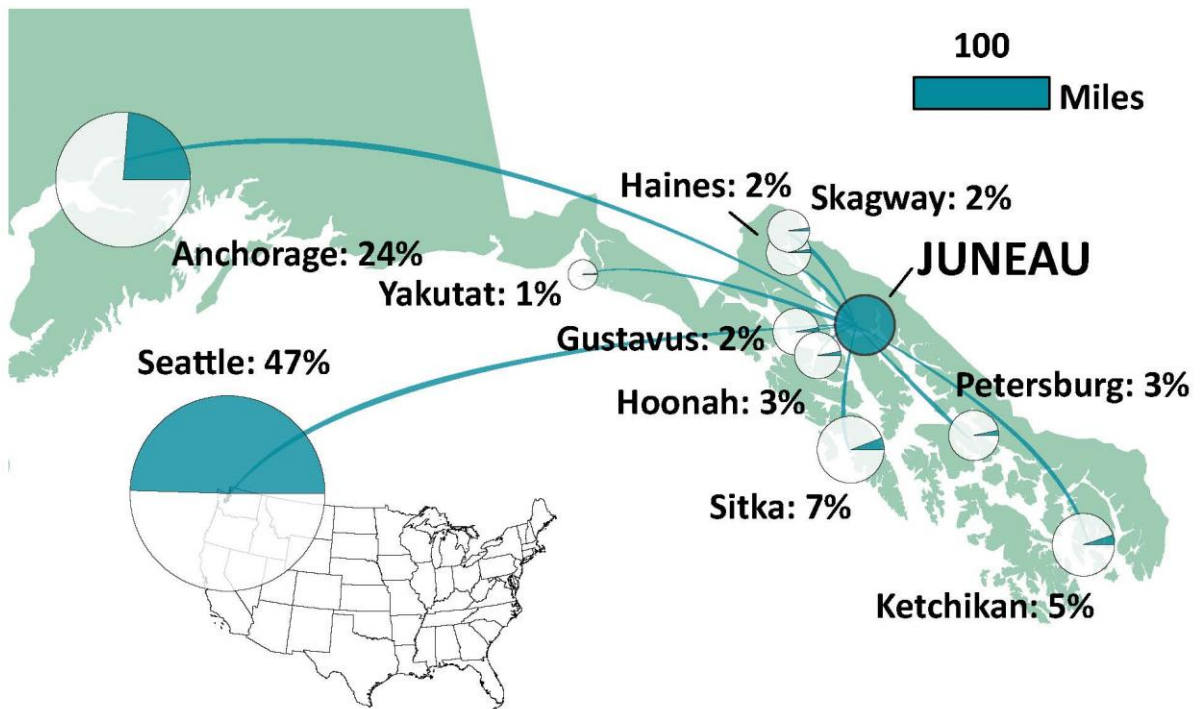
AIRCRAFT PASSENGERS (all)*				
City	Arriving Passengers	Departing Passengers	Total	% of total
Seattle, WA	146,341	144,849	291,190	47%
Anchorage, AK	73,221	76,423	149,644	24%
Sitka, AK	21,266	20,769	42,035	7%
Ketchikan, AK	16,171	17,452	33,623	5%
Petersburg, AK	9,964	8,691	18,655	3%
Hoonah, AK	8,194	8,693	16,887	3%
Gustavus, AK	7,948	6,744	14,692	2%
Haines, AK	6,757	7,461	14,218	2%
Skagway, AK	5,647	6,300	11,947	2%
Yakutat, AK	3,796	3,750	7,546	1%
Wrangell, AK	3,115	2,745	5,860	1%
Kake, AK	1,826	1,928	3,754	1%
Other Areas	5,646	5,140	10,786	2%
<b>Grand Total</b>	<b>309,892</b>	<b>310,945</b>	<b>620,837</b>	<b>100%</b>
HELICOPTER PASSENGERS				
<b>Departing Juneau:</b>	64,903			
ALL TRAVELERS*				
<b>Grand Total:</b>	685,740			

