WSDOT AVIATION DIVISION

Aviation Economic Impact Study

Advisory Committee Meeting #4

Puget Sound Regional Council | Seattle, WA

November 1, 2011

Welcome!

These materials were presented to the WSDOT Aviation Economic Impact Study Advisory Committee during the fourth Committee meeting on November 1, 2011.

These are DRAFT materials intended for discussion and are not final products.

DRAFT

Today's Meeting

Objective: Review preliminary draft report and discuss high-level messages and implications of findings

Agenda:

9:00 Welcome & Introductions

9:10 Draft Report Presentation

Objective: Present summary of report and receive input

10:25 *Break*

10:40 Policy Implications of Study

Objective: Discuss policy implications to incorporate in study

11:10 Next Steps

11:20 Roundtable/Discussion

Objective: Provide additional opportunity for input and discussion

11:50 Wrap-up and Thank You

12:00 Adjourn

Draft Report Summary

Where we are in the Process

- Still collecting individual airport data and adjusting numbers. All numbers are still draft.
- Finalizing technical appendices.
- Today soliciting feedback on the Preliminary Review Draft.

Guidance for the Review Today

- High-level comments about tone, key elements, and flow of overall story.
- Other detailed comments will be accepted via email.

Study Objectives

- Estimate **economic benefits** of the **statewide aviation system** (135 public-use airports) to the state
- Use a **consistent** methodology that can be **replicated**
- Support aviation planning and programmatic efforts under the **Washington Aviation System Plan**

Report Objectives

- Create an **approachable** and **compelling** report targeted to policy makers and other stakeholders
- Tell the story of economic contributions provided by aviation facilities and services from **multiple perspectives**

Findings by Perspective

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

- **97% of state 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)

- 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

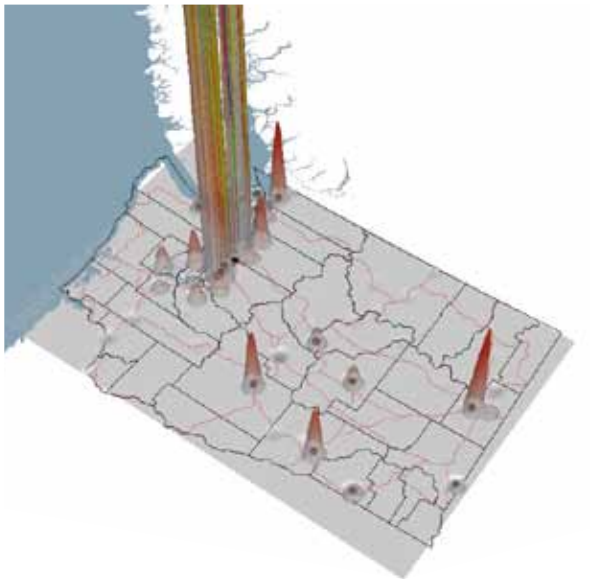
Airport Perspective

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.

Overall Impacts and Comparisons to 2001

EconomicImpactsofAirportActivity



SummaryofStatewideImpacts

	Direct	Indirect/ Induced	Total
Jobs	132,400	97,350	**229,750**
Labor Income	$ 9.3 B	$ 4.9 B	**$ 14.2 B**
Output	$ 32.9 B	$14.7 B	**$ 47.6 B**

