

WSDOT Aviation

Aviation Economic Impact Study

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About the Aviation Economic Impact Study

WSDOT Aviation Division is conducting a study on the role aviation plays in Washington's economy.

The Aviation Economic Impact Study is:

- Supported by a grant from the Federal Aviation Administration (FAA).
- An update to the 2001 Economic Impact Study.
- A collaborative effort with stakeholders.

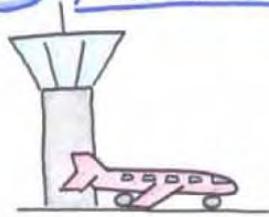
The State's Aviation System

This study examines the 135 public use airports located in 36 of the state's 39 counties. These airports are an economic engine for the state and integral to the transportation system.



Approach: Three Perspectives on Economic Contribution

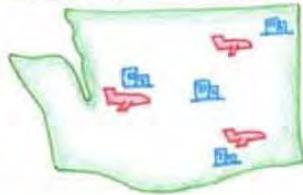
1 AIRPORT



An airport's economic impacts (jobs, wages, spending) from:

- ① Businesses at the airport
- ② Spending by visitors passing through the airport

2 INDUSTRY



The role of aviation in the broader economy and the relationship between aviation and selected industries

3 USERS



The value individuals derive from their use of aviation facilities and services

Final Products

Economic Assessment Report

- Describe and measure economic impacts.
- Describe the relationship between aviation and businesses, economies, and communities across the state.
- Address policy considerations.

135 Airport Profiles

- Summary of operational attributes and economic impacts by airport.
- Available online and designed to be updated automatically through the Aviation Information Database.

Online Economic Calculator

- Publicly available online decision-making tool to conduct what-if analyses about changes to an airport and its operations.

Where Are We in the Process?

- **Completed outreach to 135 airports.** In the process of finalizing all inputs.
- **Four advisory committee meetings held** to solicit feedback on approach, findings, and policy considerations.
- **First draft of report complete.** Final draft slated for completion in February 2012.
- **Online economic calculator still under development** with expected completion in Spring 2012.

Preliminary Findings

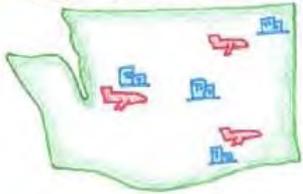
Findings By Perspective

1 AIRPORT



- Economic impacts are **significant** and **concentrated** at four large airports.
- Significant share of activity on through-the-fence connections (**aircraft manufacturing**).

2 INDUSTRY



- **97% of state Gross Business Income (GBI)** within 10 miles of an airport.
- Some industries concentrated near airports, some less so, but **many depend on aviation for critical business factors** (markets, inputs, labor).

3 USERS



- Immense value derived from other aviation services **not captured by traditional impact analysis**.
- User value **important for smaller communities** where airports provide a valuable link to services, commerce, and the broader aviation network.

Airport Perspective

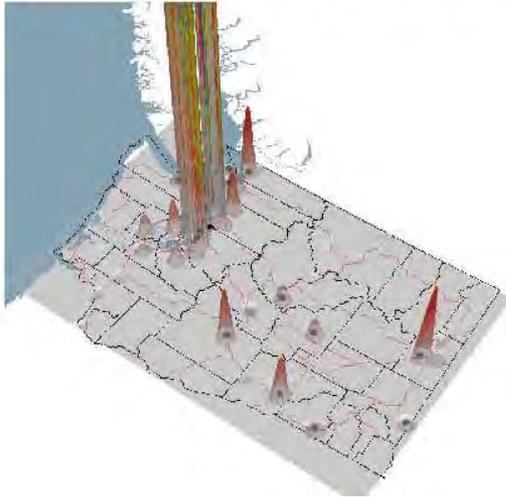
Why is this perspective important?

- This is traditional economic impact analysis under FAA guidelines.
- Direct, quantifiable estimate of jobs, wages, and economic activity associated with aviation facilities and services.
- Particularly important for airports with large amounts of on-site business activity or visitor traffic.