\*does not include medivacs

Sources: BTS T-100 Market Data; Juneau International Airport

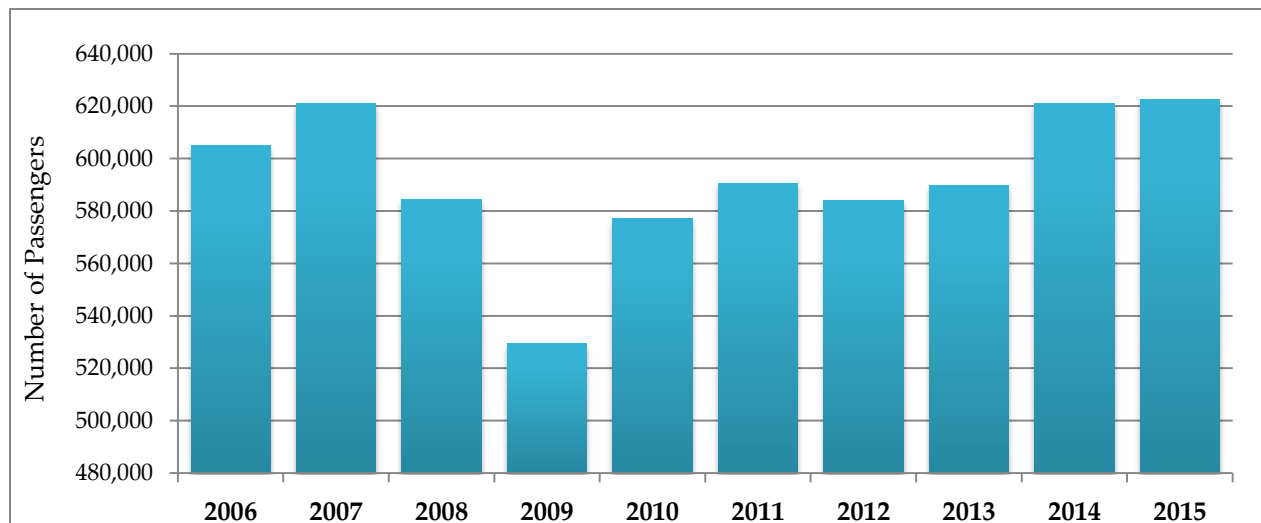
Figure 5

### Juneau Passenger Travel by Airport-City Pair, 2014



Source: BTS T-100 Market Data

Figure 6 - Juneau Airport - Total Arriving and Departing Aircraft Passengers\*, by Year



\* Does not include medivacs or helicopters. Source: US BTS T-100 Market Data

## Air Freight

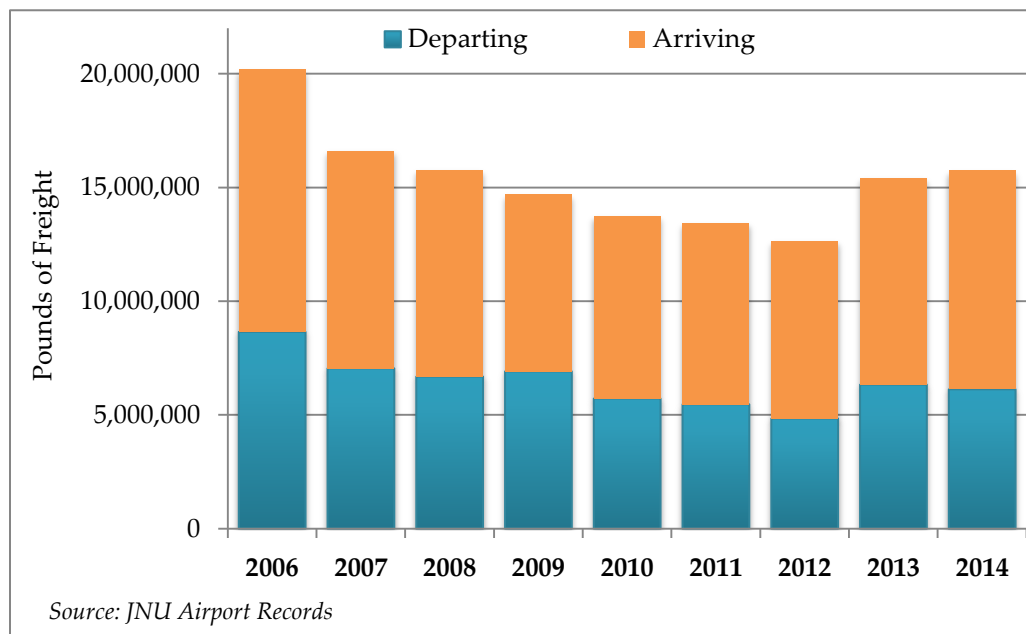
In 2014, Juneau Airport records show that 15.7 million pounds of freight arrived in or departed from JNU on an Alaska Airlines, Delta Airlines, Empire Airlines, or Alaska Central Express flight (Figure 7). An additional 1.1 million pounds was transported between Juneau and neighboring communities in 2014 by Alaska Seaplanes, Wings of Alaska, Air Excursions, and Ward Air, according to BTS records.



Alaska Airlines transported 65% of all freight; in addition to its own cargo, Alaska Airlines carries UPS and most US mail. Empire Airlines (contractor for FedEx) moved 26% of Juneau's air freight. Freight moved between Juneau and neighboring Southeast Alaska communities accounted for 7% of the total.