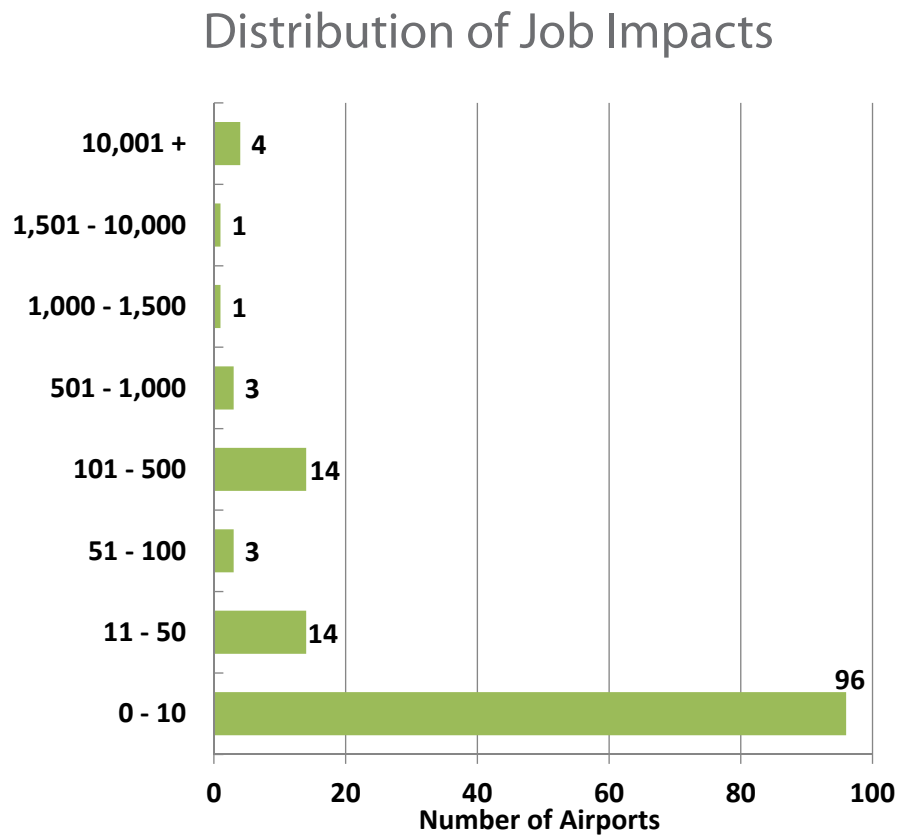
Impacts in 2001 Study

	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**

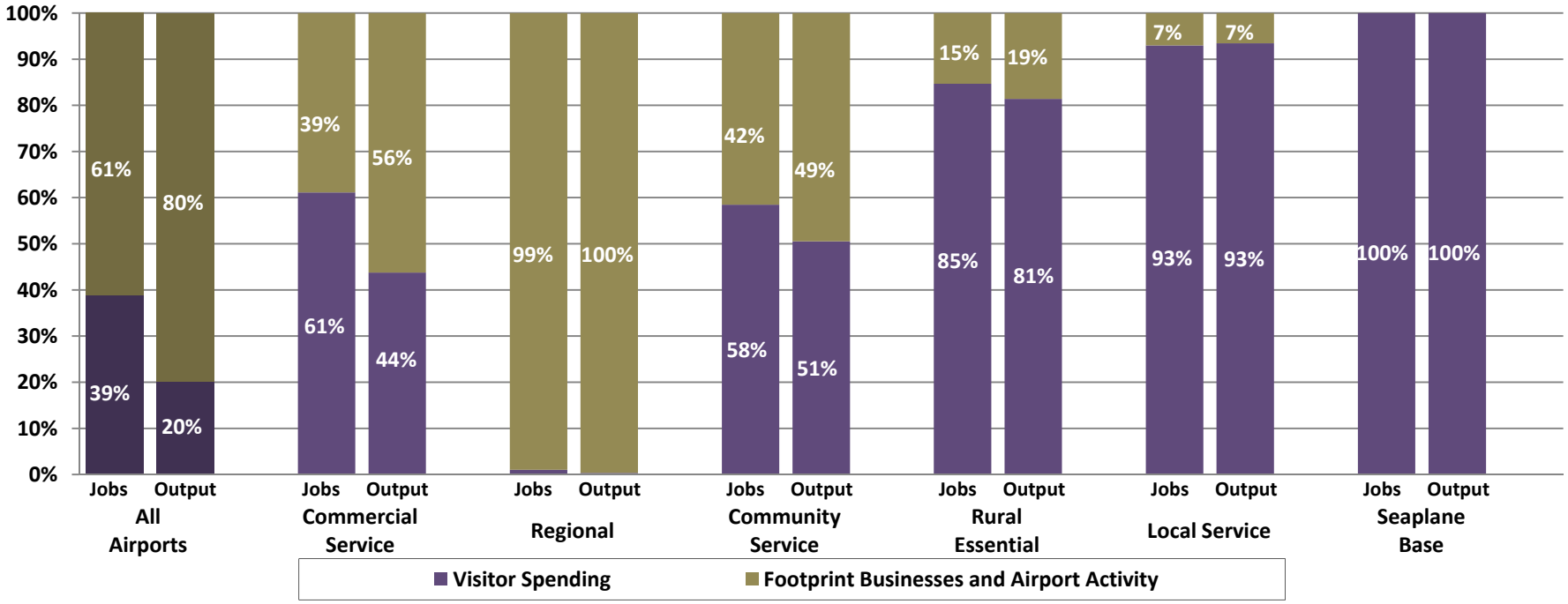
- Impacts are concentrated in the Central Puget Sound - four airports account for **93% of jobs and 96% of output**. The three airports with major aircraft manufacturing activity account for **52% of jobs and 73% of output**.
- Overall impacts are higher than 2001 study but several factors are at play. The largest influence is the addition of Boeing and TTF connections in this study.

Impacts at Smaller Airports

- 96 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.