Airport Perspective: Overall Impacts and Comparisons to 2001

Economic Impacts of Airport Activity



Summary of Statewide Impacts

	Direct	Indirect/ Induced	Total
Jobs	141,350	107,150	248,500
Labor Income	\$ 9.9 B	\$ 5.4 B	\$ 15.3 B
Output	\$ 34.8 B	\$ 16.1 B	\$ 50.9 B

Impacts in 2001 Study

	Direct	Indirect/ Induced	Total
Jobs	98,100	73,211	171,311
Labor Income	\$ 1.9 B	\$ 2.2 B	\$ 4.1 B
Output	\$ 11.9 B	\$ 6.8 B	\$ 18.6 B

- Impacts are concentrated in the Central Puget Sound - four airports account for **91% of jobs and 95% of output**. The three airports with major aircraft manufacturing activity account for **49% of jobs and 69% of output**.
- Overall impacts are higher than 2001 study but several factors are at play. The largest influence is the addition of Boeing and through-the-fence connections in this study.

Airport Perspective: Airports with Greatest Activity

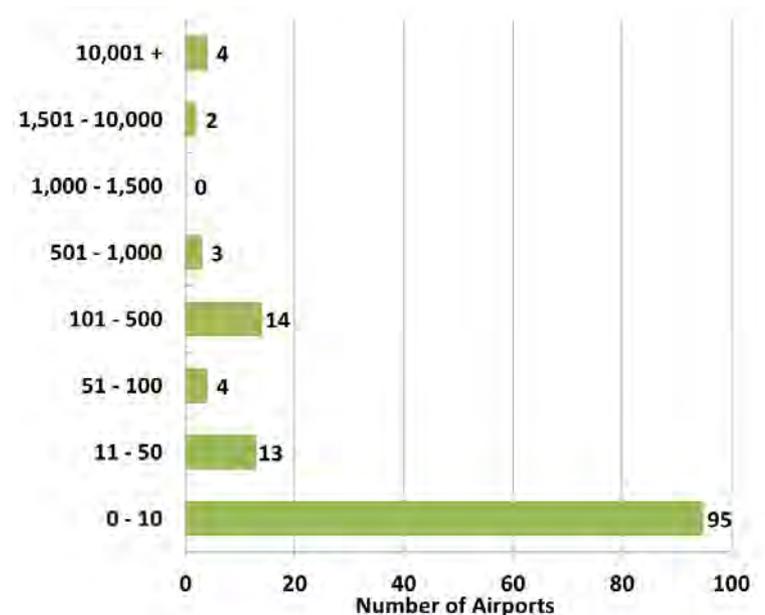
Airport Name	Direct Jobs			Total Direct Output	Direct Output per Direct Job
	Visitor Spending	On-site Businesses	Total Direct Jobs		
Sea-Tac International	54,699	9,914	64,613	7,013.9 M	108,552
Snohomish County/Paine Field	26	34,262	34,288	14,864.5 M	433,516
Boeing Field/King County International	222	18,408	18,630	6,387.9 M	342,879
Renton Municipal	24	10,268	10,292	4,933.9 M	479,388
Spokane International	3,877	2,020	5,897	718.9 M	121,913
Bellingham International	994	616	1,610	160.1 M	99,453
Tri-Cities	561	346	907	100.2 M	110,390
Yakima Air Terminal	112	543	655	89.1 M	136,086
Arlington Municipal	27	566	593	94.5 M	159,282
Skagit Regional	23	346	369	41.3 M	111,867
Kenmore Air Harbor SPB	79	232	311	34.4 M	110,355
All Other Airports	769	2,392	3,161	374.2 M	118,412

- The airports with greatest aviation-related activity are commercial service or regional airports.
- Washington State is unique in that aircraft manufacturing activity plays a significant role in generating jobs and economic impacts.