More air freight arrives in Juneau than is shipped out (Figure 9). Depending on the year, up to 27% more freight arrives than departs. Most arriving air freight comes from Anchorage, followed by Seattle, then Sitka. While more overall air freight arrives in Juneau than leaves, it is not surprising that this pattern reverses where Southeast Alaska neighboring communities are concerned. Juneau typically ships more freight out to these places than it receives. Discussions with the cargo carriers reveal recent growth in air freight is linked to an increase in online shopping by regional residents.

**Figure 7 - Air Freight - Total Pounds Arriving and Departing in JNU, by Year**



Air freight departing Juneau is primarily heading to Seattle (46%), followed by Anchorage, then Sitka (Figures 8 and 9). Seafood is a primary product shipped from Juneau.

According to BTS segment data, in 2014 an additional 19.3 million pounds “flowed” through the Juneau Airport; this is freight that was already on an aircraft from another city that was not offloaded in Juneau as it was bound for another destination along the airplane’s route. An example is seafood loaded on a plane in Anchorage or Yakutat and bound for Seattle, but the plane stopped in Juneau on the way. This means that when a jet lands in Juneau, on average half the cargo hold is full.

**Figure 8 - Airport Air Freight Volume\*\* by Juneau-City Pair, 2014**

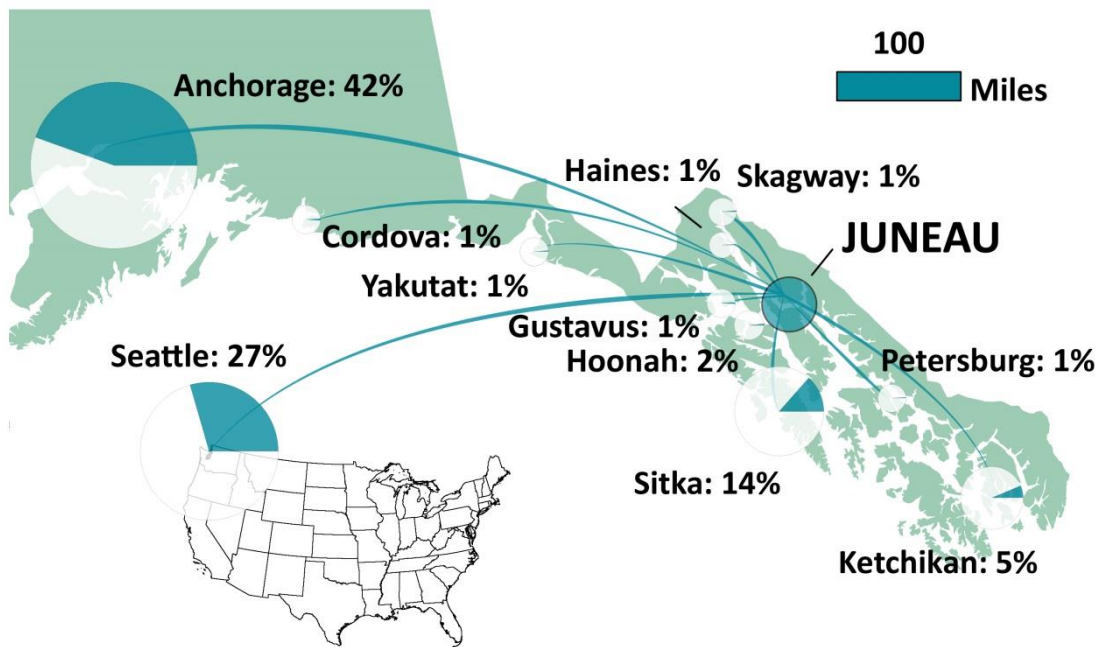
City	Arriving Freight (lbs)	Departing Freight (lbs)	Total Freight (lbs)	% of total
Anchorage	5,873,245	1,514,033	7,387,278	42%
Seattle	2,134,123	2,698,337	4,832,460	27%
Sitka	931,264	1,518,040	2,449,304	14%
Ketchikan	599,395	300,363	899,758	5%
Petersburg	157,798	50,684	208,482	1%
Cordova	104,833	83,891	188,724	1%
Yakutat	88,091	152,226	240,317	1%
Hoonah	84,719	197,796	282,515	2%
Wrangell	63,165	36,607	99,772	1%
Haines	39,828	207,835	247,663	1%
Pelican	39,766	58,157	97,923	1%
Kake	29,332	106,711	136,043	1%
Gustavus	22,434	166,759	189,193	1%
Skagway	15,564	199,879	215,443	1%
Other Areas	52,561	159,080	211,641	1%
<b>Grand Total</b>	<b>10,236,118</b>	<b>7,450,398</b>	<b>17,686,516**</b>	<b>100%</b>

*Source: BTS T-100 Domestic Market Data, excluding FedEx as this data is duplicated in BTS dataset (see page 7 of report for explanation).*

\*\* Juneau airport records show 15.7 million pounds of freight transported in or out of Juneau by four large carriers (see page 14), the additional 1.9 million pounds of freight reported on this table by the BTS data includes freight shipped by smaller carriers between Juneau and neighboring Southeast Alaska communities. It also likely includes a small volume of additional “double counting,” even after FedEx freight totals were removed (see page 7, 3<sup>rd</sup> paragraph from bottom, for explanation).