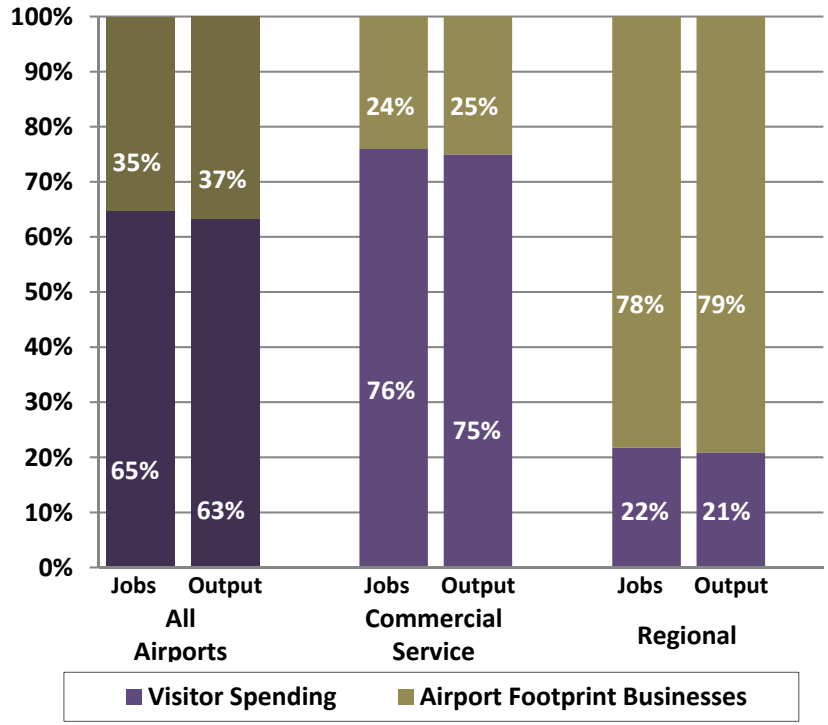


Impacts by Airport Classification



- Regional and commercial categories account for over 99% of total jobs and output.
- Footprint businesses account for 61% of jobs and 80% of output. On regional airports almost all impacts are from footprint businesses (Boeing).
- At Rural Essential, Local Service, and Seaplane Base airports, visitor spending generates the large majority of jobs and output.

What if you Exclude the Big Four?



- Statewide, businesses on airport footprints account for 35% of total jobs and 37% of total output.
- This is a **swing toward visitor spending** at the Commercial and Regional airports.
- Impacts at Regional airports are still primarily coming from on-site employment

Fiscal Impact Analysis

- Public-use airports generated about $730M in tax revenue in 2009
  - 99% of impacts are from commercial (84%) and regional airports (15%)
  - Sales tax accounts for 55% of total, B&O tax accounts for 24%
  - About $493M of this revenue goes to the state. The rest is split fairly evenly amongst cities, counties, and special purpose districts.
- Washington provides many tax incentives for the aerospace industry, such as reduced B&O rates for aircraft manufacturers and a fuel tax exemption for commercial service providers.

Summary of Fiscal Impacts by Tax Source

Classification	Aircraft Excise Tax	Aviation Fuel Tax*	Sales and Use Tax**	Property Tax***	B&O Tax	Other	Total
Commercial	142,000	444,000	390,271,000	29,269,000	88,546,000	103,646,000	612,318,000
Regional	248,000	876,000	6,872,000	13,508,000	83,413,000	5,284,000	110,201,000
Rural Essential	52,000	123,000	1,200,000	1,634,000	129,000	316,000	3,454,000
Community Service	106,000	346,000	1,417,000	604,000	379,000	306,000	3,158,000
Local Service	20,000	58,000	274,000	222,000	31,000	71,000	676,000
Seaplane Base	1,000	0	22,000	53,000	2,000	4,000	82,000
Total	**569,000**	**1,847,000**	**400,056,000**	**45,290,000**	**172,500,000**	**109,627,000**	**729,889,000**
% of Total	***0.1%***	***0.3%***	***54.8%***	***6.2%***	***23.6%***	***15.0%***	

** 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.*

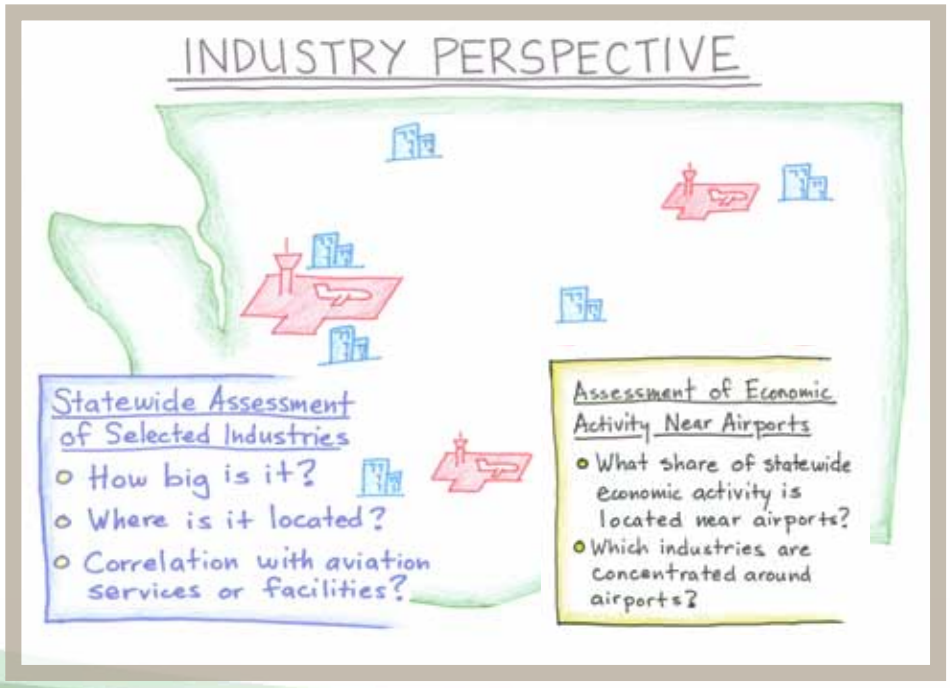
Discussion Questions: Airport Perspective

- Does the report focus on the right issues and findings?
- Is there anything missing?
- Is the emphasis correct?