Airport Perspective: Impacts at Smaller Airports

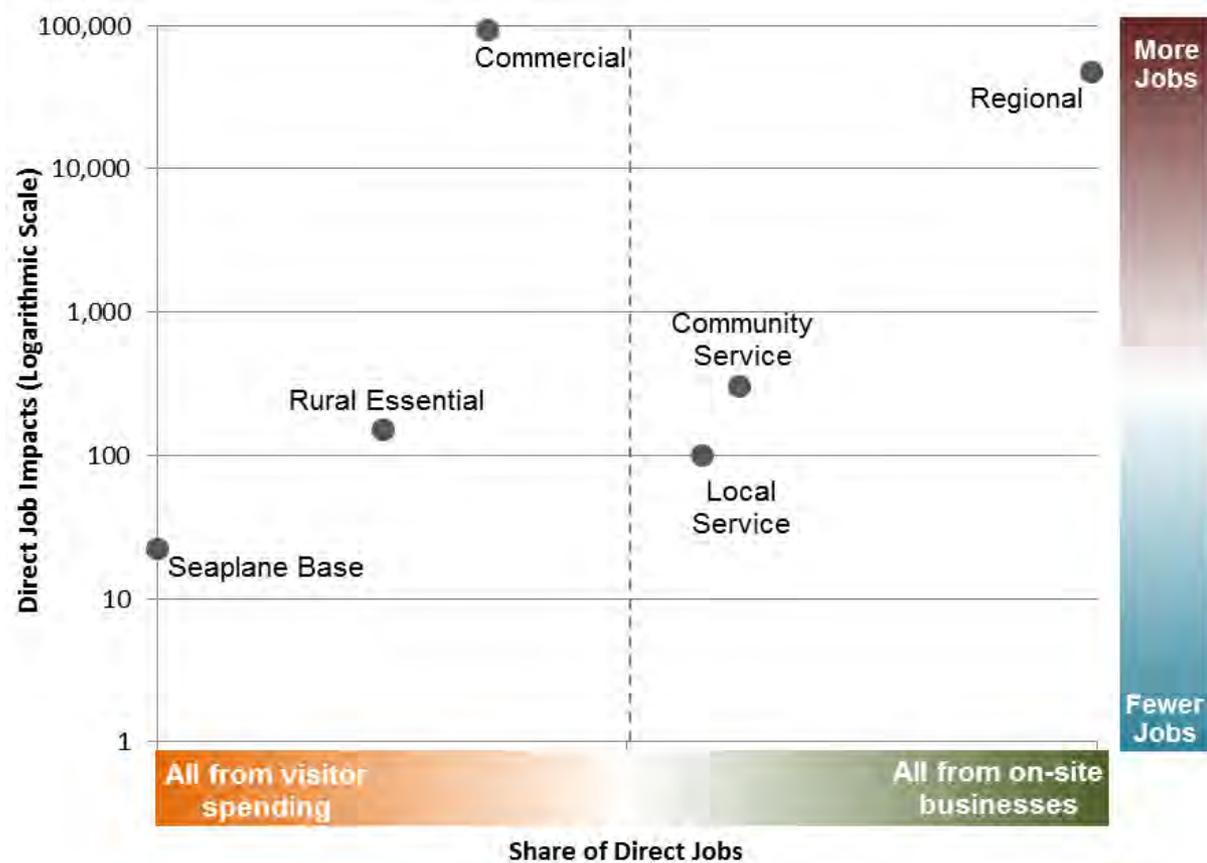
- 95 airports have 10 or fewer jobs.
- The economic contribution of aviation services at these smaller airports is **not fully captured in traditional measures of jobs, wages, and output.**
- Different ways to look at economic contribution are presented in the Industry Perspective and User Perspective sections.