Nonetheless, BTS data is the only source for Juneau-City pair trends and the percentages are good indicators of freight movement between places.

## Juneau Air Freight by Airport-City Pair, 2014



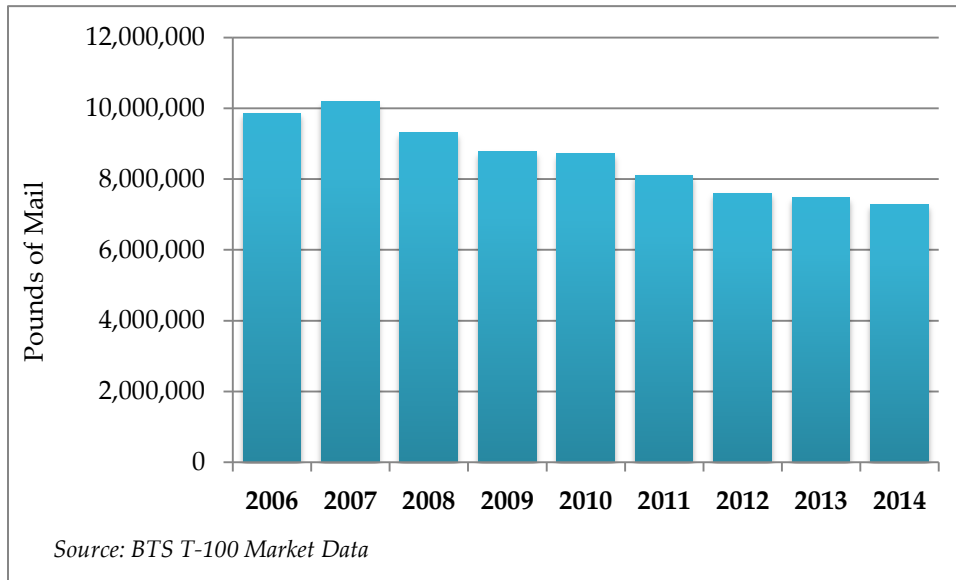
Source: BTS T-100 Market Data

## Mail

Like freight, more mail arrives in Juneau than departs. Similar to national trends, mail volume is steadily declining in Juneau as more communication happens electronically and online commerce delivery is often via private service (e.g. FedEx, UPS) rather than US mail (Figure 10).

In 2014, mail volume was less than half that of freight, at 6.0 million pounds either arriving in or departing from Juneau by large air carrier, according to Juneau Airport records. BTS data showed that an additional 1.3 million pounds of mail was transported in 2014 between Juneau and neighboring communities by Alaska Seaplanes, Wings of Alaska, Air Excursions, Ward Air, and Taquan Air Service. Similar to freight, mail volume was greatest between Juneau and Seattle, followed by Juneau and Anchorage in 2014. After that, most outgoing mail was to Ketchikan and Haines, while incoming mail hailed from Sitka and Ketchikan (Figures 11 and 12).