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.



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.**
- GBI appears to be **equally concentrated** around commercial and non-commercial airports.
  - 36% near commercial airports
  - 34% near non-commercial airports

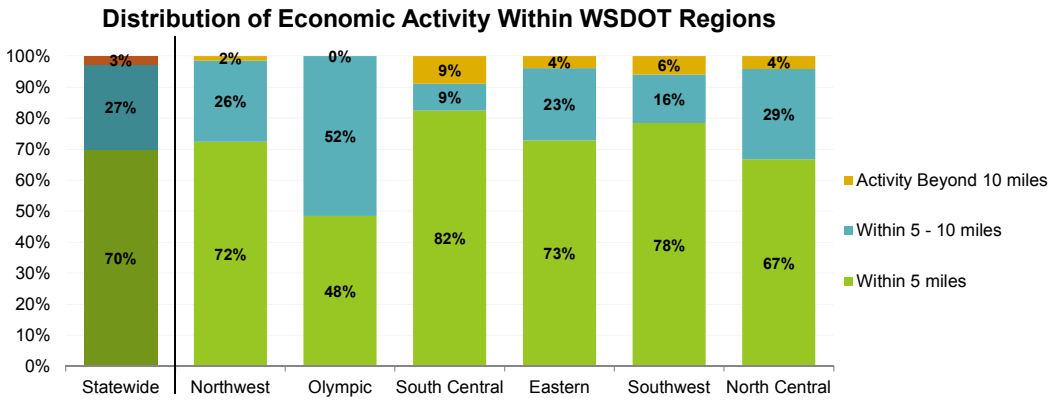
Share of State GBI

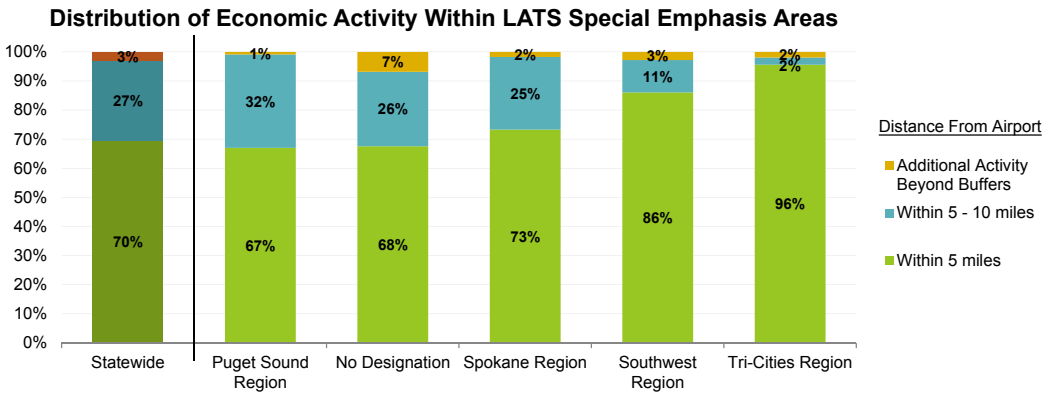
Within 5 miles: 70%

Within 10 miles: 97%

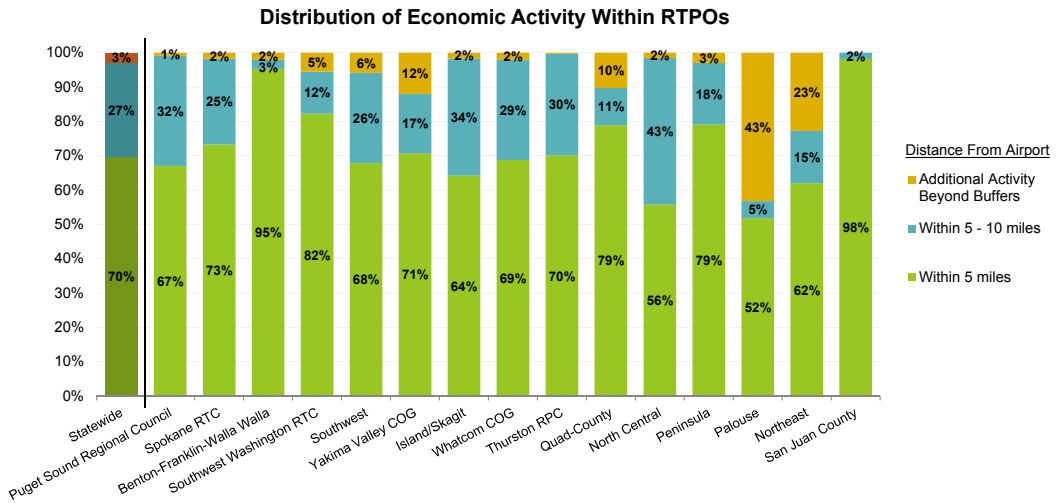
Regional Concentrations Around Airports

- WSDOT Regions used in report. Likely to shift to an RTPO-based exhibit.



