



AIRPORT: Boeing Field / King County International (BFI)

ASSOCIATED CITY: Seattle

ARC: D-IV

Region: Central Puget Sound

AIRPORT DATA AND FACILITIES

Boeing Field is located in King County, west of Interstate 5, four miles south of Seattle. Boeing Field has 466 based aircraft, including 293 single-engine, 89 multi-engine piston-powered, 15 turboprops, 38 turbojets, and 31 helicopters. The latest available data indicate that there were a total of 298,304 annual operations at the Airport. In 1998, 2,818 passengers were enplaned at Boeing Field, classifying it as a commercial service-other airport. West Isle Air provides service from the Airport to Friday Harbor. Cargo service is provided by Aeroflight, Airborne Express, Airpac Airlines, Ameriflight, BAX, Helijet Airways, Methow Aviation, Mid Atlantic Freight, Mountain High Aviation, Regional Express, United Parcel Service, and Airnet Systems.



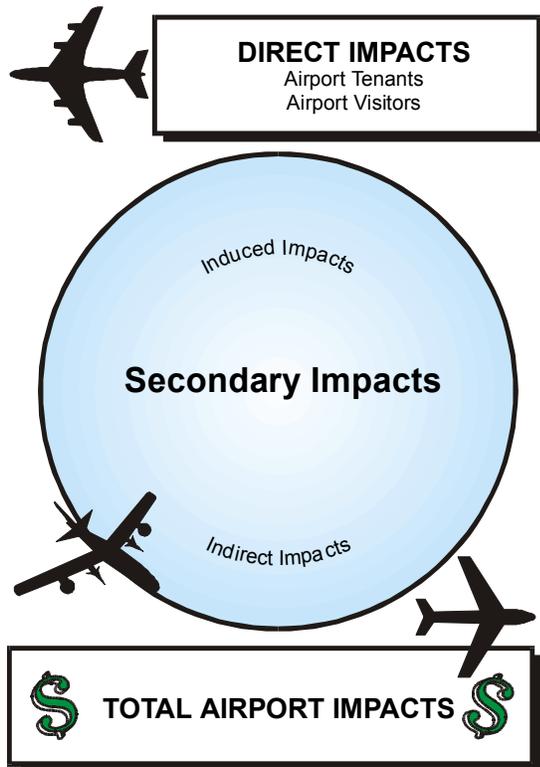
Boeing Field has an air traffic control tower and two runways. Runway 13R-31L is 10,001 feet long, 200 feet wide, has a grooved-asphalt surface, and is equipped with high intensity runway lights. Runway 13R has a medium intensity approach lighting system with sequenced flashing lights as well as precision approach path indicators (PAPI). Runway 31L, the threshold of which is displaced 800 feet, is equipped with runway end indicator lights and PAPI's. Runway 13R and 31L each have CAT I precision approaches provided by instrument landing systems. Runway 13R has a LOC/DME approach as well as a published visual approach.

ECONOMIC IMPACTS

The economic impacts of Washington's airports were calculated using a methodology which has evolved over the past decade and is nationally recognized as the standard for conducting economic impact studies of airports. The methodology is consistent with analytical models used by the Federal Aviation Administration (FAA), and employs the use of direct survey information and an input/output model (IMPLAN) as developed by the U.S. Department of Commerce to determine multipliers specific to the state of Washington for "secondary" economic impacts.

Types of Economic Impact - This study identified and examined those aviation activities at the public use airports in Washington that created economic impacts. These impacts are generated in three ways: **1) Direct**, **2) Indirect**, and **3) Induced Effects**. Combined, the three impact types yield the total economic impacts of an airport, as described below:





DIRECT ECONOMIC IMPACTS

These economic impacts occur as a consequence of providing aviation services. These impacts usually occur at the airports, and comprise the financial expenditures by firms which carry passengers (air carrier, air charter or air taxi) or cargo; firms which serve the air carrier and general aviation functions (airport tenants); governmental agencies which support aviation; ground transport firms; and others. In every instance, the impacts include only expenditures where the recipient is located within each airport's service area.