**Figure 10 - Juneau Airport - Total Arriving and Departing Mail, by Year**

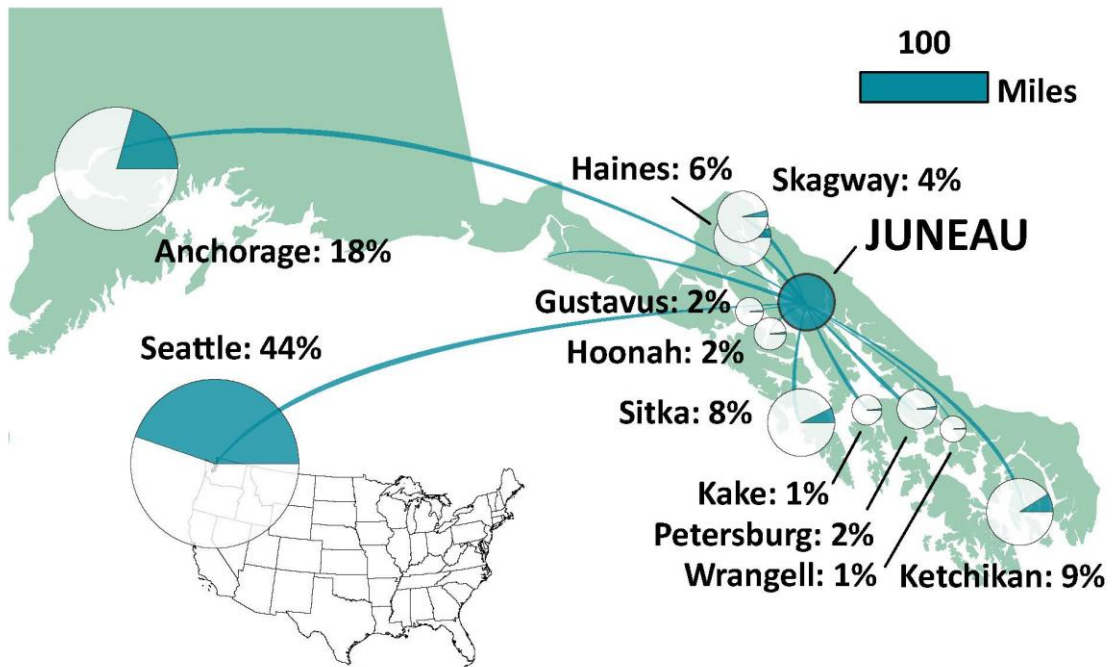


**Figure 11 - Juneau Mail Volume, by Airport-City Pair, 2014**

City	Arriving Mail (lbs)	Departing Mail (lbs)	Total Mail (lbs)	% of total
Seattle	757,134	2,470,184	3,227,318	44%
Anchorage	562,327	734,866	1,297,193	18%
Ketchikan	343,609	307,910	651,519	9%
Sitka	257,128	344,429	601,557	8%
Haines	333,710	63,686	397,396	5%
Skagway	262,022	53,758	315,780	4%
Petersburg	88,124	73,883	162,007	2%
Hoonah	116,318	27,755	144,073	2%
Gustavus	107,944	20,711	128,655	2%
Kake	83,029	14,204	97,233	1%
Wrangell	46,515	33,920	80,435	1%
Other Areas	151,585	35,125	186,710	3%
<b>Grand Total</b>	<b>3,109,445</b>	<b>4,180,431</b>	<b>7,289,876</b>	<b>100%</b>

Source: BTS T-100 Domestic Market Data. Does not include helicopters

**Figure 12**  
**Juneau Mail by Airport-City Pair, 2014**



Source: BTS T-100 Market Data

## Jobs, Payroll, and Spending

The Juneau International Airport and the businesses there are major employers that generate significant commerce (Figures 1 and 13):

- Together, the combined payroll, capital, and operations and maintenance spending created 1,082 average annual jobs in Juneau in 2014 including 687 direct and 395 indirect and induced jobs.
- Total labor income for airport workers (private, CBJ, federal) was \$63.6 million, which included \$50.4 million direct income and another \$13.2 million in indirect and induced labor income.
- The operational and maintenance spending and purchases by the airport and businesses there totaled \$51.7 million in 2014. Capital spending that year was \$17.5 million.
- When the effect of this economic activity works through the local economy, input-output modelling showed that the demand for air transportation services and goods at the Juneau International Airport generated \$174 million in income and spending in 2014 when direct, indirect, and induced labor income and spending were totaled.

If the airport were an economic sector, its 2014 direct employment (private, CBJ, federal) and wages would make it the same size as Juneau's Construction sector, twice as big as Juneau's Manufacturing sector, larger than Retail Trade's Food and Beverage sector, and about 80% the size of the Mining sector.

### Defining Direct, Indirect, and Induced Effects

Direct effects are the jobs, payroll, proprietor's income, and operational spending by the airport and onsite businesses. Indirect and induced effects are the multiplier or ripple effect; they show the economic effects of subsequent rounds of re-spending of airport-related jobs and dollars.

Indirect effects are changes in sales, income, or employment in Juneau that are due to businesses and workers who supply goods and services to the airport and onsite businesses. For example, the increased purchase of products by Juneau grocers and wholesale businesses so they can prepare the goods that airport concessionaire's and airfield service providers purchase and sell.