Distribution of Job Impacts



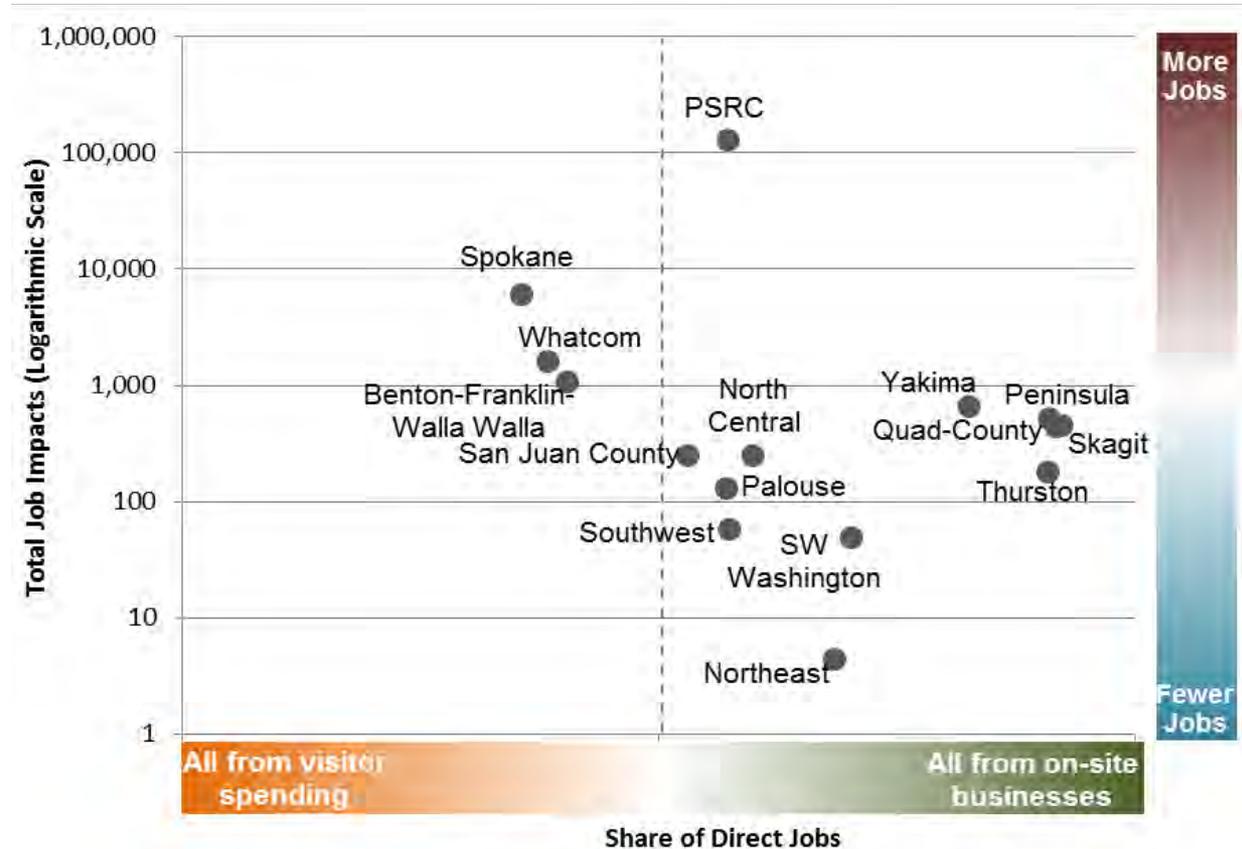
Airport Perspective: Impacts by Airport Classification

- Regional and commercial categories account for over 99% of total jobs and output.
- Regional, Community Service, and Local Service airports tend to have more impacts from on-site businesses.
- At Commercial, Rural Essential, and Seaplane Base airports, visitor spending generates the majority of jobs and output.



Airport Perspective: Impacts by RTPO

- All RTPOs in the State have either a Commercial or Regional airport.
- Visitor spending accounts for a greater share of impacts for RTPOs with larger commercial airports.



Airport Perspective: Fiscal Impact Analysis

Classification	Aircraft Excise Tax	Aviation Fuel Tax*	Sales and Use Tax**	Property Tax***	B&O Tax	Other	Total
Commercial	144,000	471,000	390,277,000	30,335,000	121,000,000	115,228,000	657,455,000
Regional	235,000	829,000	7,724,000	13,804,000	98,980,000	6,227,000	127,799,000
Rural Essential	49,000	124,000	680,000	1,628,000	89,000	163,000	2,733,000
Community Service	105,000	364,000	923,000	604,000	401,000	334,000	2,731,000
Local Service	19,000	60,000	132,000	255,000	169,000	37,000	672,000
Seaplane Base	1,000	0	112,000	53,000	10,000	26,000	202,000
Total	553,000	1,848,000	399,848,000	46,679,000	220,649,000	122,015,000	791,592,000
% of Total	0.1%	0.2%	50.5%	5.9%	27.9%	15.4%	

* Fuel used for commercial aviation is exempt from the state aviation fuel tax.