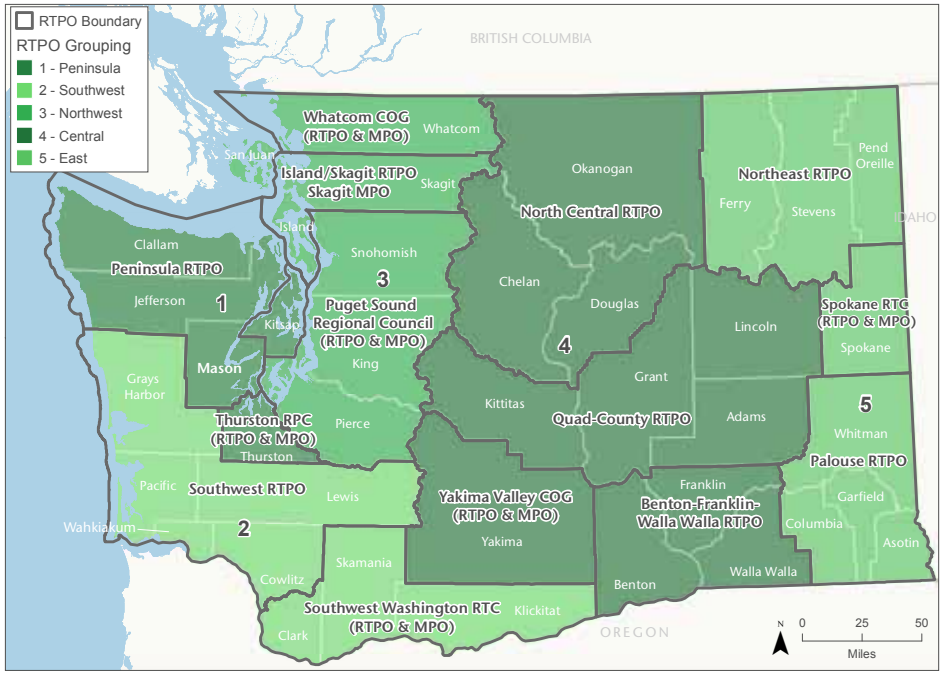


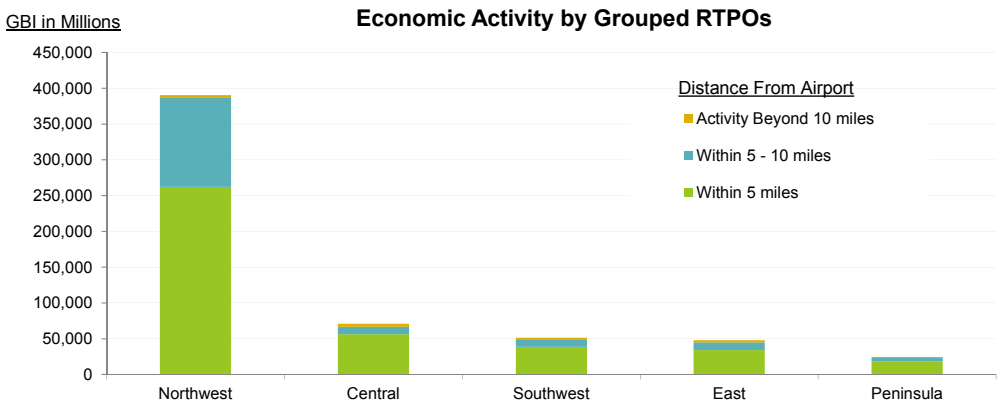
- LATS Special Emphasis Areas only focus on a few regions