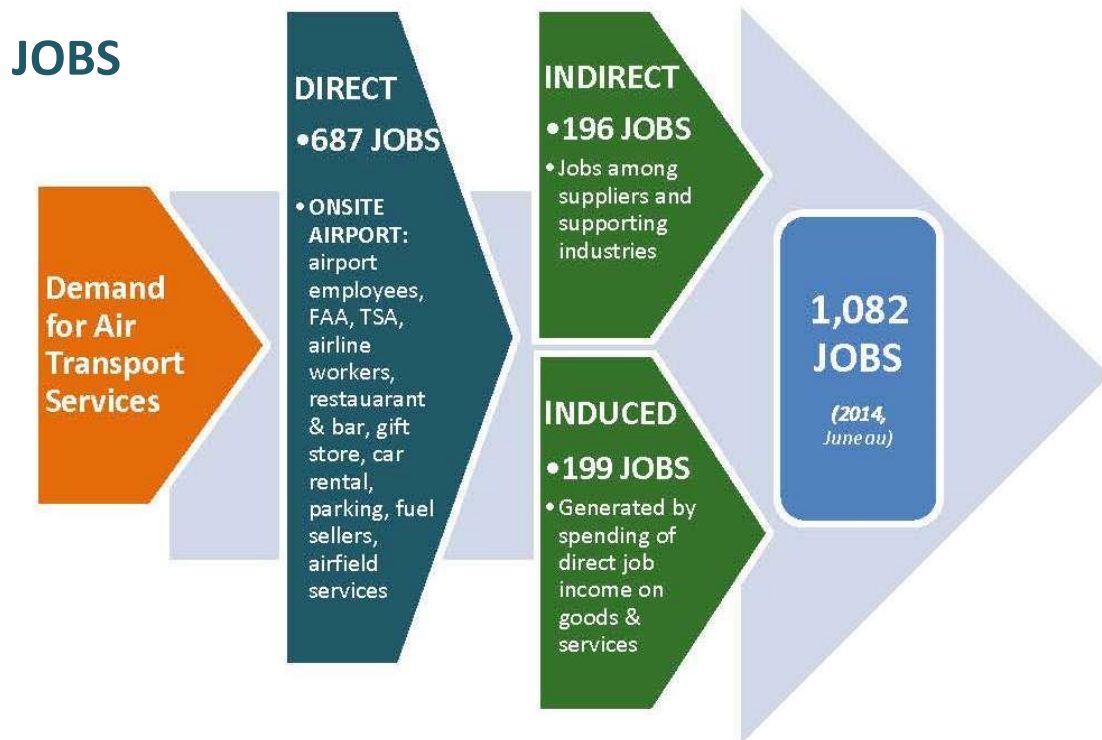
Induced effects are the increased sales within Juneau from household spending of the income earned in airport and supporting industries. For example, local Alaska Airlines employees spend the income they



earn on housing, utilities, groceries, and other consumer goods and services. This generates sales, income, and employment throughout Juneau’s economy.

Indirect and induced effects calculated in this report are for Juneau only. Estimates of non-local purchases (leakage) are not included.

**Figure 13 - The Juneau International Airport Plays a Major Role in the Economy**



**SPENDING**



## Employment and Labor Income

In 2014, responses to the Airport Economic Impact Survey documented an estimated 687 direct jobs (private, CBJ, federal/state) at the Juneau International Airport (weighted average annual employment). This weighted average annual employment figure includes:

- 532 year-round full-time employees, and another 60 year-round part-time employees
- In the summer, employment increased by an additional 108 full-time and 120 part-time employees

Most employees are private sector (Figure 14).

A conservative estimate of 2014 direct labor income at the Juneau International Airport is \$50.4 million. This includes wages and the benefits, contract employee salaries, and business proprietor's income. This is a conservative figure because several survey respondents did not include proprietor's income.

When indirect and induced labor income of \$13.2 million is added, total labor income linked to the Juneau International Airport in 2014 was \$63.6 million<sup>6</sup>.

## Purchases and Spending at JNU

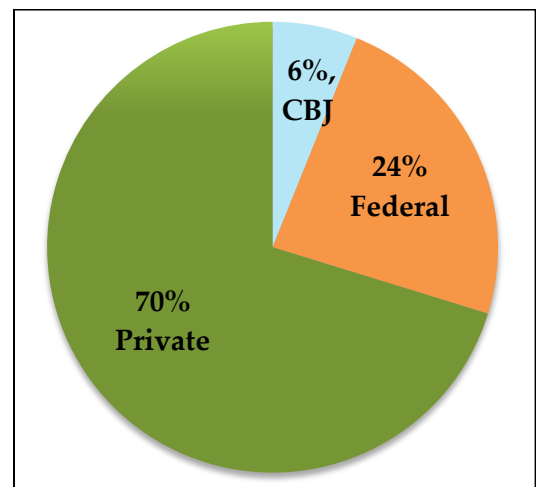
According to information provided on the Economic Activity Survey, in follow-up interviews, and by airport staff, direct operations and maintenance (O&M) spending in 2014 at JNU totaled \$51.7 million. This includes:

- \$33.5 million in O&M spending by the airport and all businesses onsite (this includes lease payments and rentals to the airport), and
- An estimated \$18.2 million in fuel purchases

The same sources all provided direct Capital Improvement spending for 2014 which totaled \$17.5 million. Of this, 80% were Juneau International Airport expenditures.