** Includes sales and use tax paid on general and commercial aviation fuel.

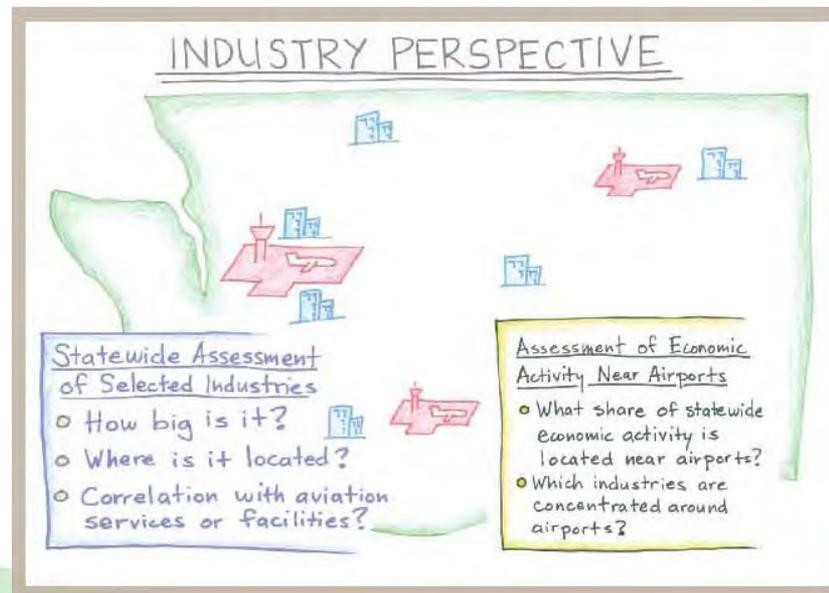
*** Includes taxes paid on airline service providers' personal property.

- Public-use airports generated about \$790M in tax revenue in 2009.
- 99% of impacts are from commercial (83%) and regional airports (16%)
 - Sales tax accounts for 51% of total, B&O tax accounts for 28%
 - About \$548M (69%) of this revenue goes to the state. The rest is split fairly evenly amongst cities, counties, and special purpose districts.

Industry Perspective

Why is this perspective important?

- Looks at relationships between aviation and businesses beyond the limited airport footprint.
- Important to capture the ways in which aviation affects business factors of production and location decisions.
- This is something that has not been done before.



Industry Perspective: Economic Activity Near Airports

- Economic activity and aviation are **intrinsically linked**.
- Airports play an important role for many industries core business needs: **access to markets, access to inputs of production, and access to labor**.
- Gross Business Income appears to be **equally concentrated** around commercial and non-commercial airports.
 - 36% near commercial airports
 - 34% near non-commercial airports