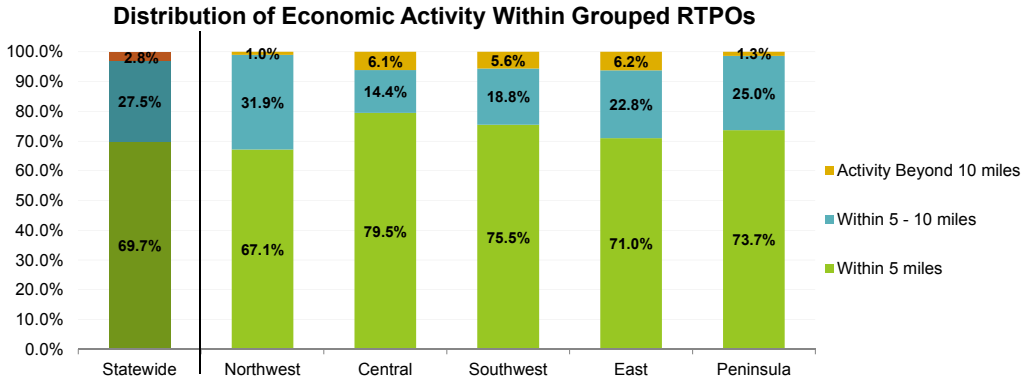
- 14 RTPOs a challenge to represent

Regional Concentrations: Grouped RTPOs



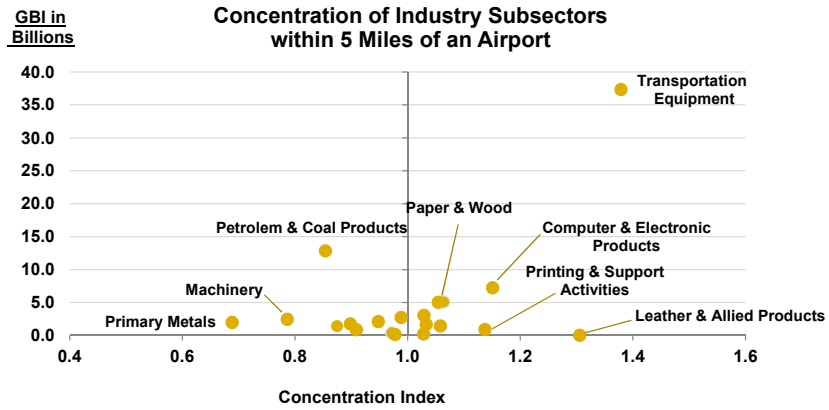


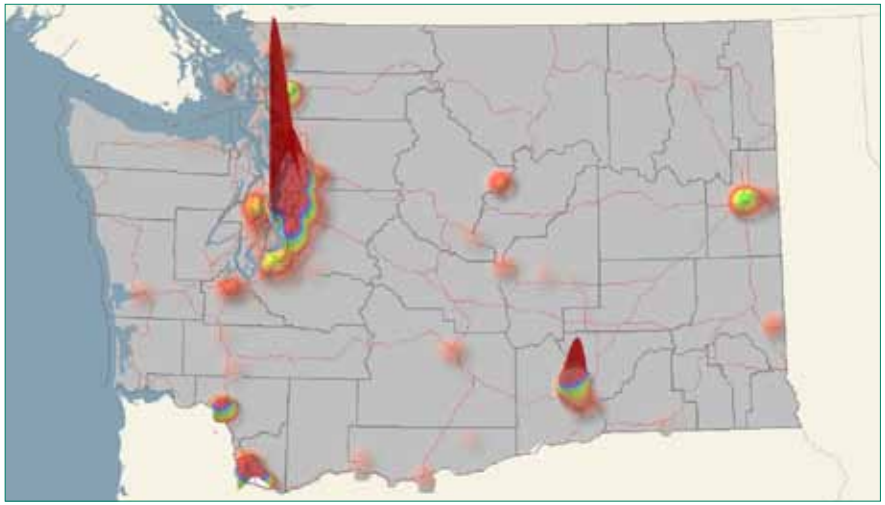
- Examples of RTPO-based exhibits (not currently in draft report)

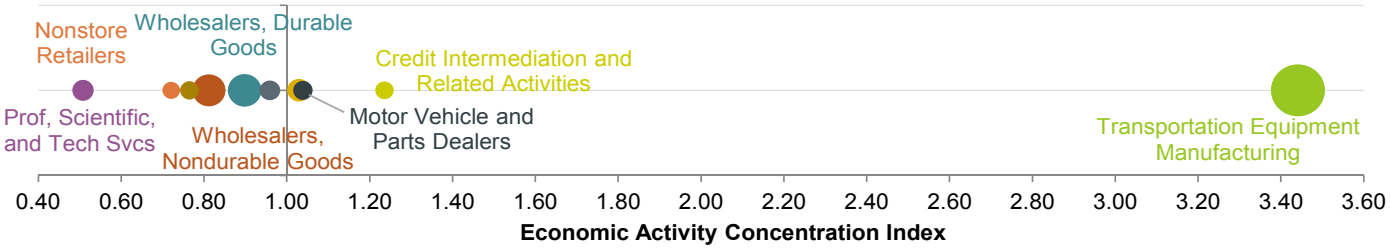


Selected Industry Analysis

- Whether concentrated around airports or not, all industries have some subsectors that depend on aviation services for access to markets, inputs, or labor.
- Wide variety of ways businesses use aviation - more than just business class commercial travel.







Sidebar Examples in Report

Difficult to prove causation but there are numerous concrete examples of ways aviation supports business activity off airport footprints.

- **PETNET Solutions.** Radiopharmacy network in Mountain West region. Uses isotope with **eight-hour halflife**.
- **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.

