

WSDOT AVIATION DIVISION
Aviation Economic Impact Study
Advisory Committee Meeting #3

Spokane Fire Dept. Training Administration Center | Spokane, WA

September 27, 2011

Welcome!

Today's Meeting

- ➔ Objective: Present new findings from the industry and airport-level analyses and gather input prior to the writing of the report

Agenda:

1:00 Welcome & Introductions

1:20 Industry-Level Analysis

- ➔ Objective: Present preliminary findings

2:20 Break

2:35 Revisiting the Airport-Level Analysis

- ➔ Objective: Present roll-ups of economic impact numbers

3:15 Economic Calculator Overview

- ➔ Objective: Provide overview of Calculator features and applications

3:40 Next Steps

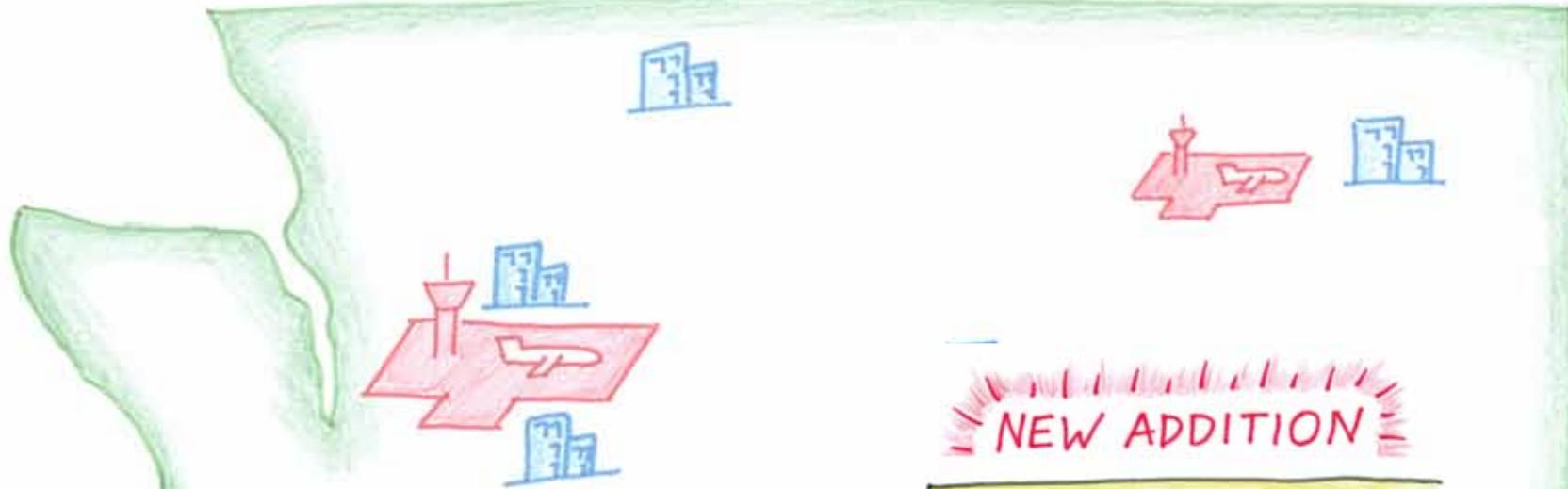
3:50 Round Table Comments

4:00 Adjourn

Industry Level Analysis

Review of Industry-Level Analysis

INDUSTRY PERSPECTIVE



NEW ADDITION

Statewide Assessment of Selected Industries

- How big is it?
- Where is it located?
- Correlation with aviation services or facilities?

Assessment of Economic Activity Near Airports

- What share of statewide economic activity is located near airports?
- Which industries are concentrated around airports?

Review of Industry-Level Analysis (cont.)

Where we are:

- Completed preliminary analysis and findings
- Gathering feedback to improve final product for report

What we will share today:

- Amount of Activity Around Airports: Analysis of Five- and Ten-Mile Buffers Around Airports
- Selected Industry Profiles
- Amount of Activity by Sub-State Geography (WSDOT Regions)

What We Will Share Today



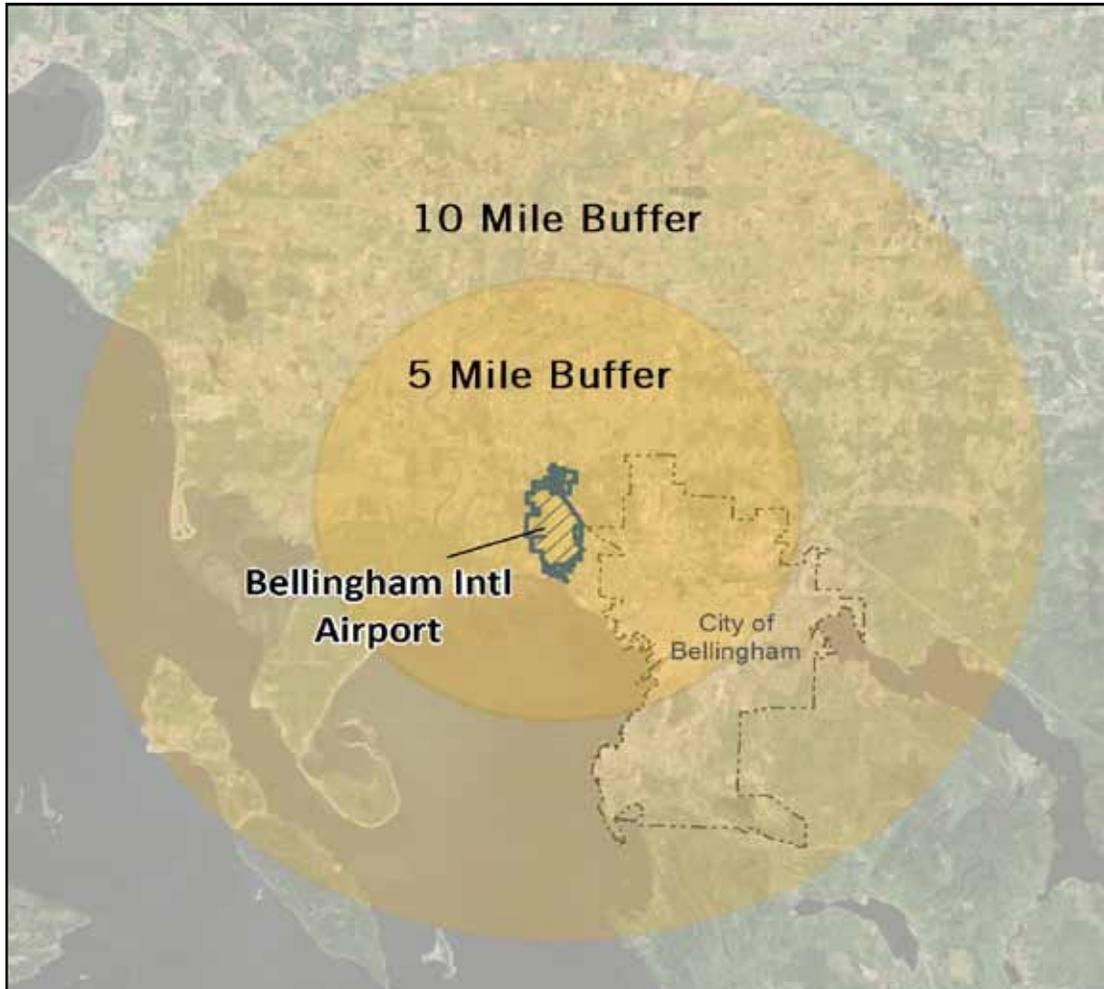
Amount of Activity Around Airports:

Analysis of Five- and Ten-Mile Buffers
Around Airports

Selected Industry Profiles

Amount of Activity by Sub-State Geography
(WSDOT Regions)

Approach To Airport Buffer Analysis



Based on five- and ten-mile buffers from each airport looking at:

- Airports - general business activity located near airports by classification
- Correlations of specific industry concentrations and distribution patterns

Limitations

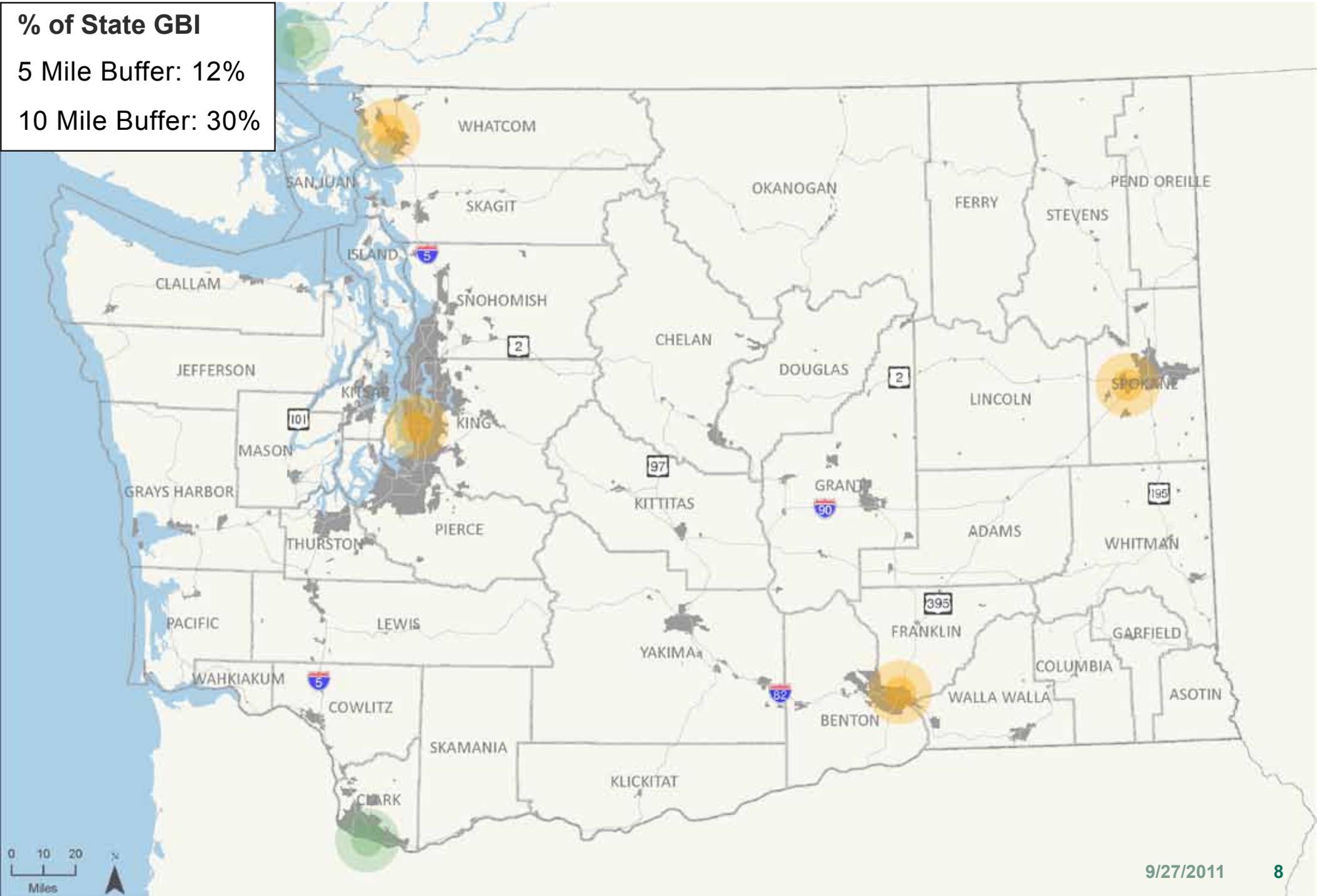
- Causation impossible to establish
- Not all economic activity geo-located
- We are not estimating market areas

WSDOT Airport Classifications

Classification	Description	# Airports	Example Airports
Commercial Service	Accommodates at least 2,500 scheduled passenger boardings per year for at least three years	16	<ul style="list-style-type: none"> • Bellingham International • Sea-Tac International • Spokane International • Tri-Cities
Regional Service	Serves large or multiple communities; all NPIAS Relievers; 40 based aircraft and 4,000-foot long runway, with exceptions.	19	<ul style="list-style-type: none"> • Bremerton National • Olympia Regional • Renton Municipal • Skagit Regional • Snohomish County/Paine Field
Community Service	Serves a community; a least 20 based aircraft; paved runway.	22	<ul style="list-style-type: none"> • Chehalis-Centralia • Chelan Municipal • Lopez Island • Pierce County/Thun Field • Richland
Local Service	Serves a community; fewer than 20 based aircraft; paved runway.	33	<ul style="list-style-type: none"> • Cle Elum Municipal • Davenport Municipal • Port of Ilwaco • Sunnyside Municipal • Willapa Harbor
Rural Essential	Other land-based airports, including residential airparks.	38	<ul style="list-style-type: none"> • Camano Island Airfield • Easton State • Lynden Municipal • Sequim Valley • Tieton State • Vashon Municipal
Seaplane Bases	Identified by FAA as a seaplane base, unless it is a Commercial Service Airport.	8	<ul style="list-style-type: none"> • Friday Harbor SPB • Poulsbo SPB • Roche Harbor SPB • Rosario SPB