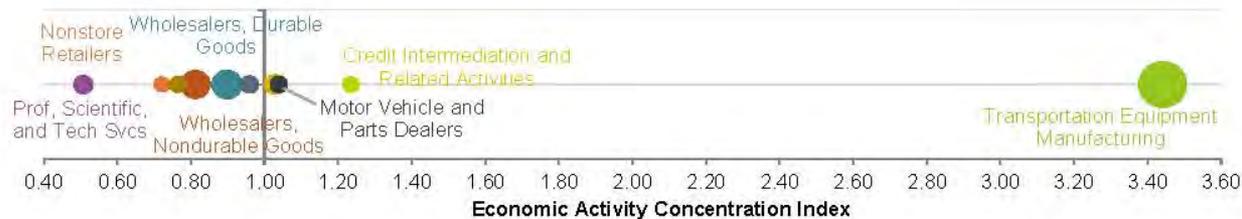
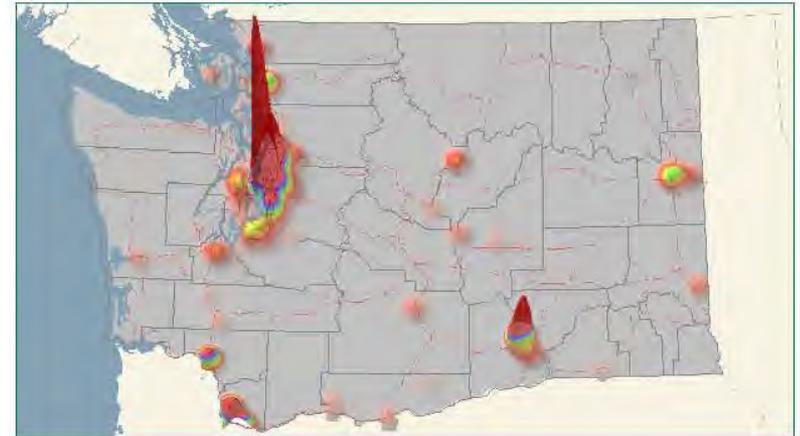
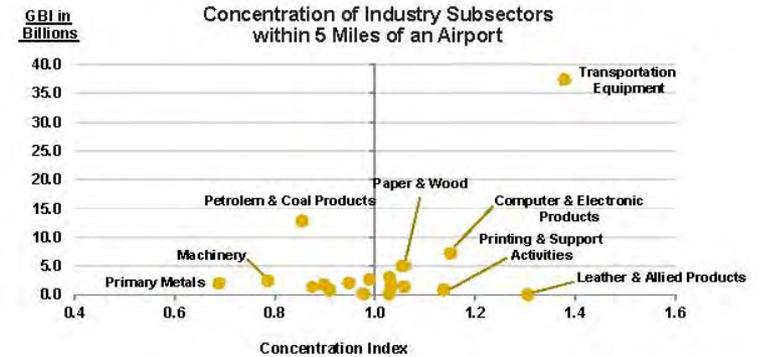
Share of State GBI

Within 5 miles: 70%

Within 10 miles: 97%

Industry Perspective: Selected Industry Analysis

- Analysis of industry concentrations around specific airport types.
- Assessment of five industry clusters and their relationship to aviation services.
- Found a variety of ways in which businesses use aviation.



Industry Perspective: Impact Numbers Don't Tell the Full Story

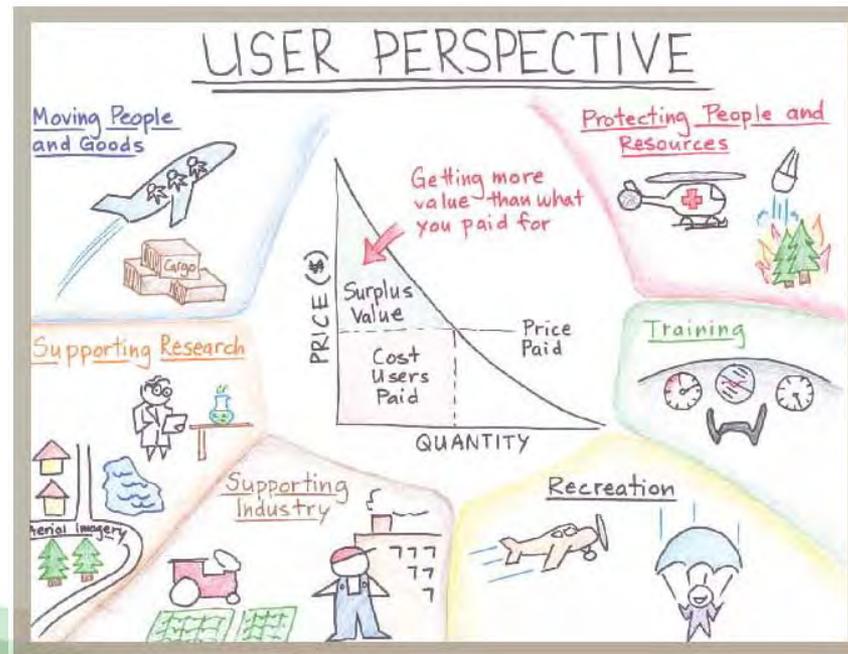
Examples of Off-Airport Businesses that Use Aviation

- **PETNET Solutions.** Radiopharmacy network in Mountain West region. Uses isotope with **eight-hour half-life**.
- **Pacific Cataract and Laser Institute.** Network of eye clinics. Business model based on **flying specialized surgeons** throughout clinic network to maximize efficiency.
- **Tek Construction.** Construction and engineering firm that uses small aircraft to **transport workers to remote work sites** throughout state.
- **Cherry Farmers.** Use **helicopters to dry cherries** and prevent cracking of fruit.