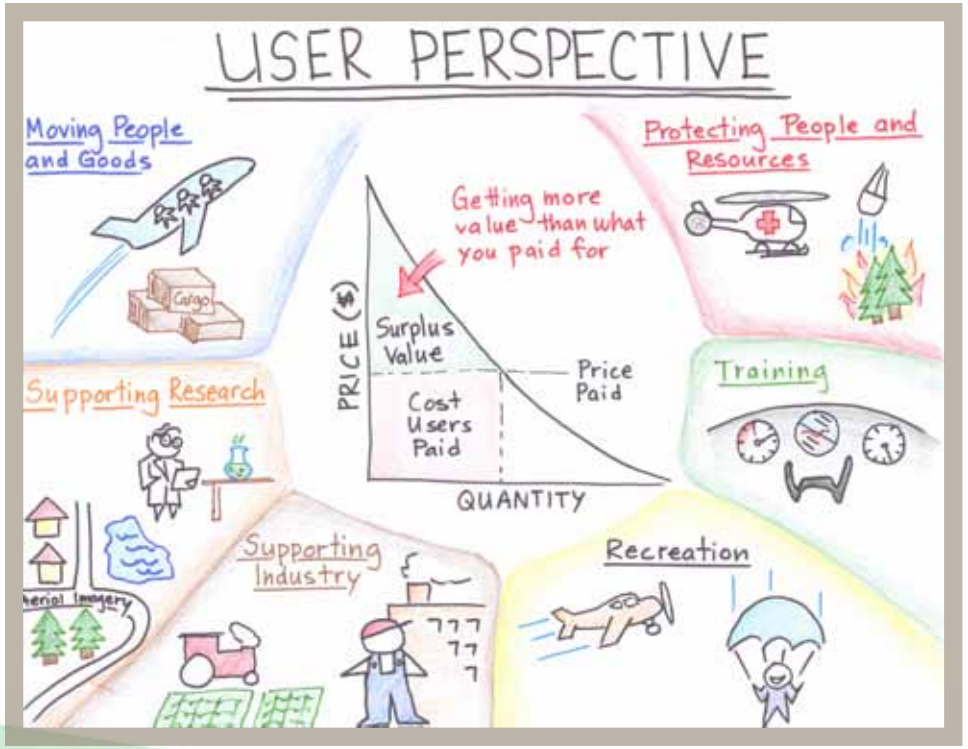
Discussion Questions: Industry Perspective

- Does the report focus on the right issues and findings?
- Is there anything missing?
- Is the emphasis correct?

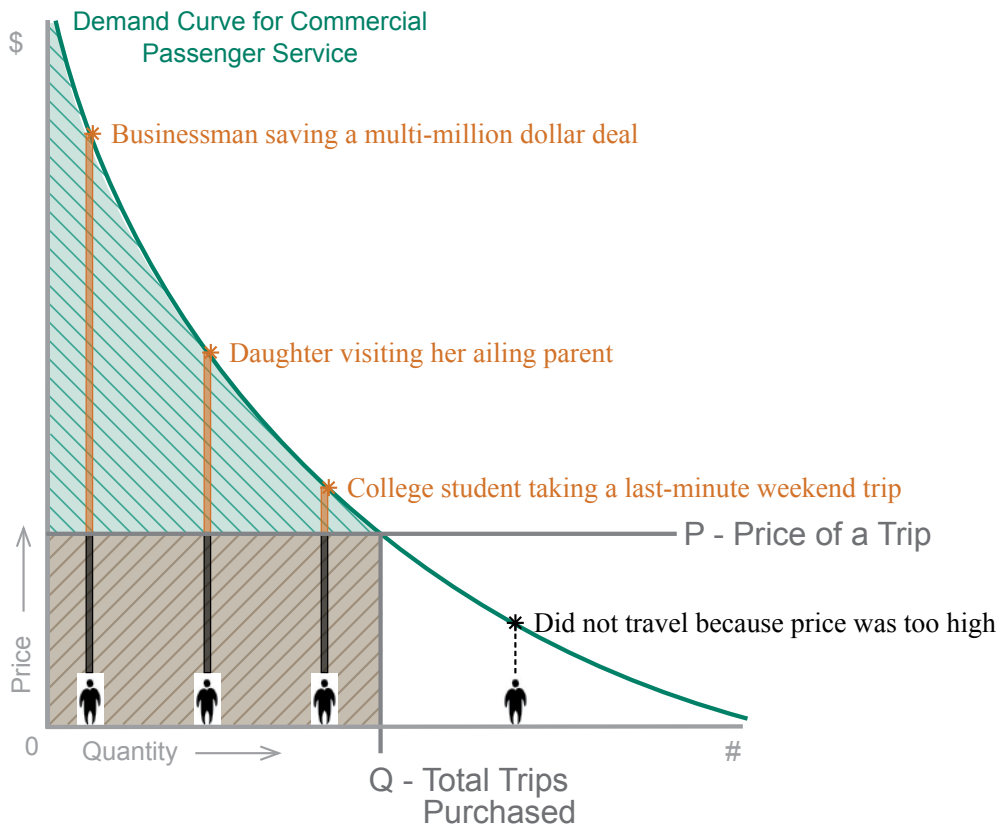
User Perspective

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.



The Concept of User Value



- Getting more than what you paid for
- Where you can find a proxy for value (often by estimating costs paid) the value estimates are immense

17 Activities Users Derive Benefits From

Users benefit from services enabled by aviation facilities.

- **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.