Businesses located within the airport boundary paid an additional \$761,646 to the City and Borough of Juneau in 2014 in property (\$262,037) and sales (\$449,609) taxes.

**Figure 14 - Year-Round Workforce at the Juneau Airport, 2014**

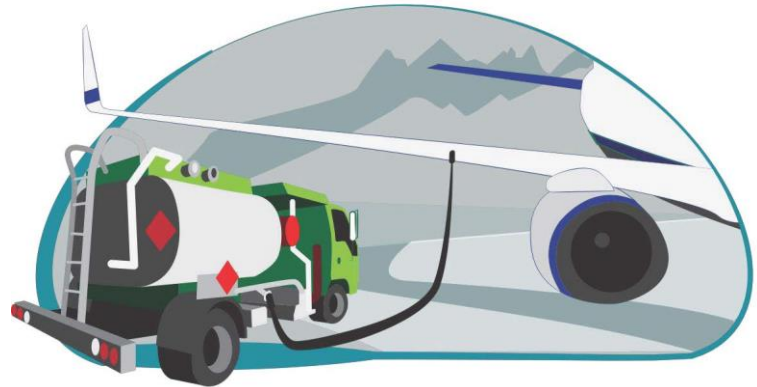


<sup>6</sup> Arguably another \$6.5 million in labor income linked to capital improvement project spending could be included in this total, but the input-output model includes that as part of total economic output.

Input-output modelling showed that together this spending created an additional \$40.1 million of indirect and induced economic activity in Juneau.

The major businesses in Juneau affected by the airports' indirect and induced employment, income, and spending are:

- Maintenance, repair, and construction of commercial/industrial structures
- Couriers and messengers
- Retail - general merchandise stores, food and beverage stores
- Offices of physicians
- Postal service
- Full and limited service restaurants
- Real estate



### **Airport Capital Project's Return on Investment for the CBJ**

Airport Capital Improvement Projects (CIPs) create a significant Return on Investment (ROI) for the CBJ, varying from a ROI of 3:1 to 28:1.

- This means that every \$1 of CBJ funding brings in from \$3 to \$28 of federal/state funding.
- The large ROI is due to the fact that airport CIPs are primarily funded by the federal government, with a CBJ match.

The last two large airport CIPs (\$85 million Runway Safety Area construction and \$26 million Runway Rehab Project construction) were 93% funded by federal sources, with the state and local government each providing 3.5%. Each dollar of local funding thus leveraged 28 dollars of federal (primarily) funds. The ROI for the CBJ was 28:1.

The largest near-term planned project is the approximately \$22 million Snow Removal Equipment Facility (SREF); this is proposed to be paid with \$17 million federal, \$3.5 million state, and \$2 million local funding. (Local funds include repaying close to \$2 million to the FAA.) SREF construction would thus yield a 7:1 ROI for the CBJ; every \$1 of local funding will generate \$7 from federal or state sources. Of note: state funding for these purposes to local airports has been eliminated, beginning next year. JNU airport staff note that for CIPs, 50-70% typically is spent purchasing services from Southeast Alaska businesses.

**Appendix 1 - Economic Activity Survey/ Cover Letter and Instrument**



## Juneau International Airport Economic Survey



December 16, 2015

Dear Airport Lease Holder or Concessionaire,

The purpose of this letter is to request your assistance. Please complete the attached short survey and return it no later than January 11.

You know the importance of the Juneau Airport to your business; however, the Juneau Airport Economic Impact Assessment will allow the Airport to demonstrate the Economic Contribution it makes to Juneau and the region. This will underscore the importance of the Airport with elected and appointed officials, policy and budget-makers, and the community.

The information you provide on the survey is critical to allow completion of this economic assessment, which is part of the Juneau Airport Sustainability Master Plan now underway.

Your completed survey form and your responses will be kept completely confidential and will only be reported in aggregate for the entire airport. No City and Borough of Juneau or Airport staff will see your responses - only Sheinberg Associates data processing personnel will see the survey responses. They are required to maintain complete confidentiality. Your survey form will be destroyed at the end of the project. You can also confidentially complete the survey online at: <http://bit.ly/JNUAirportEconomicStudy>

If you have any questions about this, please feel free to call me directly at (907) 789-7821 or call our contractor Barbara Sheinberg at (907) 586-3141 or email her at [Barbara@SheinbergAssociates.com](mailto:Barbara@SheinbergAssociates.com). Thank you in advance for your time and help.