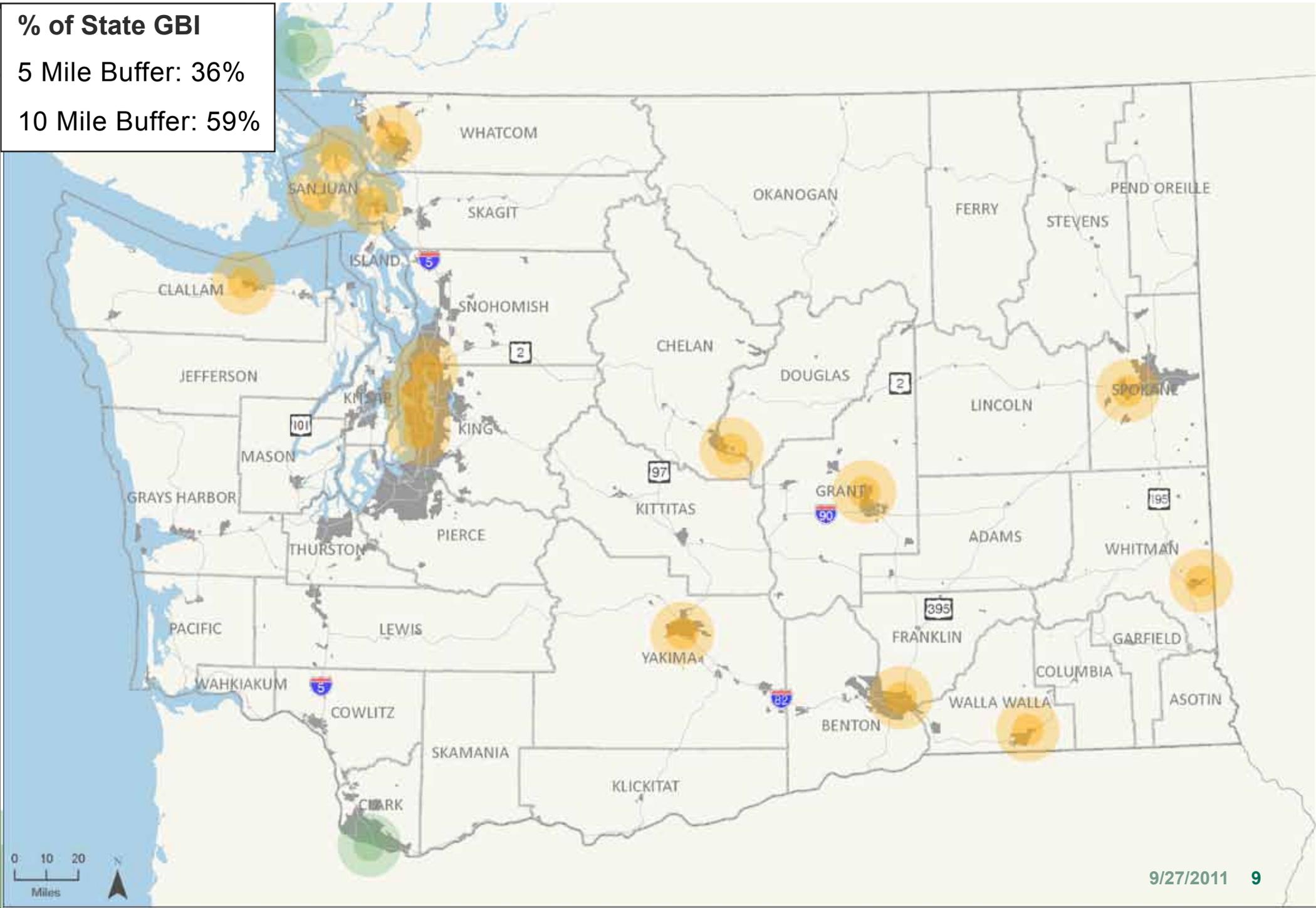
Major Commercial with Portland and Vancouver

% of State GBI
5 Mile Buffer: 12%
10 Mile Buffer: 30%



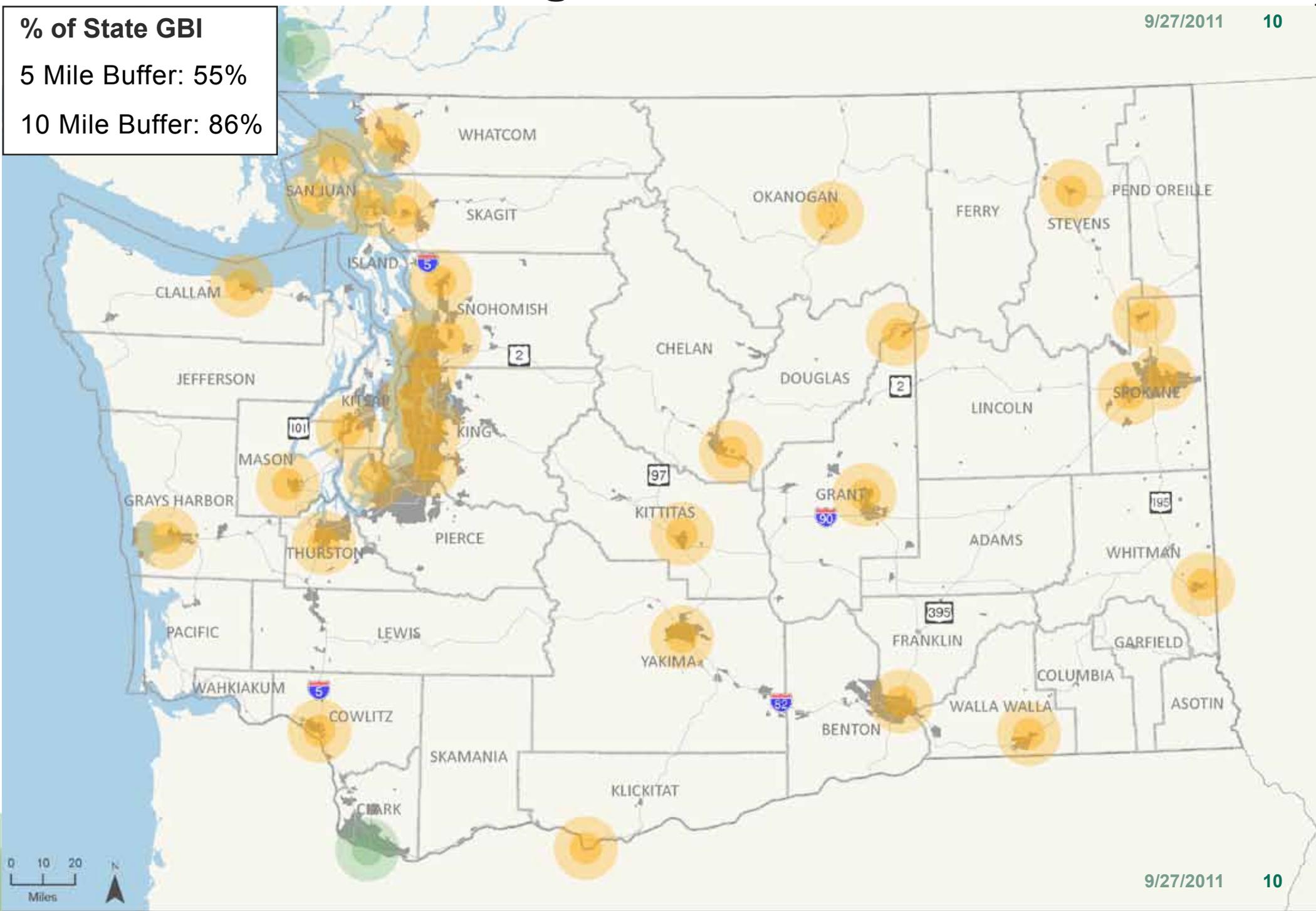
All Commercial

% of State GBI
5 Mile Buffer: 36%
10 Mile Buffer: 59%



Commercial and Regional

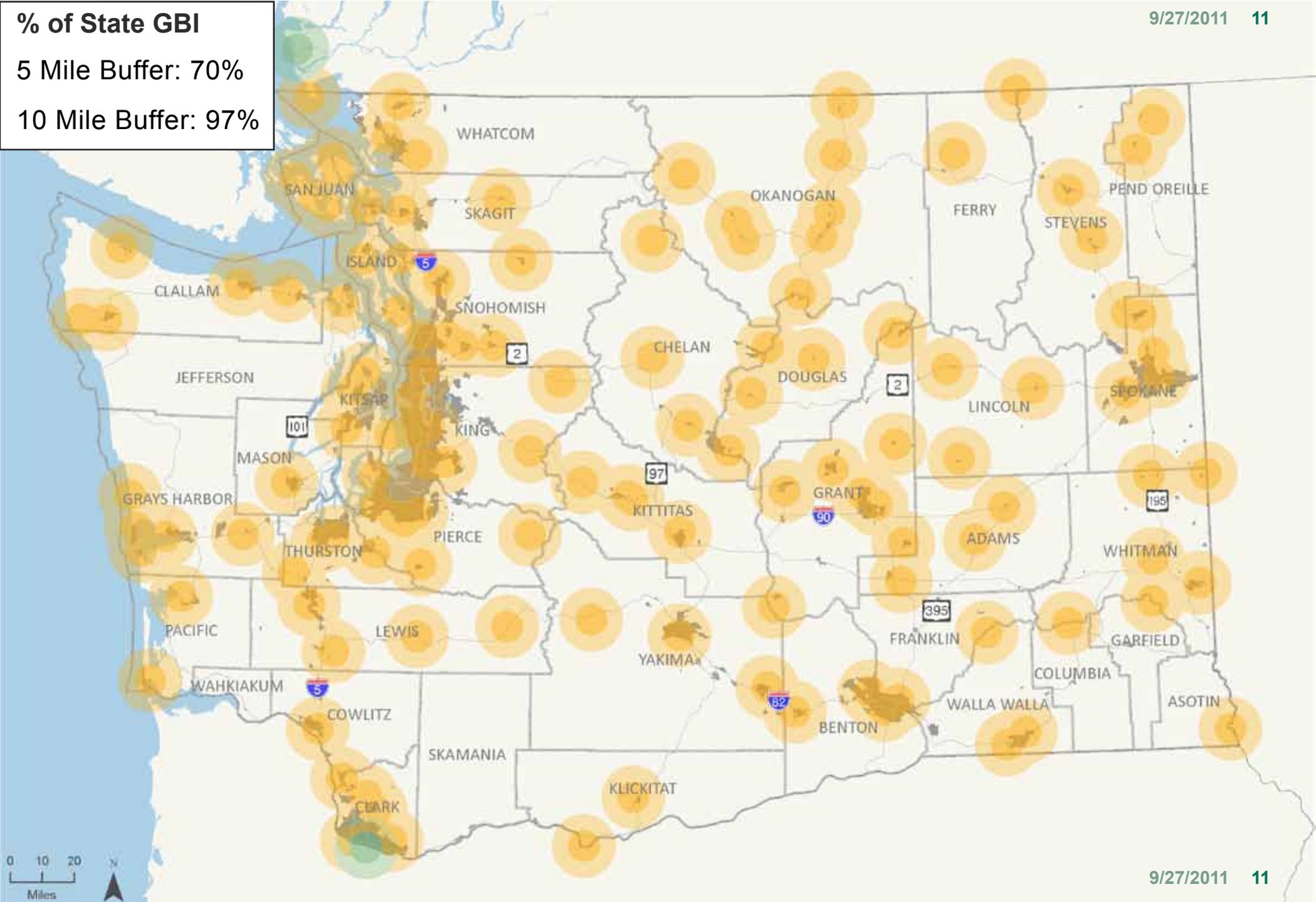
% of State GBI
 5 Mile Buffer: 55%
 10 Mile Buffer: 86%



All Airports

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% of State GBI
5 Mile Buffer: 70%
10 Mile Buffer: 97%

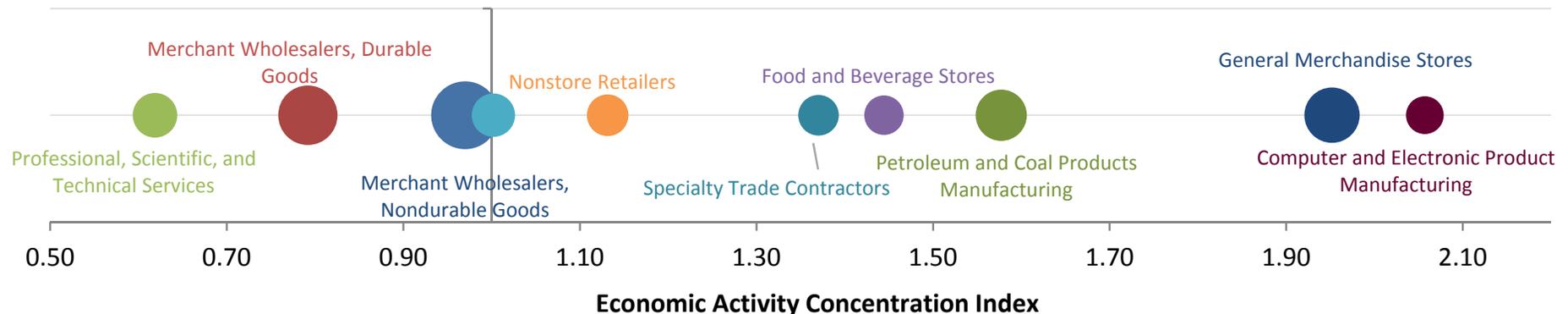


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Industry Concentrations Around Airports

- What industries are located within five-miles of airports?
- Using a bubble chart, we can graph the concentration of an economic activity around the airport:

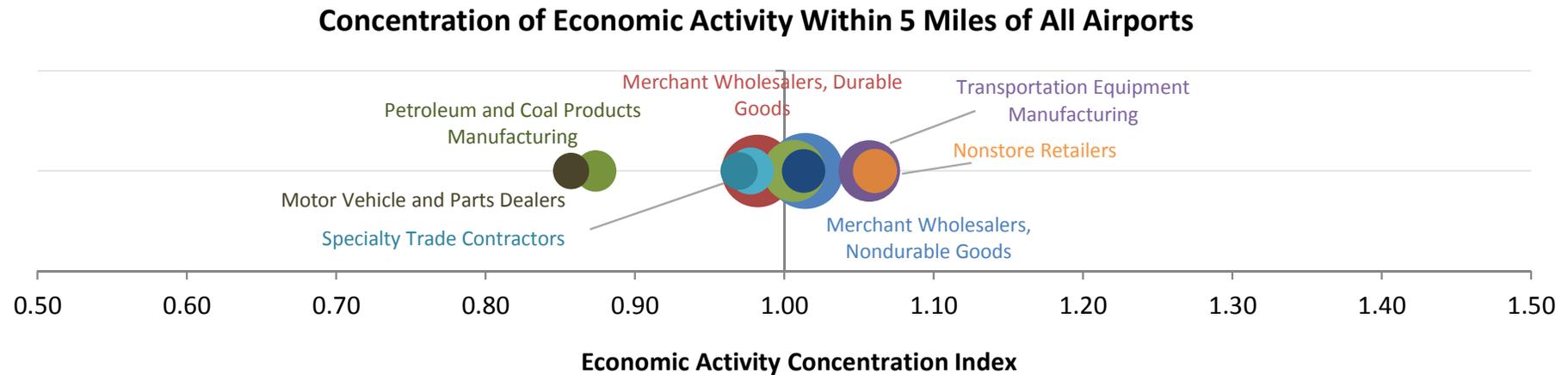
Sample Bubble Chart



- In the chart:
 - Size of dot = amount of GBI.
 - Concentration index = Amount of activity within 5 miles of an airport relative to activity statewide. If the index is over 1.0, then it is more concentrated around airports than it is statewide.

All Airports: Top 10 Industries within 5 Miles

- The top 10 industries are shown in the bubble chart below. Most cluster around 1.0 on the axis because 70% of statewide activity is within the buffer area.



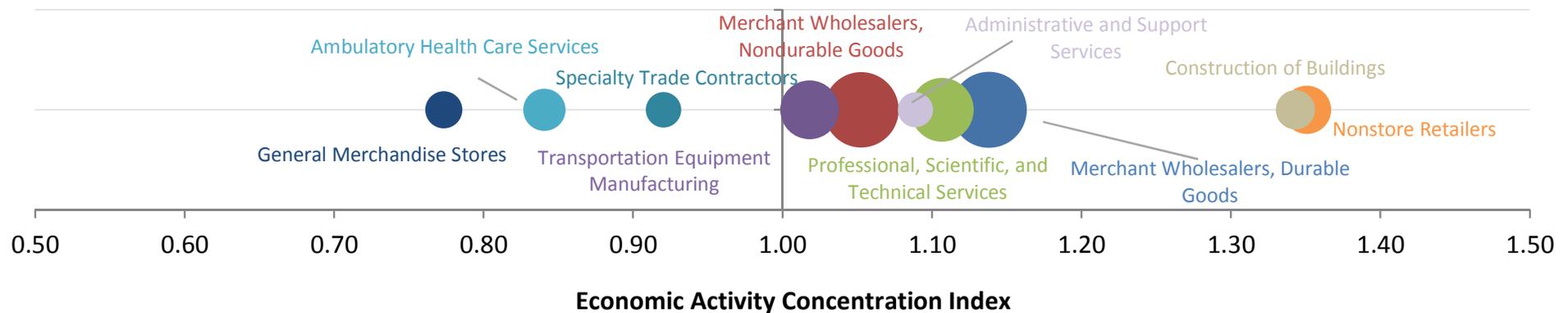
- Next we look at industries by select airport classifications and ask:
 - What industries are concentrated by airports of a specific classification?
 - What is the relationship between these industries and aviation?

Commercial Service Airports

Characteristics of Airport Classification

- Accommodates high levels of activity.
- Can handle performance aircraft.
- Regular, scheduled commercial service.

Concentration of Economic Activity Within 5 Miles of Commercial Airports



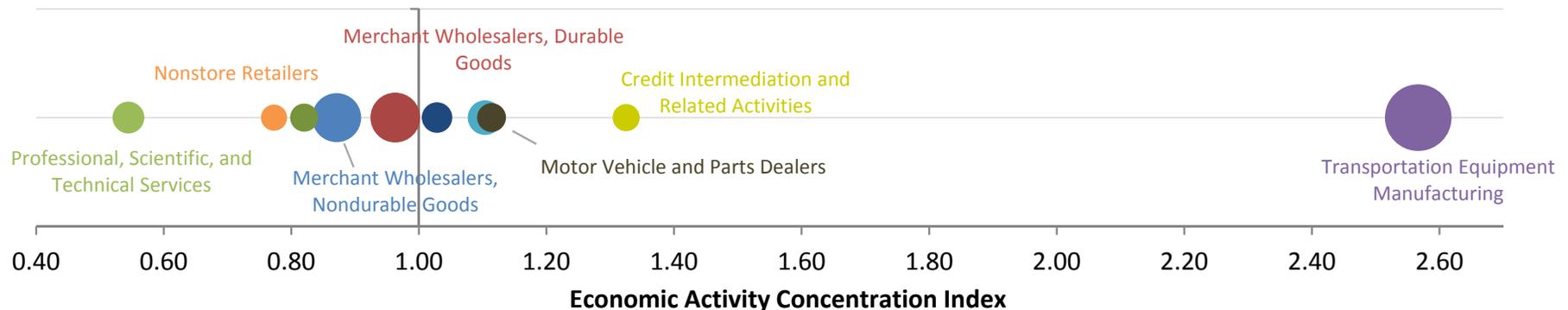
- **Merchant Wholesalers** and **Nonstore Retailers** both require large parcels of industrial land, similar to commercial airports.
- Industries that serve local consumers (**health care offices**, **general merchandise stores** and **specialty trades**) are not clustered around commercial airports.

Regional Service Airports

Characteristics of Airport Classification

- Accommodates high levels of activity.
- Serves large metropolitan areas.
- Can handle most GA or performance aircraft.
- At least 40 based aircraft.
- Has a runway of at least 4,000 feet long.

Concentration of Economic Activity Within 5 Miles of Regional Airports



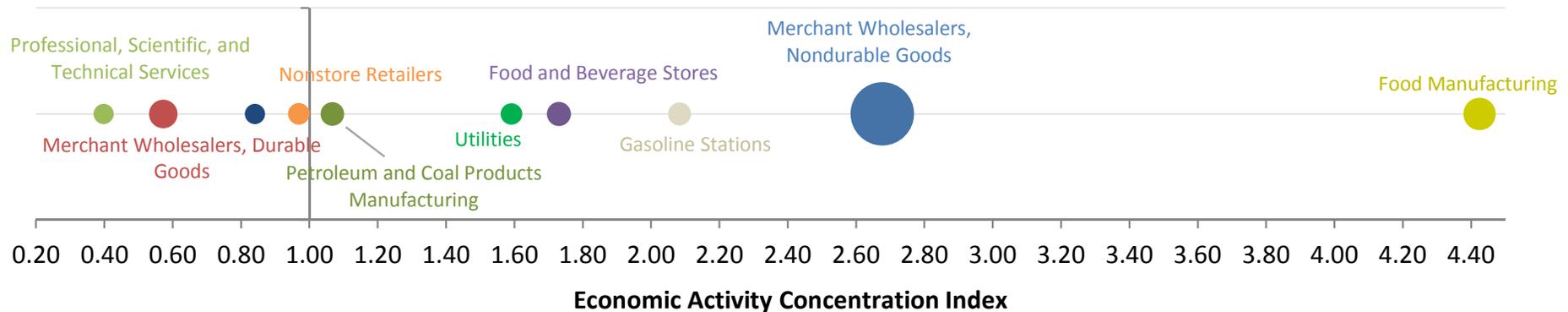
- **Transportation Equipment Manufacturing** firms (including suppliers) are more than twice as concentrated near regional service airports than in the State overall.
 - Airplane and airplane part manufacturing, in particular needs access to airports for the production, testing, and delivery of their products.

Local Service Airports

Characteristics of Airport Classification

- Fewer than 20 based aircraft.
- Used primarily by smaller, piston-driven aircraft.
- Serves small sized communities.
- Has a paved runway.

Concentration of Economic Activity Within 5 Miles of Local Airports



- **Food Manufacturing** may require larger, industrial-type facilities which may be located near airports.
 - Direct customers are likely to be out-of-area food manufacturers, wholesalers, or commodity brokers.
- High concentrations of population-serving industries (**Gasoline Stations**, and **Food and Beverage Stores**) due to local-serving economies of smaller communities.

What We Will Share Today

**Amount of Activity Around Airports:
Analysis of Five- and Ten-Mile Buffers
Around Airports**



Selected Industry Profiles

**Amount of Activity by Sub-State Geography
(WSDOT Regions)**

Criteria for Industry Selection

Industries that:

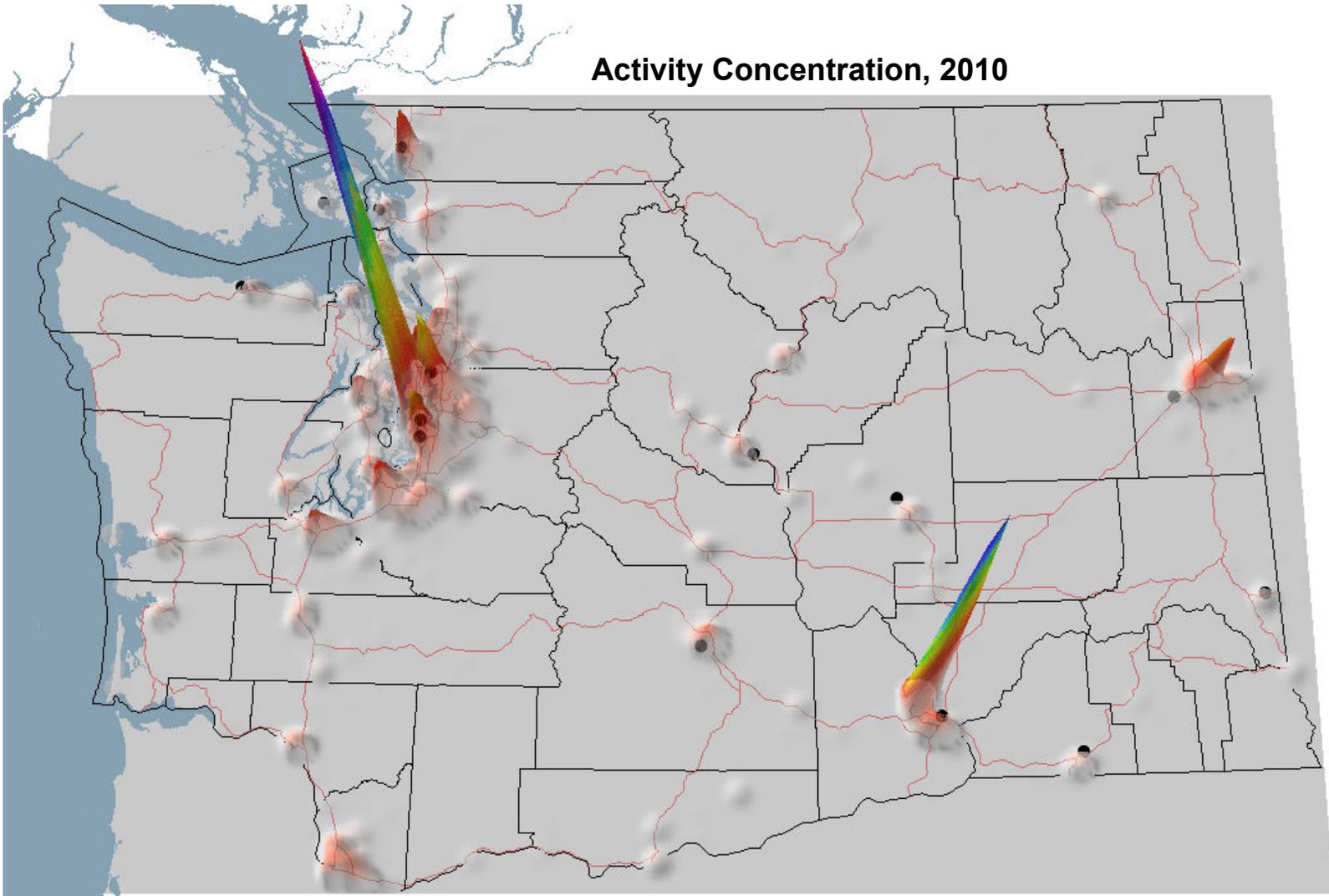
- Have strong relationship or dependence on the aviation system
- Have strong stakeholder interest (including advisory committee feedback)
- Serve more than just local markets
- Are large enough to be important to local or State economies
- May demonstrate the role aviation plays in distributing economic activity throughout the state

Industries Chosen:

- Business and Professional Services
- Agriculture
- Tourism
- Manufacturing (including Aircraft Manufacturing)

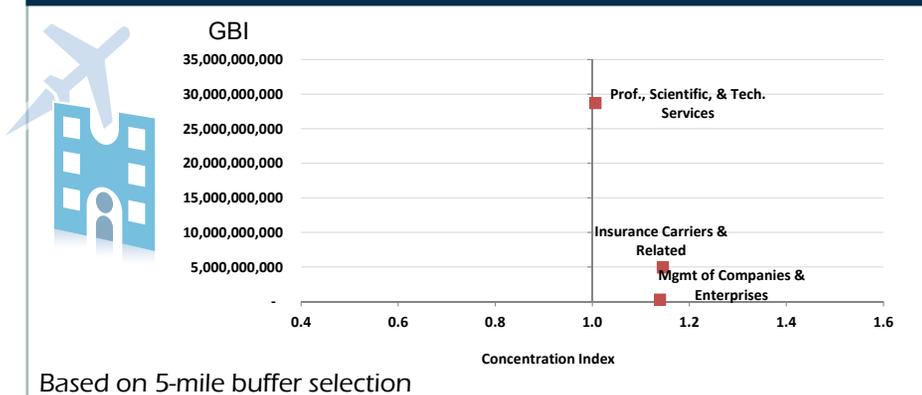
Professional and Business Services Industry Map

	Industry Size	% of State
TOTAL JOBS	208,000	7.4%
TOTAL GBI	\$45 billion	7.7%



Professional and Business Services

Concentration Around Airports



Location Decision Factors



- Access to educated workforce
- Proximity to business and population centers
- IT infrastructure

How Does This Industry Use Aviation



- Business travel to national and international markets/clients/partners
- Regional travel to work sites and clients

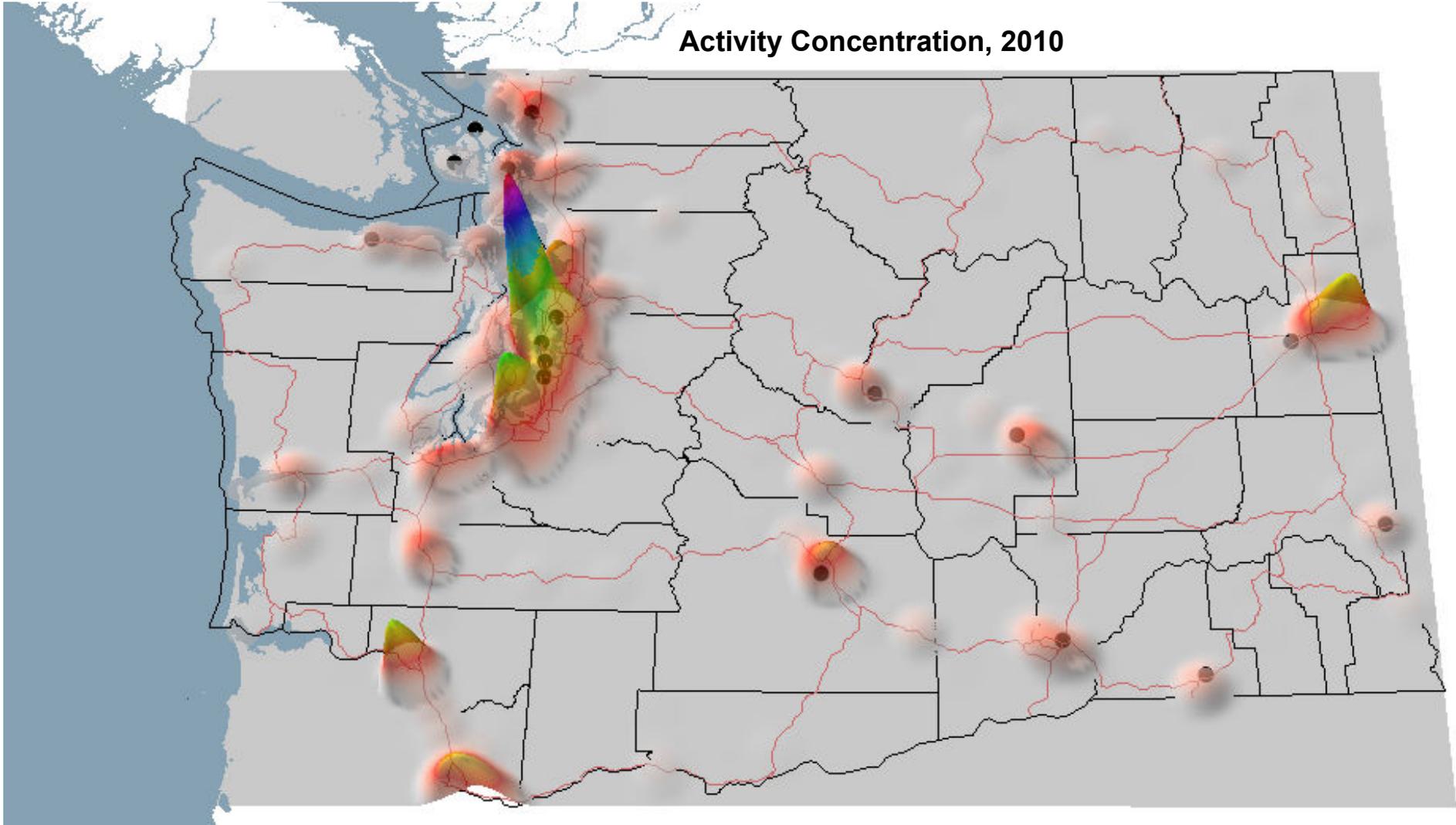
How Important is Aviation for Location Decisions?



- Proximity to airports is a key location decision factor for businesses that serve clients beyond the regional market
- Proximity to airports is not likely to be important for local-serving businesses.
- Generally, professional and business services tend to locate near urban airports and dense population centers

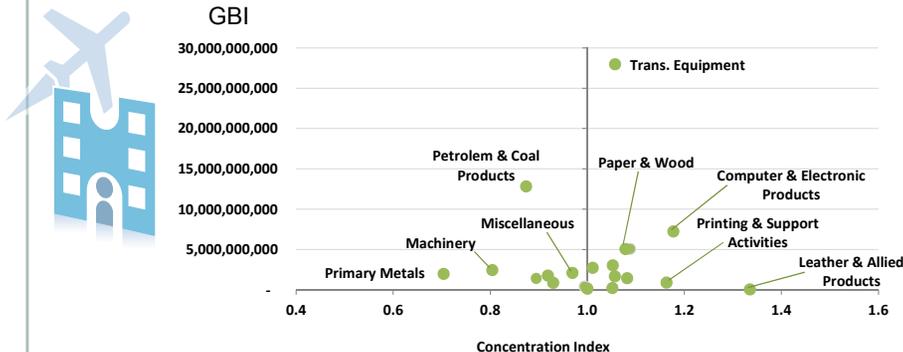
Manufacturing Industry Map

	Industry Size	% of State
TOTAL JOBS	217,000	7.7%
TOTAL GBI	\$112 billion	19.2%



Manufacturing

Concentration Around Airports



Based on 5-mile buffer selection

Location Decision Factors



- Access to transportation infrastructure - major highways, rail, and airports
- Large plots of appropriately zoned, affordable land just outside population centers
- Access to skilled workforce
- Adequate utility service

How Does This Industry Use Aviation



- Air cargo to receive and export materials, components, and final products
- Corporate travel between facilities regionally, nationally, and internationally

How Important is Aviation for Location Decisions?

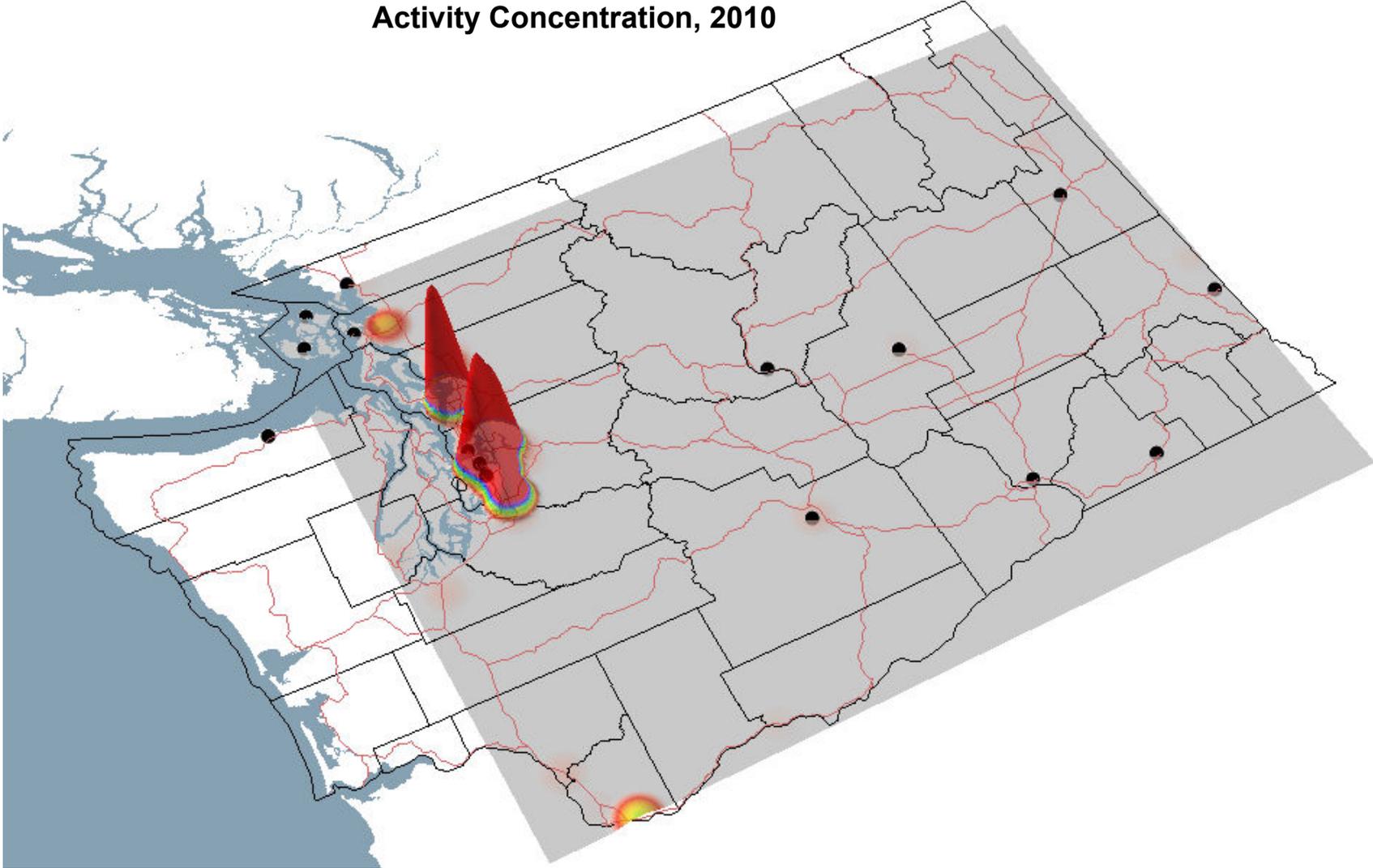


- Proximity to airports is one of several important location decision factors for manufacturing sub-sectors that rely on aviation for air cargo and supply networks.
- Large affordable plots of land found near airports are attractive to manufacturing companies that need space and access to transportation infrastructure, and are not as sensitive to noise issues associated with airports.

Aircraft Manufacturing Industry Map

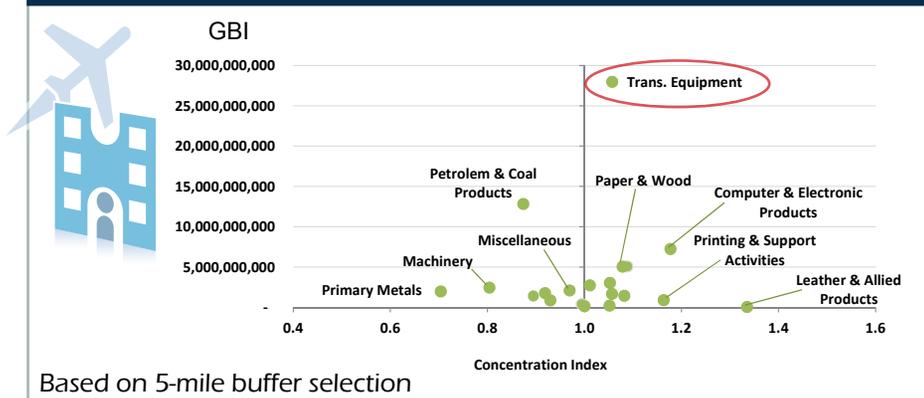
	Industry Size	% of State
TOTAL JOBS	80,000	2.9%
TOTAL GBI	\$35 billion	6.0%

Activity Concentration, 2010



Aircraft Manufacturing (subset of Manufacturing)

Concentration Around Airports



Location Decision Factors



- Proximity to airports for aircraft testing, storage, and delivery
- Access to skilled workforce (engineering, machining)
- Other factors listed for manufacturing

How Does This Industry Use Aviation



- Airports used for flight testing and hangar space
- Air cargo supports global network of suppliers
- Corporate travel between facilities regionally, nationally and internationally

How Important is Aviation for Location Decisions?

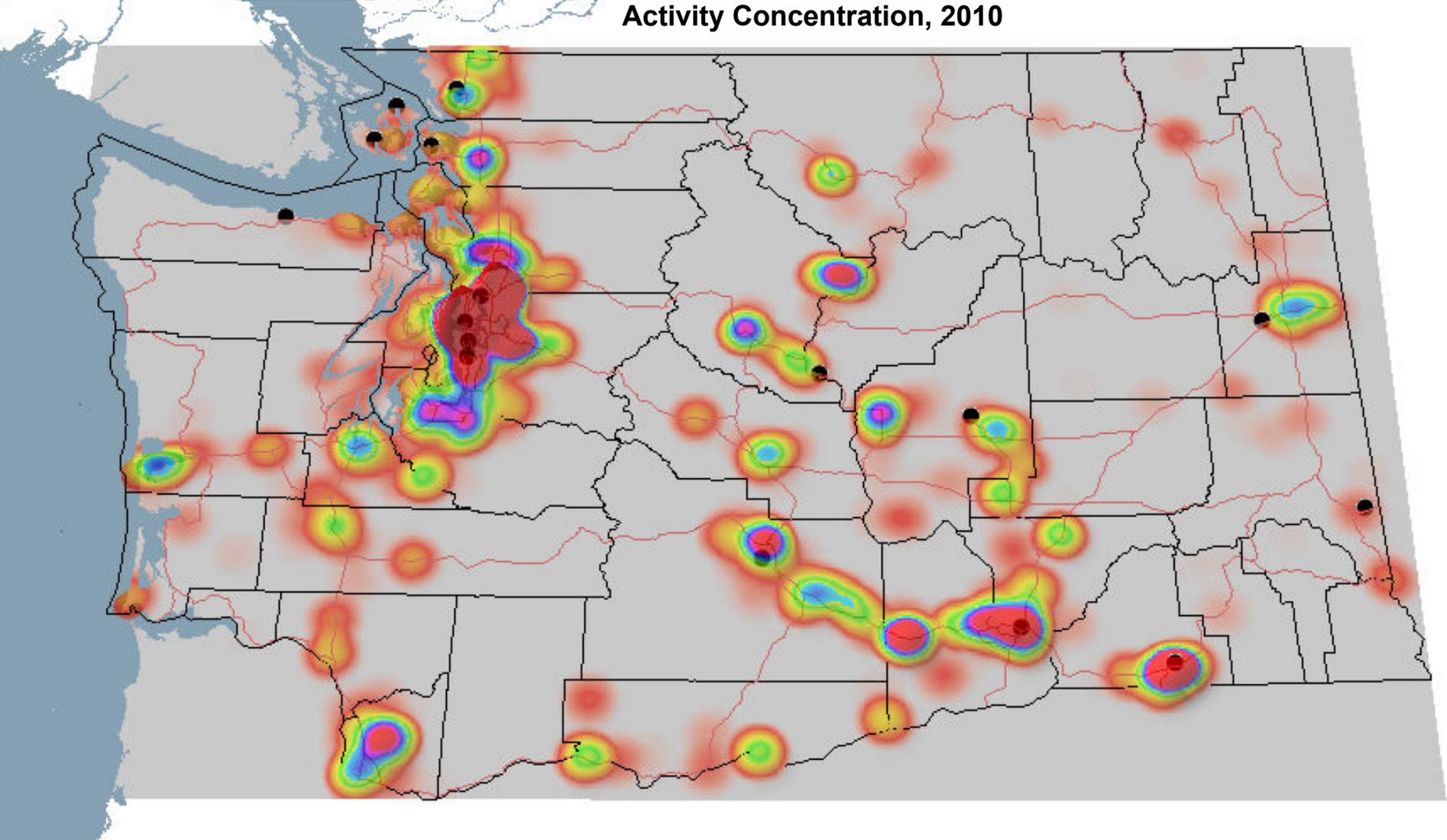


- Proximity to airports is a critical location decision factor for aircraft manufacturers such as Boeing, as they require air fields for aircraft testing, storage, and delivery
- Aviation infrastructure is intrinsically tied to aircraft manufacturing's core market and sources of demand.