User Perspective

Why is this perspective important?

- Looks at the value users derive from all types of aviation services.
- Includes benefits not captured in traditional economic impact analysis of jobs, wages, and output.
- This perspective particularly demonstrates the importance airports have in smaller communities.



User Perspective: 17 Activities Users Derive Benefits From

- **Moving people and goods.** Commercial passenger service; corporate travel; personal travel; pilot training; air cargo; and blood, tissue, and organ transportation.
- **Supporting industry.** Analysis considered two examples: Aircraft manufacturing and agriculture.
- **Protecting people and resources.** Medical air transport, search and rescue, firefighting, national security, and emergency response.
- **Supporting research.** Scientific research and aerial photography.
- **Flying for recreation.** Aerial sightseeing and skydiving.

User Perspective:

Impact Numbers Don't Tell the Full Story

Value of Medical Air Transport

- For traumatic injuries, access to treatment during the first hour can save lives and prevent long-term disability.
- Air transport grants access to medical facilities to people who do not live near them.
- Air transport saves 5.6 more lives per 100 patients than ground transport.
- The value to users (a life saved) is far in excess of the jobs and wages associated with this activity.

Omak Municipal: Value of an Airport to a Smaller Community

- Medical air transport, cargo, agricultural spraying, law enforcement.
- Spotlight on wildland firefighting.
- The airport supports seven jobs and limited Gross Business Income but the value to the community is much higher because of the services the airport gives them access to.

Policy Implications

The report will not include recommendations but findings will inform a variety of policy discussions:

- New messages/themes about the benefits of aviation:
 - **Diversity** of users, services, and benefits
 - Strength as an interconnected **system**
- Economic benefits are significant. Unique in Washington is the importance of aircraft manufacturing.
- Understanding the value of airports in rural communities.
- Cost issues must also be considered.

Sample Airport Profile

Renton Municipal

616 West Perimeter Road, Unit A, Renton, WA, 98057



Text about your airport here . . .

NOTE: Data on this page comes from the WA Airport Information System Database (AIS).

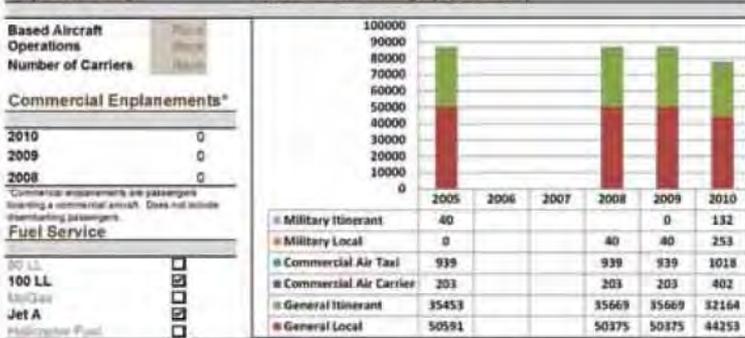
AIRPORT CHARACTERISTICS

Location		Service Classification	
Legislative Dist:	37	Federal:	Reliever Airport
Associated City:	Renton	State:	Regional
County:	King		
Organizational Structure		Runway(s)	
Ownership Type:	City Govt.	Number:	1
Owner:		Type(s):	Asphalt
		Type of Airport	
		FAA: D-14000	

AIRPORT ACTIVITY

Activities (Based/Transient)	Based Aircraft	Number of Carriers
<input type="checkbox"/> Agricultural Spraying	<input type="checkbox"/> Jet	2
<input type="checkbox"/> Air Ambulance	<input type="checkbox"/> Multi-Engine	12
<input type="checkbox"/> Medical Transport	<input type="checkbox"/> Single-Engine	257
<input type="checkbox"/> Airplane Parts Manufacturing	<input type="checkbox"/> Rotor Based	4
<input type="checkbox"/> Aerial Surveying	<input type="checkbox"/> Total	300
<input type="checkbox"/> Wilderness Flightseeing	<input type="checkbox"/> Fixed Based Operators	
<input type="checkbox"/> Skydiving/Parachute Drops	<input type="checkbox"/> AIS Last Updated: 12/21/2010	
<input type="checkbox"/> Aerial Tows	<input type="checkbox"/> No. of FBOs	2
<input checked="" type="checkbox"/> Civil Air Patrol	<input type="checkbox"/> Other Ground Transportation	<input checked="" type="checkbox"/>
<input type="checkbox"/> Cargo Activity		
<input checked="" type="checkbox"/> Flight Training		
<input type="checkbox"/> Commercial Air Carrier Activity		