Sincerely,

Patricia deLaBruere

Airport Manager

**Your Help Is  
Needed**

**The Juneau Airport  
Economic Impact  
Assessment will  
demonstrate the economic  
contribution of the Airport  
to Juneau and the region.**

# Economic Impact Survey – Juneau International Airport



This survey form and all your responses will be kept completely confidential and will only be reported in aggregate for the entire airport. Only the contractor's data processing personnel will see this form and they must maintain complete confidentiality. Your survey form will be destroyed at the end of the project. Please answer every question.

## CONTACT INFORMATION

Business or Individual Name : \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email: \_\_\_\_\_

## ACTIVITY TYPE

1. Check the box that best describes the primary business type associated with your lease(s) at the **Juneau Airport** (if you have multiple airport businesses or leases that are not related, complete a separate survey for each):

<input type="checkbox"/> Commercial Airline Passenger Carrier	<input type="checkbox"/> Air Taxi , Charter, On- Demand Air Carrier	<input type="checkbox"/> Helicopter Operator/Operations	<input type="checkbox"/> Aircraft Services (fueling, cleaning, maintenance, etc.)	<input type="checkbox"/> Air Ambulance Service
<input type="checkbox"/> Air Cargo or Freight Service	<input type="checkbox"/> Concession: Retail	<input type="checkbox"/> Concession: Food or Drink	<input type="checkbox"/> Concession: Rental Car	<input type="checkbox"/> Utility (e.g. ACS, AEL&P)
<input type="checkbox"/> FAA (Air Traffic Control, Flight Service Station, Tech Ops, Flight Standards)	<input type="checkbox"/> TSA	<input type="checkbox"/> Other Federal Government (USFWS, Customs, National Guard, etc)	Aircraft Storage <input type="checkbox"/> Tie-down <input type="checkbox"/> Hangar	<input type="checkbox"/> Other: (Please Describe)

## EMPLOYMENT

2. In the table at the top of the next page, please enter the average monthly number of direct and contract employees that you employed in 2014 at the Juneau Airport and the percent that you believe were not Alaska residents. (Please note that all information requested by this survey is for calendar year 2014.)

### Definitions:

- **Direct employees** are persons employed directly by your airport business in either full-time or part-time positions.
- **Contract employees** are persons directly employed by another firm but working at your on-airport business/lease operations through a contract arrangement.
- **Percent Non-Alaska residents** is the percentage of your employees that you believe were not Alaska residents.

Category	For 2014, please enter your average employment...					
	Summer (May-Sept)		Remainder (Jan-April, and Oct-Dec)		Percent Non-Alaska Resident	
	Full Time	Part Time	Full Time	Part Time	Full time	Part time
A. Direct Employees						
B. Contract Employees***						

\*\*\* If you had contract employees in 2014, please list the businesses they worked for so we can ensure we do not double-count any employment. Thank you! Business(es) the contract employees worked for: \_\_\_\_\_

## GROSS EXPENDITURES

For the following questions please tell us about the 2014 expenditures for the airport business for which you are reporting. Remember, all of your responses will be held in complete confidence and will only be reported in aggregate for the entire airport. This form will be destroyed at the end of this study.

### 3. Approximately how much money did your business at the Juneau Airport spend in each of the following categories in 2014?

A. Direct Employment Salaries and Benefits	\$
B. Contract Employment Salaries and Benefits	\$
C. Capital Project Expenditures	\$
D. Proprietors Income (if you are a self-employed business owner, this is the income reported on federal taxes <u>for your airport business</u> )	\$
E. CBJ Sales Tax, Property Tax, and any CBJ License Fees	\$
F. All Other Operating Expenditures (rent, etc.) Related to Your Airport Lease(s)	\$

### 4. Approximately what percentage of your 2014 Juneau Airport business expenditures were purchased from vendors located in Juneau, or in other places in Alaska, for the following categories?

Category	Approximate Percentage Spent on Vendors in Juneau	Approximate Percentage Spent on Vendors in Other Places in Alaska
A. Capital Project Expenditures	%	%
B. All Other Operating Expenditures	%	%

## THANK YOU FOR COMPLETING THIS SURVEY

THERE ARE FOUR WAYS TO RETURN THE SURVEY TO US (by January 11):

1. Complete the survey online – to do this go to <http://bit.ly/JNUAirportEconomicStudy>
2. Mail the completed paper survey back in the enclosed self-addressed and stamped envelope (mail to: Sheinberg Associates / 1107 West 8<sup>th</sup> Street, Suite 4 / Juneau AK 99801)
3. Fax the completed paper survey back (both sides) to 907-586-2331
4. Provide the information over the phone by calling Sheinberg Associates at 907-586-3141

If you have any questions about the survey, please call Barbara at 907-586-3141. If you would like to receive the results of this Juneau International Airport Economic Impact Assessment, please check here