Agriculture Industry Map

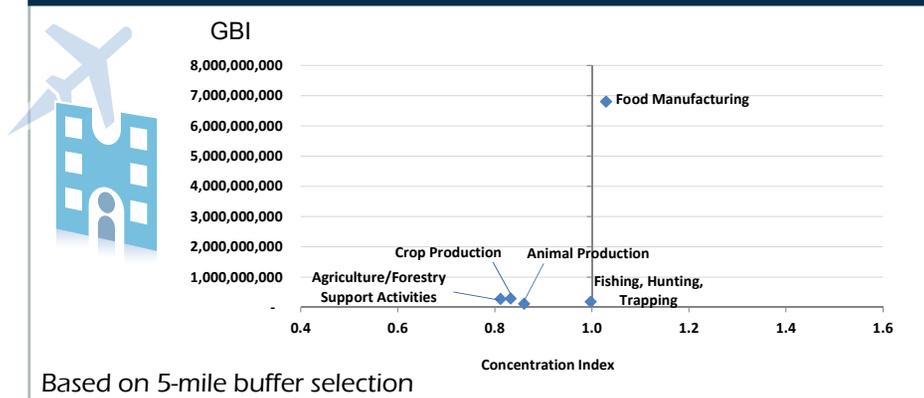
	Industry Size	% of State
TOTAL JOBS	120,000	4.3%
TOTAL GBI	\$11 billion	1.9%

Activity Concentration, 2010



Agriculture

Concentration Around Airports



Location Decision Factors



- Access to fertile land, adequate water supply and other key environmental resources
- Processing and distribution facilities need access to transportation infrastructure and markets
- Affordable workforce

How Does This Industry Use Aviation



- Aviation allows for time sensitive delivery of fresh produce and other agricultural products to markets around the state, nation, and world
- Aerial application is an efficient way to apply treatments to fertilize and protect cropland

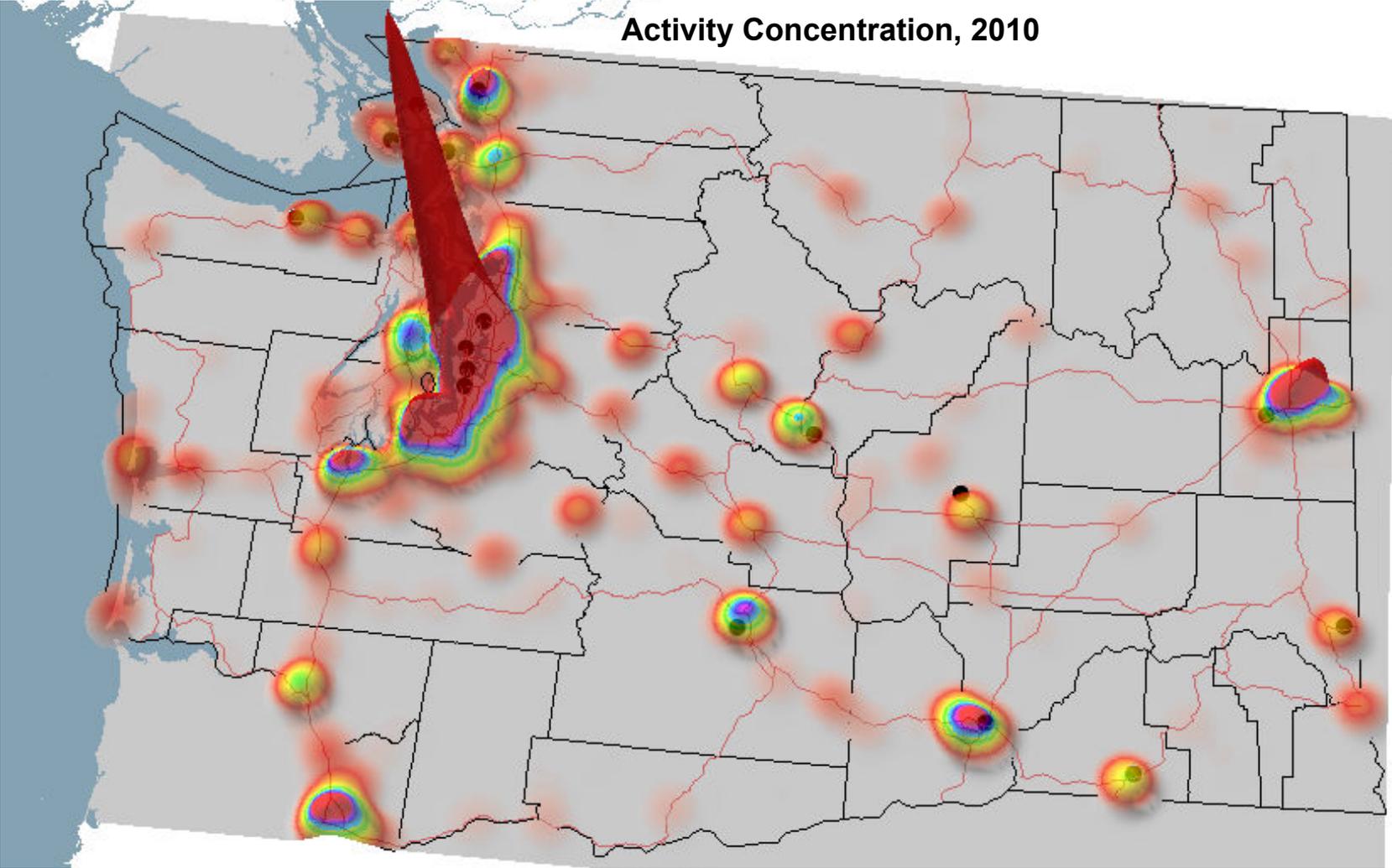
How Important is Aviation for Location Decisions?



- Proximity to airports is not a primary location decision factor for most agriculture. However, it may play a role for food manufacturers who require time-sensitive delivery of fresh produce and other agricultural products.
- Sub-sectors that focus on animal production and support forestry activities tend to locate away from population centers and not near airports.

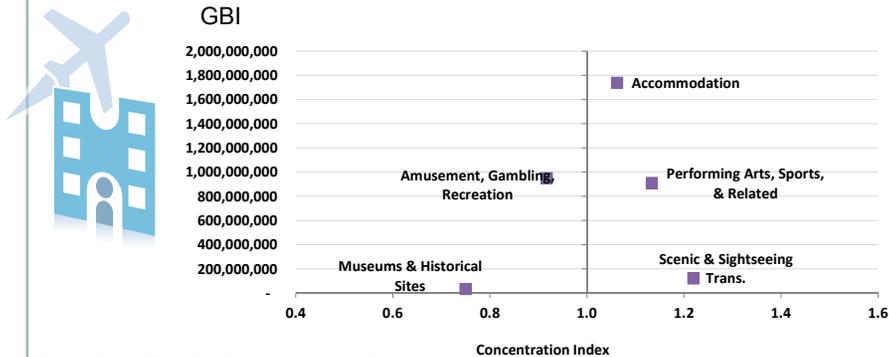
Tourism Industry Map

	Industry Size	% of State
TOTAL JOBS	64,464	2.3%
TOTAL GBI	\$5 billion	1%



Tourism

Concentration Around Airports



Based on 5-mile buffer selection

Location Decision Factors



- Proximity to population centers and tourist attractions
- Locations with potential for year-round activity
- Access to affordable workforce

How Does This Industry Use Aviation



- Customers travel via commercial air service, charter service, and personal aircraft
- Restaurants rely upon aviation for deliveries of specialty and fresh ingredients

How Important is Aviation for Location Decisions?



- Aviation is critical to tourism as it provides the pathway to connect the state to the rest of the world.
- Proximity to airports is important for sub-sectors of the industry that serve airport customers (hotels, ground transport).
- The tourism industry and airports tend to co-locate near population centers.

What We Will Share Today

**Amount of Activity Around Airports:
Analysis of Five- and Ten-Mile Buffers
Around Airports**

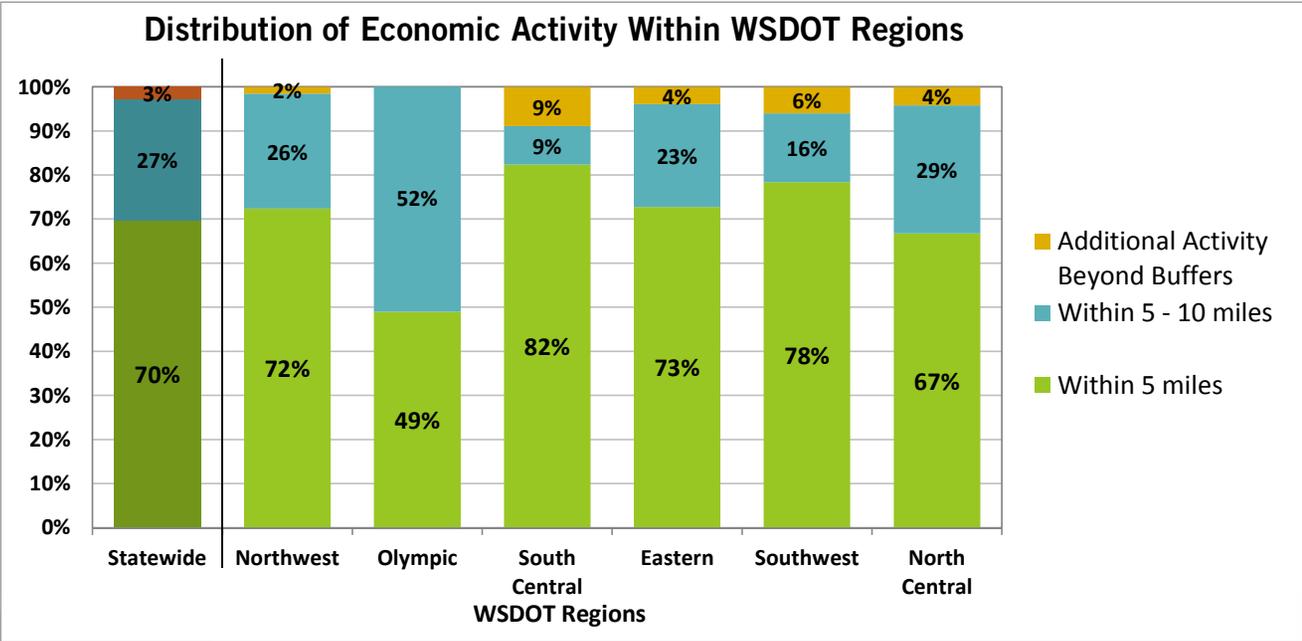
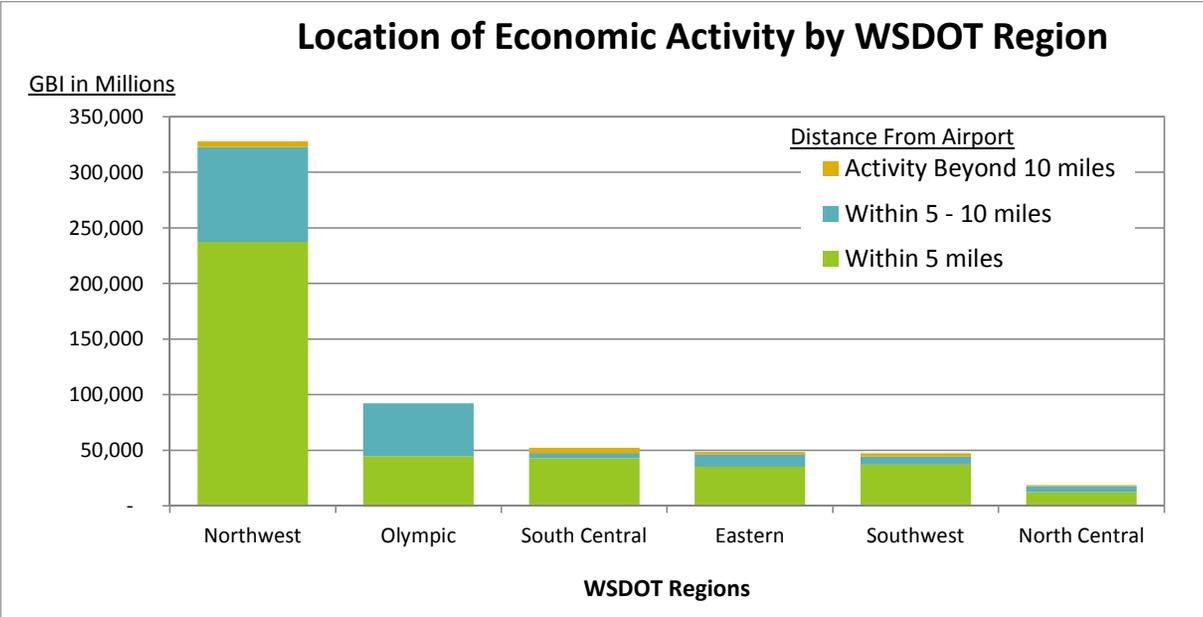
Selected Industry Profiles

**NEXT  Amount of Activity by Sub-State Geography
(WSDOT Regions)**

Sub-State Geography: WSDOT Regions



All Economic Activity by Sub-State Geography



Airport Level Analysis

Re-Introduction to the Airport Perspective

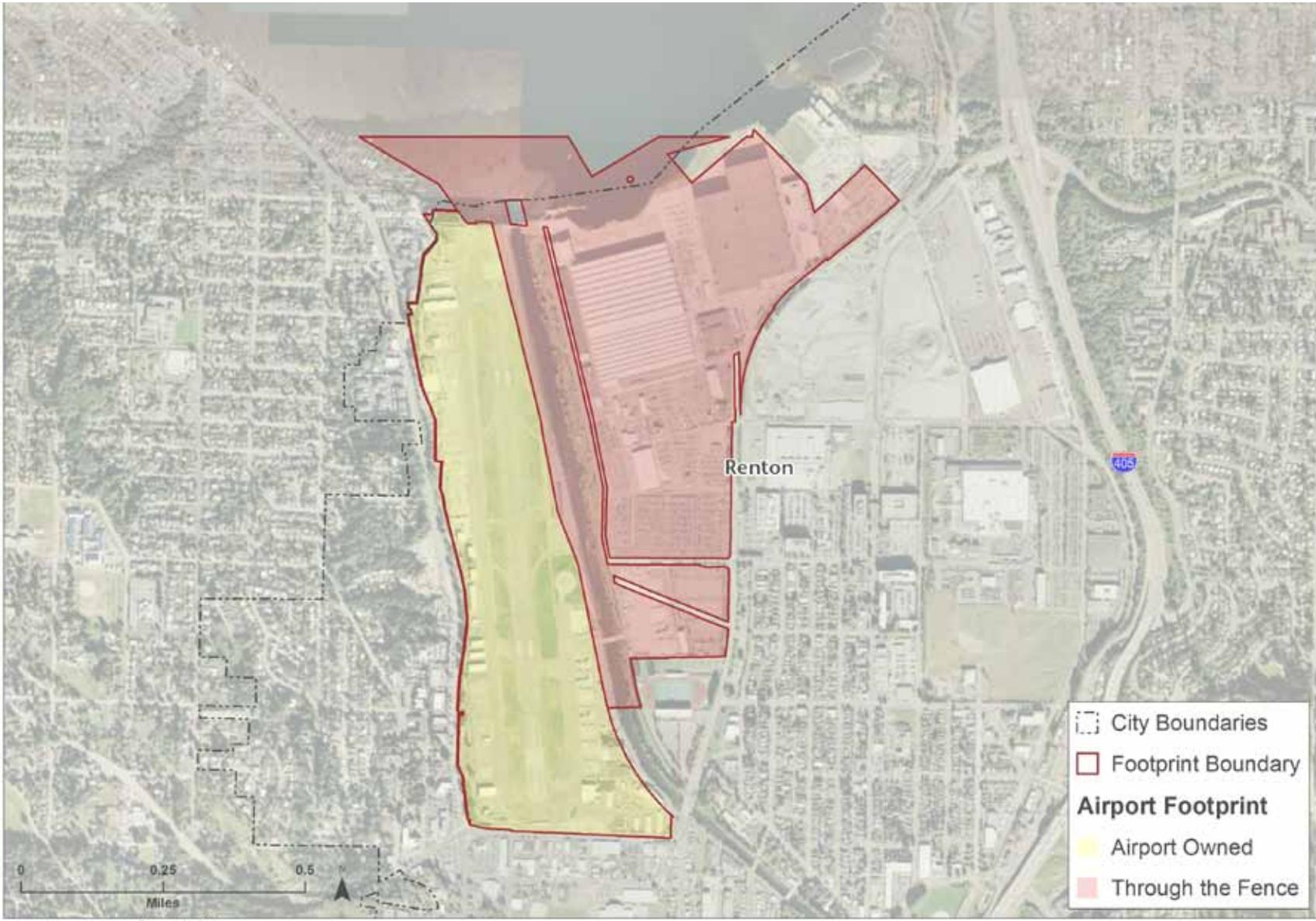


- The airport perspective looks at the level of economic activity reasonably attributable to an individual airport.
- This is different from the industry-level analysis and only includes:
 - Aviation-related activity.
 - Activity on the airport footprint (a subset of the 5-mile buffer).

Airport Level Impacts: Economic and Fiscal

- **Economic Impacts** are the jobs, wages, and spending associated with public use airports. Economic impacts include **direct, indirect, and induced impacts** from:
 - **Businesses Operating on the Airport Footprint.** Economic activity from aviation-related businesses **located on the airport footprint**. Estimated employment and gross business income from these businesses served as input for the analysis.
 - **Visitors Traveling through the Airport.** This analysis captures economic impacts related to visitors entering a community through an airport and spending money in that community and beyond.
- **Fiscal Impacts** are how these airport businesses and visitors affect local and state tax revenues.

Sample Airport Footprint



BERK Date: July, 2011
Source: WSDOT, BERK

Impacts of an Airport

Product: 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	Definition here of State Classification	
Organizational Structure		Runway(s)	Type of Airport
Ownership Type:	City Govt.	Number:	1
Owner:		Type(s):	Asphalt
		FAA:	Description:

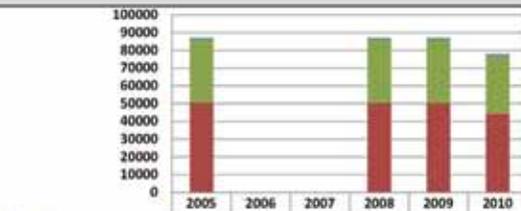
AIRPORT ACTIVITY

Activities (Based/Transient)	Based Aircraft	Number of Carriers	
B	T	AIS Last Updated:	
<input type="checkbox"/>	<input type="checkbox"/>	Jet	2
<input type="checkbox"/>	<input type="checkbox"/>	Multi-Engine	12
<input type="checkbox"/>	<input type="checkbox"/>	Single-Engine	257
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Rotor Based	4
<input type="checkbox"/>	<input type="checkbox"/>	Other	0
<input type="checkbox"/>	<input type="checkbox"/>	Military	0
<input type="checkbox"/>	<input type="checkbox"/>	Ultralight	0
<input type="checkbox"/>	<input type="checkbox"/>	Seaplane	25
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Total	300
<input type="checkbox"/>	<input type="checkbox"/>	Fixed Based Operators	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	AIS Last Updated:	12/21/2010
<input type="checkbox"/>	<input type="checkbox"/>	No. of FBOs	2
<input type="checkbox"/>	<input type="checkbox"/>	Other Ground Transportation	<input checked="" type="checkbox"/>

Airport Rankings

Take Offs and Landings (Operations)

Based Aircraft Operations	Rank
Number of Carriers	Rank
Commercial Enplanements*	
2010	0
2009	0
2008	0



Fuel Service	Rank
80 LL	<input type="checkbox"/>
100 LL	<input checked="" type="checkbox"/>
MoGas	<input type="checkbox"/>
Jet A	<input checked="" type="checkbox"/>
Helicopter Fuel	<input type="checkbox"/>



DISCUSSION DRAFT

8/19/2011

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:	\$6,018,612,723		Total Impact
Estimated Economic Impact	Direct	Indirect/Induced	Total Impact
Jobs	10,286	8,483	18,769
Labor Income	\$ 1,296,207,162	\$ 452,216,130	\$ 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:	\$ 4,155,400		Total Impact	Statewide Impact	% State Impact
	Direct	Indirect/Induced	Total Impact	Statewide Impact	% State Impact
Jobs	41	22	63	xx	xx
Labor Income	\$ 1,193,999	\$ 1,037,785	\$ 2,231,784	xx	xx
Total Output	\$ 3,658,136	\$ 3,198,381	\$ 6,856,517	xx	xx

FISCAL IMPACTS

Estimated Taxes Paid to Each Jurisdiction

	Cities	County	SP Dist	State	Total Taxes
Airport Businesses	\$ 1,737,600	\$ 279,600	\$ 1,153,800	\$ 24,594,000	\$ 27,765,000
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.



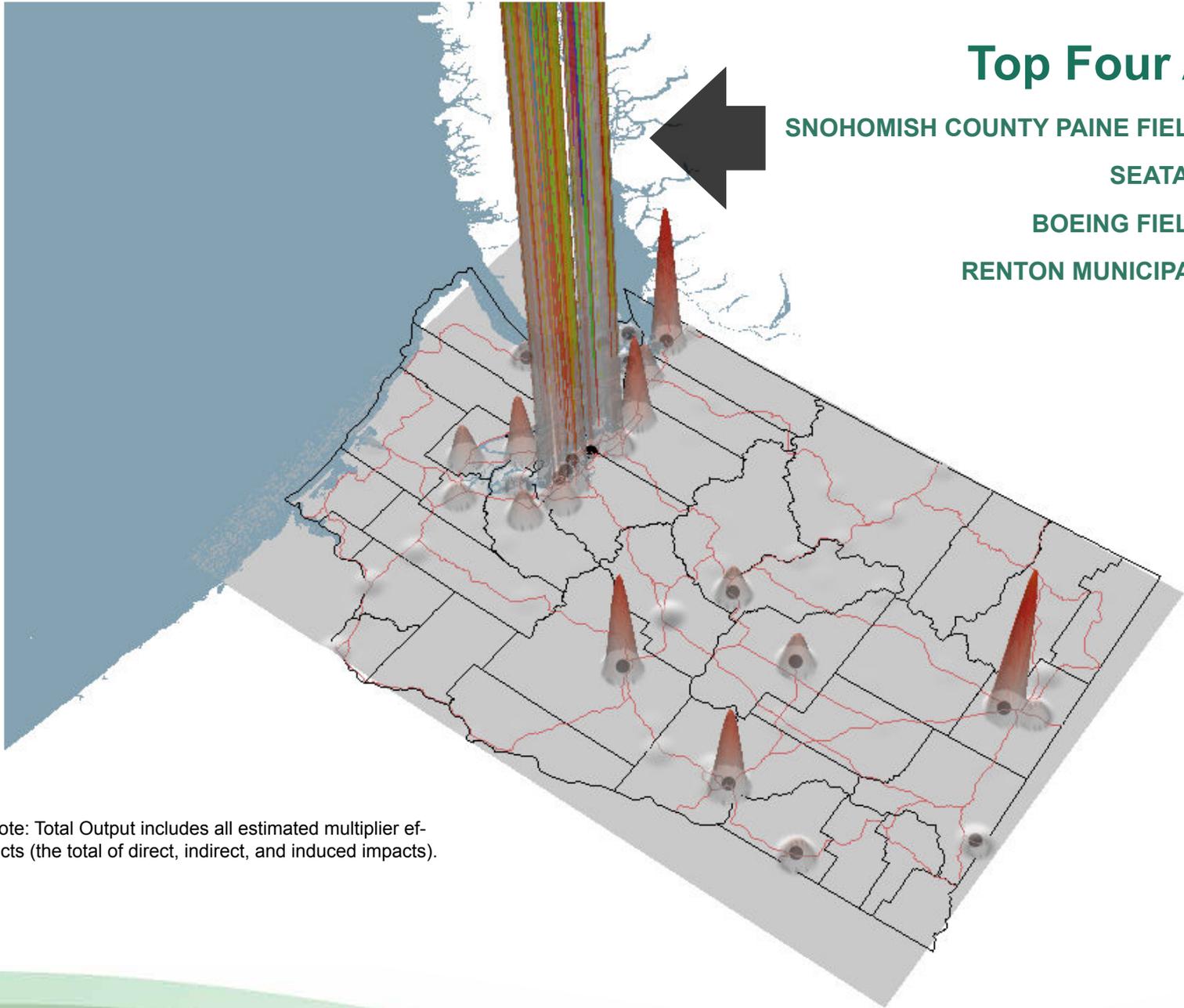
DISCUSSION DRAFT

8/19/2011

Airport Profile: Review Process

- The **airport profile** was first introduced in Meeting #2.
 - Each public use airport has its own profile.
 - The profile describes the airport's key characteristics, activities, and economic and fiscal impacts.
- **136 airport profiles sent out to airport representatives in August** for their review and feedback on airport activity and direct inputs (such as employment and tax base information).
- The numbers presented today are still **draft numbers**.
 - **The review process is ongoing.** Airport feedback is being incorporated and will affect the final economic impact numbers.
 - GBI was a key input for economic activity estimates. We may make adjustments to output based on additional research on the relationship between output and GBI.

Economic Activity: Total Output by Airport



Top Four Airports

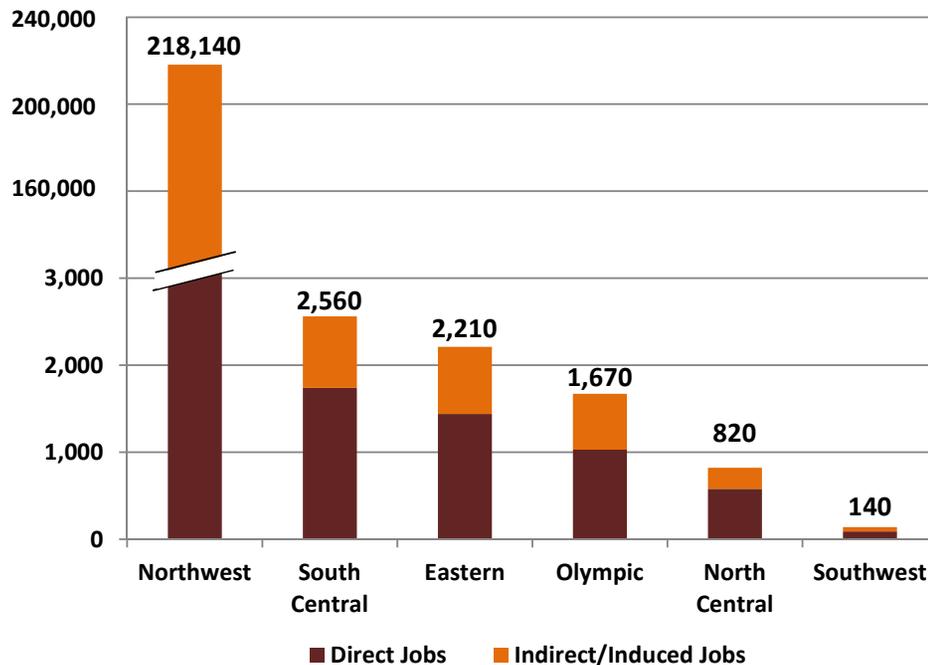
- SNOHOMISH COUNTY PAINE FIELD: \$19.4 billion
- SEATAC: \$11.1 billion
- BOEING FIELD: \$9.2 billion
- RENTON MUNICIPAL: \$6.2 billion

Note: Total Output includes all estimated multiplier effects (the total of direct, indirect, and induced impacts).

Roll Up: Impacts by Geographic Region

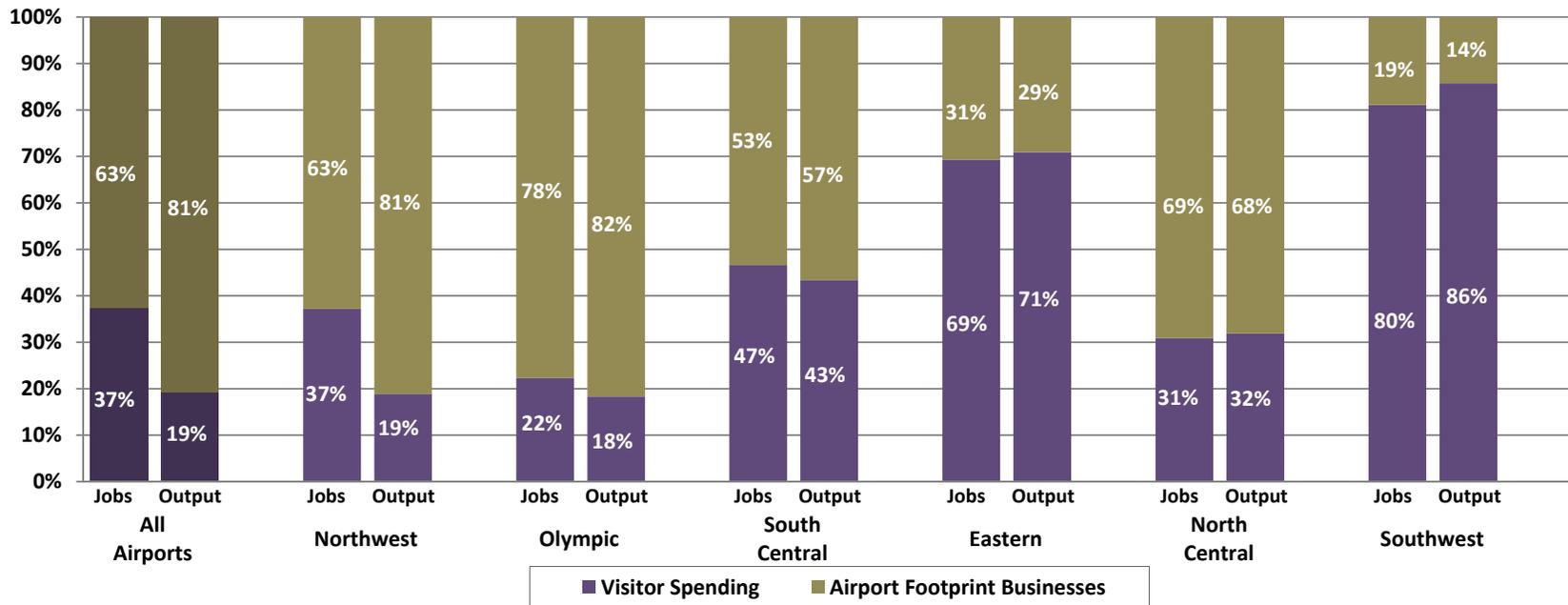
Total Economic Impacts by WSDOT Region

WSDOT Region	Direct Jobs	Total Jobs	Direct Labor Income	Total Labor Income	Direct Output	Total Output
Northwest	124,650	218,140	9,010,274,000	13,748,374,200	32,195,990,600	46,418,949,500
South Central	1,740	2,560	69,579,800	104,496,000	177,468,400	280,290,200
Eastern	1,440	2,210	48,546,100	83,036,800	122,735,900	225,843,700
Olympic	1,030	1,670	51,531,400	76,895,600	128,608,600	207,215,400
North Central	580	820	20,686,200	30,184,500	59,982,500	88,282,000
Southwest	90	140	2,730,100	4,727,400	7,580,400	13,705,800
Total	129,530	225,540	9,203,347,600	14,047,714,500	32,692,366,400	47,234,286,600



- The NW Region accounts for 97% of total jobs and 98% of total output.
- About 74,000 direct jobs are from businesses on the footprints, and about 55,000 direct jobs are from visitor spending.
 - Over 50,000 direct jobs on the footprints are from Boeing.

Source of Impacts by Region

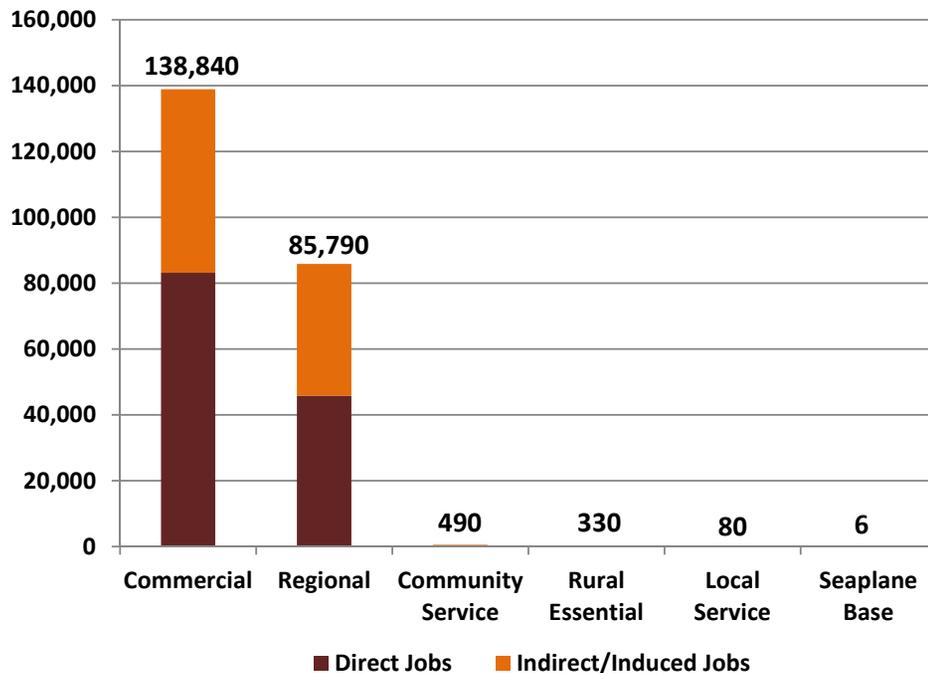


- Statewide, businesses on the airport footprints account for 63% of total jobs in the study and 81% of total output.
- In the Eastern and Southwest regions, visitor spending creates a higher percentage of output and jobs than businesses.
- Statewide and in the Northwest, Olympic, South Central, and North Central regions, airport businesses create more jobs and total output than visitor spending.

Roll Up: Impacts by Airport Classification

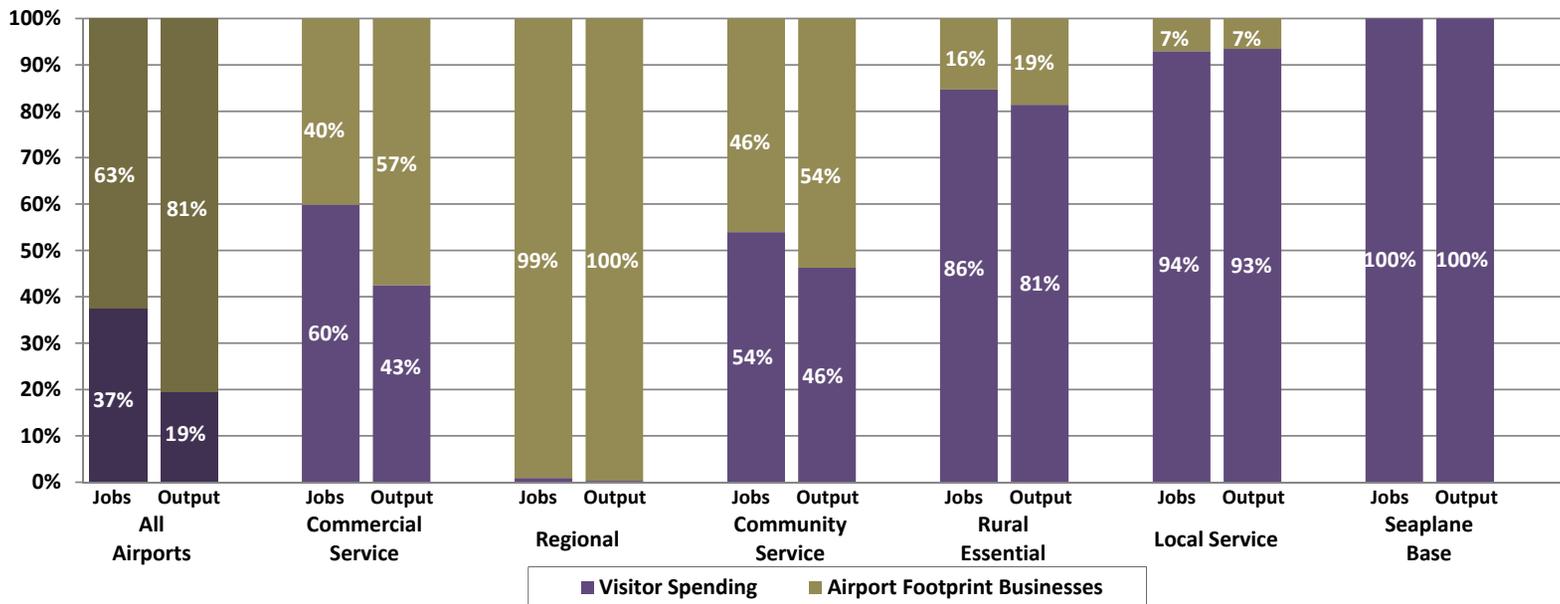
Total Economic Impacts by Airport Classification

Classification	Direct Jobs	Total Jobs	Direct Labor Income	Total Labor Income	Direct Output	Total Output
Commercial	83,130	138,840	3,965,579,100	6,687,681,400	12,916,176,600	21,127,061,500
Regional	45,840	85,790	5,217,478,200	7,324,504,600	19,717,531,700	26,001,444,100
Community Service	300	490	11,222,400	19,613,100	33,055,400	59,198,400
Rural Essential	220	330	7,323,700	12,820,000	20,646,100	37,461,500
Local Service	50	80	1,630,800	2,894,700	4,643,400	8,534,800
Seaplane Base	4	6	113,400	200,800	313,200	586,300
Total	129,530	225,540	9,203,347,600	14,047,714,500	32,692,366,400	47,234,286,600



- Commercial and Regional airports account for over 99% of total jobs and total output.
 - Commercial airports generate 62% of total jobs and 45% of total output.
 - Regional airports generate 38% of total jobs and 55% of total output.
 - Regional airports have a higher output-per-job ratio than commercial airports.

Source of Impacts by Airport Classification



- Statewide, businesses on airport footprints account for 63% of total jobs and 81% of total output.
- At Rural Essential, Local Service, and Seaplane Base airports, visitor spending generates the large majority of jobs and output.
- At Commercial and Community airports, jobs from footprint businesses create more output per job than visitor spending.
- Within the Regional airport classification, visitor spending jobs and output are outweighed by the presence of Boeing.

Roll Up: Statewide Impacts

Summary of Draft Impact Findings

- The estimated direct impacts for Washington's public-use airports are: **129,530 direct jobs, \$9.2 billion in direct labor income, and \$32.7 billion in direct output.**
- Including indirect and induced impacts, airports generate about **225,540 total jobs, \$14.0 billion in total labor income, and \$47.2 billion in total output.**
- **Businesses operating on the airport footprint** generate about:
 - 140,980 total jobs
 - \$11.1 billion in total labor income
 - \$38.1 billion in total output
- **Visitor spending** from tourists traveling through airports generates about:
 - 84,560 total jobs
 - \$3.0 billion in total labor income
 - \$9.1 billion in total output

Comparison to the 2001 Economic Impact Study

- The last statewide economic impact study was completed in 2001. Comparing the results between the 2001 and 2011 studies is difficult because of differences in methodology.
- Unlike 2001, the new 2011 study:
 - Includes Boeing and other through-the-fence connections.
 - Limits economic activity on airport footprints to businesses that are aviation-dependent.
 - Uses a consistent statewide methodology; the 2001 study relied heavily on surveys.
 - Incorporates an independent analysis of Sea-Tac Airport's economic impact.

Addressing Other Airport Studies

- Many airports have recently completed their own economic impact studies, including:
 - Sea-Tac International
 - Bellingham International
 - Boeing Field
 - Olympia Regional
 - Spokane International
- The results of these studies were analyzed and considered in creating this analysis, but numbers will likely be different due to differences in methodology.
 - Broadly, these studies estimated impacts for all business activity on airport property, including non-aviation-related businesses.
 - The final report will address additional differences in approach and results.

Fiscal Impacts

Introduction to Fiscal Impacts

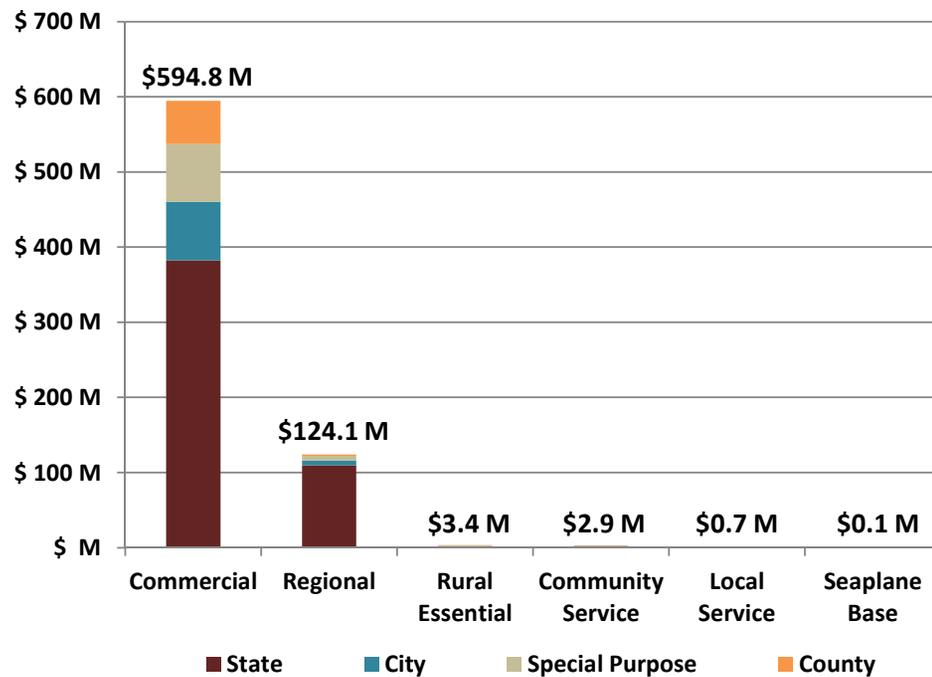
- **A New Approach.** This study goes beyond many traditional studies by looking at how airport-related activity generates tax revenue.
 - The fiscal impact analysis is based on an understanding of local and state tax structure, not national averages.
- **Types of Taxes.** Taxes come from both airport-specific taxes (such as the aviation fuel tax or aircraft excise tax) and from general business activity (such as B&O tax, sales tax, or property tax).
- **Multiple Jurisdictions.** Fiscal impacts are estimated for and summarized by the jurisdiction that receives the tax revenue:
 - Cities
 - Counties
 - Special Purpose Districts
 - Washington State

Introduction to Fiscal Impacts (cont.)

- Fiscal impacts are generated in two ways:
 - **Impacts from Businesses on the Airport Footprint.** Tax revenues are estimated from a list of key revenue-generating activities located on the airport footprints.
 - **Impacts from Visitor Spending.** Tax revenues from visitor spending are based on the direct visitor spending numbers estimated for each airport.
 - For visitor spending revenue, the impact associated with an airport is not necessarily fully received by the county or city where the airport is located.
 - Travelers flying into an airport may take additional ground transportation to a final destination where money is spent.
- Only the **Direct Fiscal Impacts** are calculated - taxes being paid by airports, airport businesses and users, and visitors. This study does not analyze induced or indirect fiscal impacts.