Airport Rankings



Renton Municipal

616 West Perimeter Road, Unit A, Renton, WA, 98057

Airport Businesses and Visitors

Economic and Fiscal Impacts calculated for each airport start with activity that can be directly associated with the airport, namely the businesses operating at the airport and the visitors traveling through the airport. From this initial activity, multiplier effects are estimated as wages and other spending are re-spent in the local economy. Impacts of airport businesses are analyzed within the defined economic impact region, visitor spending is analyzed statewide.



ECONOMIC IMPACTS

AIRPORT BUSINESSES

Counties in Impact Region: King
Total Gross Business Income: Estimated annual revenue received by all businesses located on the airport footprint.
Direct Jobs: Estimated jobs supported by the total Gross Business Income on the airport footprint.
Direct Labor Income: Estimated income paid to the Direct Jobs located on the airport footprint.
Direct Total Output: Estimated portion of total Gross Business Income that will cycle through the economic impact region.
Indirect/Induced Impacts: Increases in regional impacts from the local re-spending of direct dollars.
Total Impacts: The sum of Direct, Indirect, and Induced Impacts, for a total regional impact.

Estimated Regional Impact from Airport Businesses

Total Estimated Gross Business Income:	\$ 38,018,612,723		
Estimated Economic Impact	Direct	Indirect/Induced	Total Impact
Jobs	10,286	8,483	18,769
Labor Income	\$ 1,296,207,162	\$ 452,210,130	\$ 1,748,423,292
Total Output	\$ 2,877,749,810	\$ 774,506,424	\$ 3,652,256,234

VISITOR SPENDING

Impact Region: Washington State
Total Visitor Spending: Estimated total annual average spending by visitors traveling through this airport.
Direct Jobs: Estimated jobs supported by the total estimated visitor expenditures.
Direct Labor Income: Estimated income paid to the Direct Jobs supported by visitor expenditures.
Direct Total Output: Estimated total visitor expenditures, which are all assumed to occur within the economic impact region.
Indirect/Induced Impacts: Increases in regional impacts from the local re-spending of direct dollars.
Total Impacts: The sum of Direct, Indirect, and Induced Impacts, for a total regional impact.

Estimated Regional Impacts from Visitor Spending

Total Estimated Visitor Spending:	\$ 4,165,400		
	Direct	Indirect/Induced	Total Impact
Jobs	41	22	63
Labor Income	\$ 1,193,999	\$ 1,037,785	\$ 2,231,784
Total Output	\$ 3,858,136	\$ 3,198,381	\$ 6,856,617

FISCAL IMPACTS

Estimated Taxes Paid to Each Jurisdiction

	Cities	County	SP Dist	State	Total Taxes
Airport Businesses	\$ 1,737,800	\$ 279,800	\$ 1,153,800	\$ 24,594,000	\$ 27,766,000
Visitors	\$ 39,800	\$ 40,400	\$ 41,600	\$ 209,900	\$ 331,700
Total	\$ 1,777,400	\$ 320,000	\$ 1,195,400	\$ 24,803,900	\$ 28,096,700

NOTE: The tax estimates include Aircraft Excise Tax, Property Tax, Business & Occupation Tax, Sales Tax, Aviation Fuel Tax, State and Local Utility Taxes, Rental Car Tax, and Lodging Tax.



DISCUSSION DRAFT

8/19/2011



DISCUSSION DRAFT

8/19/2011

Next Steps

- Finalize report and airport profiles
- Complete the online calculator tool

Questions?

For more information on the Aviation Economic Impact Study,
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