Examples in the Report

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 GBI but the value to the community is much higher because of the services the airport gives them access to.

Discussion Questions: User Perspective

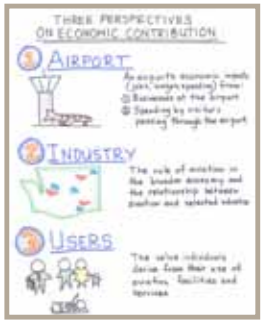
- Does the report focus on the right issues and findings?
- Is there anything missing?
- Is the emphasis correct?

Incorporation of Committee Feedback

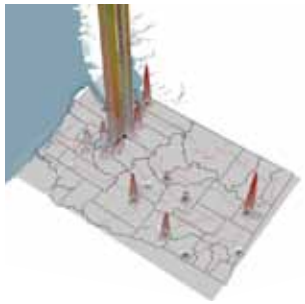
Incorporation of Committee Feedback

Terminology Confusion: Economic Value vs. Economic Benefit

Solution: Adjusted framework to more approachable "3 Perspectives" and incorporated more graphics



Economic Impacts Outside the Largest Four Airports

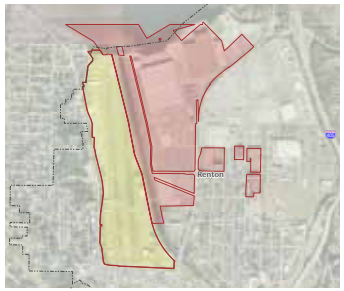


Solution: Included sidebar in report (pg 13)

- Is this sufficient?

Aviation-related Businesses off the Airport Footprint

Solution: Addressed broader impacts through Industry Perspective section and included sidebars on several off-footprint businesses that use aviation in unique ways



- Are the sidebars compelling and useful?

Incorporation of Committee Feedback

Industry Definition of Aerospace - can Suppliers be Included?

Solution: There is no readily available estimate of jobs in the aerospace supplier network. Our industry definition is consistent with the one used by the industry. We included a sidebar on aerospace suppliers (pg 27)

WASHINGTON STATE
AEROSPACE DIRECTORY
Washington State USA
Innovation is in our nature.

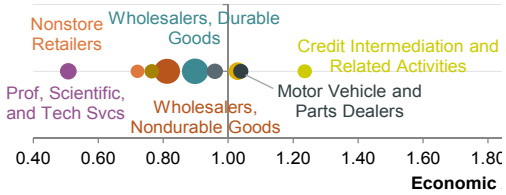
Importance of Non-aviation Tenants to some Airports (particularly those with large amounts of surplus property)

Solution: Included discussion of this point in the Policy Implications section (pg 38) and acknowledge that many of these impacts are captured in individual airport studies (sidebar on pg 14)

Incorporation of Committee Feedback

Questions about how Aerospace Activity Represented in Industry Concentration Analysis

Solution: Changed the allocation mechanism for Boeing activity to base it on jobs rather than retail sales. This improved the analysis.



Use of the Term Correlation in Industry Analysis

Solution: Did not use the term anywhere in the report.

Corporate GA Visitor Spending is Higher than Average

Solution: Researched the issue and adjusted methodology to treat corporate GA spending more like commercial spending. Also added sidebar on diversity and value of corporate aviation activities.

Policy Implications

Policy Implications Section in Report

- Washington State aviation facilities and services provide significant benefits to the state economy, businesses, and communities.
- The report cites obvious implication that economic benefits provided by aviation justify continued investment in the system.
- What other implications should WSDOT be considering as a result of this study?

Policy Context

State Legislative Direction

These are the state's Transportation Policy Goals from RCW 47.04.280)

- Economic Vitality
- Preservation
- Safety
- Mobility
- Environment
- Stewardship

Aviation System Plan

The state has an interest in the following aspects of the state's aviation system:

- Capacity
- Land Use
- Environment
- Safety
- Stewardship
- Economy
- Mobility

Recommendations from LATS and the State Aviation Planning Council

- Aviation Capacity
- Minimizing Land Use Conflicts
- Stewardship of the Aviation System

Next Steps

Report Timeline: Draft to Final

- Accepting report comments until November 11 (two weeks)
- Finalize airport profiles by mid-November
- Technical appendices can be finalized after profiles
- Final report in December

Technology Products Schedule

This a draft working schedule. Since we are still finalizing design, it is difficult to predict the exact schedule of completion and testing. This schedule continues to be updated as needed.

1) Initial design of back-end calculations and interface – complete
2) Finalization of design and building of prototype of calculator tool – October and November, 2011 (currently in process)
3) **Testing of prototype – December 2011**
4) Implementation of changes to AIS and construction of actual interface (by WSDOT OIT) – January and February 2012
5) **Testing of final calculator tool – February and March 2012**
6) Deployment to website – March or April 2012

There will likely be a role for stakeholders to participate in the testing phases.

Roundtable/Discussion

Thank you for your participation!

Say Cheese! (Group Photo Time)

Any other questions or thoughts?
Email Nisha Marvel at: MarvelN@wsdot.wa.gov