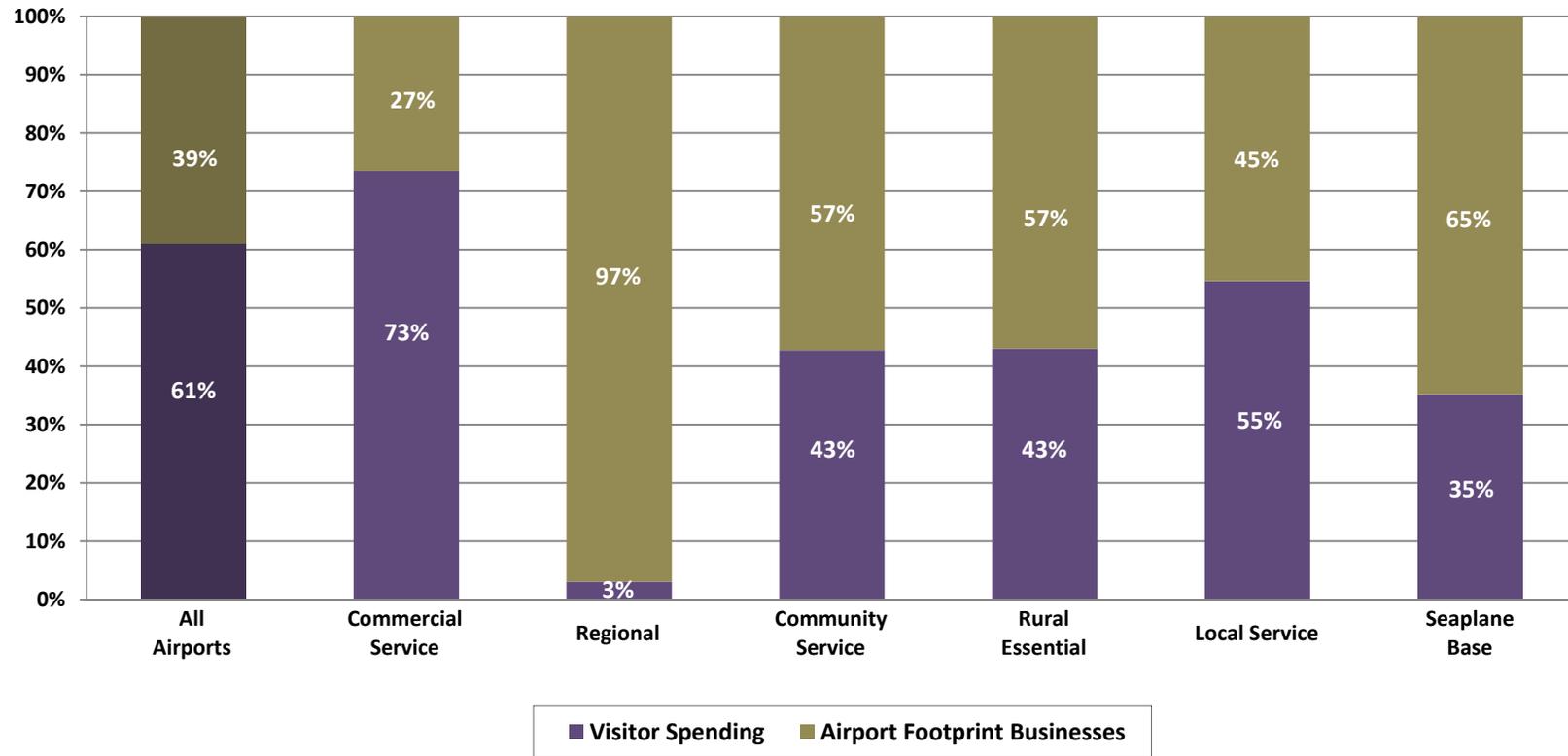
Total Fiscal Impacts by Airport Classification

Classification	City	County	Special Purpose	State	Total
Commercial	77,907,500	57,475,100	77,170,400	382,227,200	594,780,300
Regional	6,074,600	1,877,100	6,409,700	109,752,700	124,114,100
Rural Essential	218,600	330,700	1,217,000	1,676,100	3,442,400
Community Service	224,800	237,300	456,100	2,004,300	2,922,500
Local Service	83,800	72,700	112,500	403,900	672,900
Seaplane Base	9,300	9,800	26,800	36,700	82,700
Total	84,518,600	60,002,700	85,392,500	496,100,900	726,014,900



- Commercial and Regional airports generate 99% of the fiscal impacts.
 - 82% from Commercial
 - 17% from Regional
- 68% of fiscal impacts are paid to the State of Washington, 12% each to cities and special purpose districts, and 8% to counties.

Source of Fiscal Impacts by Classification



- Statewide, visitor spending accounts for 61% of fiscal impacts and businesses on the footprint account for 39%.
- The Regional airport classification is heavily weighted toward taxes from businesses, largely due to Boeing's presence at Paine Field, Renton Municipal, and Boeing Field.

Fiscal Impacts by Tax Type

Classification	Aircraft Excise Tax*	Aviation Fuel Tax	Sales Tax***	Property Tax**	B&O Tax***	Other***	Total
Commercial	142,100	455,200	374,118,100	29,269,200	93,282,300	97,513,400	594,780,300
Regional	248,500	831,800	6,631,300	13,508,200	98,014,100	4,880,200	124,114,100
Rural Essential	47,500	116,400	1,200,700	1,634,000	128,700	315,100	3,442,400
Community Service	105,400	389,200	1,229,300	604,300	362,300	232,000	2,922,500
Local Service	20,300	54,500	273,900	222,200	31,200	70,800	672,900
Seaplane Base	700	0	21,900	52,900	1,900	5,300	82,700
Total	564,500	1,847,100	383,475,200	45,290,800	191,820,500	103,016,800	726,014,900
% of Total	0.1%	0.3%	52.8%	6.2%	26.4%	14.2%	

* Based on number of based aircraft.

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

*** Include impacts from visitor spending and airport footprint businesses

- Aviation specific taxes such as the Aircraft Excise Tax and the Aviation Fuel Tax comprise about 0.4% of the total fiscal impacts from airports.
- Sales tax (52.8%) and B&O Tax (26.4%) are the largest sources of fiscal impacts.
- Other taxes include Utility Taxes, Leasehold Excise Tax, Rental Car Tax, and Lodging Tax.

Economic Calculator Overview

Technology Developments

- In addition to economic analysis, technology developments in three areas are being conducted as a part of this project:
 - Additions/enhancements to the AIS database.
 - Creation of an airport profile tool to generate 136 airport profiles.
 - Development of an online economic calculator.
- Today we are focusing on one component: the online calculator.

Overview of Economic Calculator

Purpose:

- Create a web-based aviation economic impact calculator, which will be a tool for airport managers, decisionmakers, business owners, and the general public.
- Allow users to run “what-if” scenarios for changes in airport activity and see estimated changes in economic impacts.
- Provide a consistent way to evaluate potential economic impacts of changes to airport activity across the State.

Where we are:

- Determined drivers of activity at airports, completed design of draft interface, and identified how inputs will drive economic changes in the tool.
- Next steps include:
 - Ongoing design through October 2011.
 - Creation, testing, and deployment of the calculator, with an expected release in February 2012.

What the Calculator Will and Will Not Do

- What the calculator will do:
 - Allow users to perform what-if scenarios to see how changes in airport activity affect an airport's economic impacts.
 - Users will be able to change: flight activity, business activity, visitor activity, and construction projects.
 - Utilize the study's findings regarding relationships and correlations between activities and impacts.
- What the calculator is not designed to do:
 - Measure costs. The calculator only captures a specific set of economic benefits that were analyzed as a part of this study.
 - Be an all-encompassing decision tool. Benefits are just one piece in decisionmaking. This tool only estimates how economic benefits change based on a changes in activity.
 - Do all the work. The user has to estimate how a project will impact the four activity categories. For example, the user has to estimate how a change in the airport will affect flight activity.

Using the Economic Calculator

As with the airport profiles, this tool relies on data from the Aviation Information System (AIS) database.

1 User determines how the new scenario will impact the four core categories of activity: flight, business, visitor, and construction.

2 User can see measurement of current activity, as recorded in the AIS database, in the interface.

3 User can increase, decrease, or add new activity in given categories **+** **-**

4 User can view current impacts and adjusted impacts in tables at the bottom of the interface

5 Users can print a report showing current activity, new scenario, and estimated changes in economic impacts

Airport Name		Counties in the Economic Impact Region	
Airport Name Drop-Down Box		County1, County2, County3	
Changes in Flight Activity			
Use this area of the calculator if you want to see the impacts of changes in flight activity.			
	Most Recent Data	New Scenario	% Change
+	Cargo Volume (tons)	300,000	375,000 25%
	General Inherent Operations	10,342	15,000 45%
	General Local Operations	6,795	8,000 18%
	Commercial Air Taxi Operations (Charters)	-	20,000 N/A
	Commercial Air Carrier Operations (Scheduled)	30,000	25,000 -17%
Text here about how to use the employment section.			
	Estimated Employment per Air Taxi Operations	30	200,000
	Estimated Employment per Air Carrier Operations	45	4,375,000
Changes in Business Activity			
Use this area of the calculator if you want to see the impacts of adding or removing businesses from the airport footprint.			
	Estimated Current GRI	New Scenario	% Change
+	Fuel Sales	\$ 650,000	\$ 950,000 46%
	Fuel sales <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
	Air Transportation	\$ 2,000,000	\$ 2,500,000 25%
	Manufacturing/Fabrication	\$ 3,000,000	\$ 3,000,000 0%
	Warehousing and Storage	\$ -	\$ 500,000 N/A
	Consulting Services	\$ 800,000	\$ 800,000 0%
	Machinery/Equipment Repair and Maint	\$ 1,550,000	\$ 1,550,000 0%
	Research and Development	\$ 700,000	\$ 700,000 0%

CURRENT ESTIMATED ECONOMIC IMPACTS			
	Direct	Indirect/Induced	Total Impact
Jobs	104	30	134
Labor Income	\$ 4,561,049	\$ 1,133,220	\$ 5,694,269
Total Output	\$ 12,770,984	\$ 5,626,246	\$ 18,397,230
NEW SCENARIO ONGOING ESTIMATED ECONOMIC IMPACTS			
	Direct	Indirect/Induced	Total Impact
Jobs	130	40	170
Labor Income	\$ 5,739,241	\$ 2,277,832	\$ 8,017,073
Total Output	\$ 18,321,874	\$ 7,623,876	\$ 25,945,750

PRINT RESULTS

Draft Interface

+ INSTRUCTIONS

Text instructions here - perhaps collapsible.

+ SAMPLE ACTIVITIES

Sample projects or changes in activity that a user might want to test, and the correct way to change the data.

DISCLAIMERS

Text here about what this tool can and cannot do, and how to interpret results. This section is not hideable, but will always remain visible so that each time a user works with this tool, these disclaimers will be highly visible.

Airport Name
Airport Name Drop-Down Box

Counties in the Economic Impact Region
County1, County2, County3

Changes in Flight Activity		Most Recent Data	New Scenario	% Change
+ Use this area of the calculator if you want to see the impacts of changes in flight activity.				
Cargo Volume (tons)		300,000	375,000	25%
General Itinerant Operations		10,342	15,000	45%
General Local Operations		6,735	8,000	19%
Commercial Air Taxi Operations (Charters)		-	20,000	N/A
Commercial Air Carrier Operations (Scheduled)		20,000	25,000	25%
Text here about how to use the enplanements section . . .				Total
Estimated Enplanements per Air Taxi Operations		-	10	200,000
Estimated Enplanements per Air Carrier Operations		150	175	4,375,000

Changes in Business Activity		Estimated Current GBI	New Scenario	% Change
+ Use this area of the calculator if you want to see the impacts of adding or removing businesses from the airport footprint.				
Fuel Sales		\$ 650,000	\$ 950,000	46%
Fuel sales <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Air Transportation		\$ 2,000,000	\$ 2,500,000	25%
Manufacturing/Fabrication		\$ 3,000,000	\$ 3,000,000	0%
Warehousing and Storage		\$ -	\$ 500,000	N/A
Consulting Services		\$ 800,000	\$ 800,000	0%
Machinery/Equipment Repair and Maint		\$ 1,550,000	\$ 1,550,000	0%
Research and Development		\$ 700,000	\$ 700,000	0%

Draft Interface (cont.)

Changes in Visitor Assumptions		% of Total Operations	New Scenario
+	Use this area of the calculator if you want to see the impacts of targeting different types of visitors such as tourists or corporate travelers.		
% Annual Visitors (Commercial Flights)		60%	65%
% Annual Visitors (General Aviation Flights)		40%	50%

Capital Projects		Project Cost		
+	This portion of the calculator estimates the impacts of construction dollars only. If the project is assumed to impact activity levels at the airport (enplanements, operations, etc.), please enter those changes above.			
		FEDERAL GRANTS	STATE GRANTS	LOCAL FUNDING
	Infrastructure (roads, utilities, etc.)	\$ 1,000,000	\$ 500,000	\$ 500,000
	New Buildings	\$ 5,000,000	\$ 2,000,000	\$ 1,000,000

CURRENT ESTIMATED ECONOMIC IMPACTS			
	Direct	Indirect/Induced	Total Impact
Jobs	104	30	134
Labor Income	\$ 4,561,049	\$ 1,133,220	\$ 5,694,269
Total Output	\$ 12,770,984	\$ 5,626,246	\$ 18,397,230

NEW SCENARIO ONGOING ESTIMATED ECONOMIC IMPACTS			
	Direct	Indirect/Induced	Total Impact
Jobs	130	40	170
Labor Income	\$ 5,739,241	\$ 2,277,832	\$ 8,017,073
Total Output	\$ 18,321,874	\$ 7,623,876	\$ 25,945,750

NEW SCENARIO ONE-TIME ESTIMATED ECONOMIC IMPACTS (From Construction)			
	Direct	Indirect/Induced	Total Impact
Jobs	10	2	12
Labor Income	\$ 806,376	\$ 332,721	\$ 1,139,097
Total Output	\$ 8,761,325	\$ 3,791,465	\$ 12,552,790

PRINT RESULTS

An Example: A New Airport Hangar

An airport manager wants to estimate the changes in economic impacts from the addition of a new hangar.

- 1) The manager estimates how an additional hangar will impact flight activity, business activity, visitor activity, and construction.
- 2) The manager accesses the online calculator and sees the measurement of the airport's current activity, as recorded in the AIS database.
- 3) The manager can adjust relevant activity measures, based on his/her estimates. In the case of a new hangar, this could include:
 - Increasing Operations under Flight Activity.
 - Note: Operations and visitors are linked. The number of visitors will automatically increase with an increase in flight activity. There is no change in the Visitor Activity sections unless the hangar changes the percent of visitors per operation.
 - Increasing GBI under Business Activity for Machinery/Equipment Repair and Air Transportation.
 - Adding the construction costs under Construction Projects.

An Example (cont.)

- 4) The manager can see current impacts and the adjusted scenario impacts in tables at the bottom of the interface.
- 5) The manager can print the estimated results.

Closing: Next Steps and Round Table

Next Steps

One meeting left:

- **Meeting 4:** November 1, 2011, 9am-12pm; Puget Sound Regional Council, Seattle, WA
 - Follow ups from Meeting #3
 - Draft report
 - Update on website and economic calculator progress

Closing Round Table

- What are your comments, thoughts, and questions after today's meeting?

Thank you!