In addition to the Sponsor, there were 20 aviation related tenants at Boeing Field. These included Boeing Aircraft Company, WSDOT Aviation Division, American Avionics, Lindean Aircraft Upholstery, Alternate Air, American Flyers, Galvin Flying Service, Pacific Mooney, National Aviation Supply, Aviation Training Center, the Aviator's Store, Aviation Book Company, Flight Center,

Flightcraft, Wings Aloft, Helicopters Northwest, Emerald City Aircraft Sales, Aeroflight Executive Service, Museum of Flight, and Columbia Basin Soaring Association. There were approximately 89,309 visitors to the facility as a result of general aviation operations. Additionally, there were approximately 1,127 visitors to the facility as a result of commercial air service operations. The total combined direct output of on-airport tenants and general aviation and air carrier visitors was approximately \$73,952,700. These first-round expenditures were responsible for 1,010 jobs, which generated \$21,443,626 in wages.

INDIRECT ECONOMIC IMPACTS (Secondary Impact)

These economic impacts occur as a result of the use of aviation service. They include the regional expenditures made by air passengers who visit the region (at hotels, restaurants, ski facilities, etc.); expenditures by the region's residents associated with their use of aviation; and expenditures by firms having economic activity which is dependent on the airport. Non aviation-related tenants on the Airport include Randy's Restaurant and the Holiday Inn. Indirect impacts accounted for output of \$16,413,992, created approximately 194 jobs, and generated wages of \$5,813,321.





INDUCED ECONOMIC IMPACTS (Secondary Impacts)

The "indirect" and "direct" impacts represent increases in regional final demand. Such increases do not represent total economic impact; there is also a "multiplier" effect. This multiplier effect comprises the local value of money as it circulates through the local economy and as individuals or firms associated with airport business buy goods and services in the local economy. Induced impacts accounted for output of \$17,918,052, created approximately 231 jobs, and generated wages of \$6,017,371. Each airport's total economic impact is the sum of the three types of impacts.

TOTAL ECONOMIC IMPACTS

The total economic impact across the state were quantified by adding together the direct, indirect and induced impacts for each airport, and interpreting, comparing, and presenting the results.

The output of the IMPLAN model enabled the presentation of total economic impacts by airport in terms of three economic impact measures: 1) jobs (employment); 2) earnings (payroll), and; 3) economic activity (output). Each of these was determined based on individual multipliers per industry categories. In each case, total impacts include the aviation sector itself, as well as the "multiplier effect" of the aviation sector. The impacts were estimated using Year 1998 data.

All three indicators of economic impact are useful; however, the monetary measures should not be added together, as discussed below:

- **Jobs (Employment)** - The number of employees who are employed in the aviation industry, plus the aviation-oriented share of those that are employed in sectors that support the air passenger (hotels, restaurants, etc.) plus those employed in the industries included in the multiplier effect impacts. The number of jobs attributable to an industry is always greater than simply those in the industry itself, due to the "re-spending" of money. Total employment impact was approximately 1,438 jobs.
- **Labor Earnings (Payroll)** - The sum of the wages and salaries to all employed persons that the aviation industry pays, directly or indirectly, to deliver the output of final aviation demand. Earnings Impacts are always included in the Economic Activity totals, so they should not be summed with the Economic Activity impact. Earnings are a very conservative proxy for "value added." Earnings may be greater or less than the Direct and Use values depending on the industry type. Total earnings impact was \$33,274,317.
- **Economic Activity (Sales Output)** - The value of the aviation final demand (aviation or airport service), plus the "multiplier" effect (the sum of all of the intermediate goods and





services needed to produce the aviation final demand, plus the induced impacts of increased household consumption). Total economic activity equals the sum of intermediate demands, consumption demand, government demand, investment demand, and net export demand. Economic Activity is always larger than both the Direct and Use values because it includes the multiplier effect. The Airport's economic activity impact was \$108,284,742.

	Direct Impacts	+ Indirect Impacts	+ Induced Impacts	= Total Impacts
Jobs (Employment) 	Number of Jobs Supported 1,009.7	Number of Jobs Supported 193.9	Number of Jobs Supported 230.5	Total Number of Jobs Supported 1,437.6
Labor Earnings (Payroll) 	Annual Salary Supported \$21,443,626	Annual Salary Supported \$5,813,321	Annual Salary Supported \$6,017,371	Total Annual Salary Supported \$33,274,317
Economic (Sales Output) 	Contribution to Economy (Dollars) \$73,952,700	Contribution to Economy (Dollars) \$16,413,992	Contribution to Economy (Dollars) \$17,918,052	Total Contribution to Economy (Dollars) \$108,284,742

SUMMARY

On an annual basis, Boeing Field's tenants and its visitors in King County, Washington contributed the following total annual economic benefit:

