

EXECUTIVE SUMMARY

This report presents the results of a study of the economic benefits of Rogue Valley International - Medford Airport on the airport service area during 1999.

The airport service area includes Jackson, Josephine, Curry and Douglas Counties in Southern Oregon and a portion of Siskiyou County in California.

The Rogue Valley International - Medford Airport is located in Medford in Jackson County, approximately mid-way between Ashland to the South and Grants Pass to the North.

The airport is the third largest commercial service airport in Oregon. Commercial jet air service includes daily non-stop flights to Portland, Seattle, San Francisco and Los Angeles.

Annual passenger enplanements have increased from 150,000 in the mid 1990s to exceed 220,000 in 1999. The airport also provides general aviation services for both recreational and business flyers. There were 150 based aircraft at the airport during 1999.

The objective of this study was to analyze economic activity related to Rogue Valley International - Medford Airport and quantify the economic benefits associated with the presence of the airport.

MEASURING ECONOMIC BENEFITS

Airports bring benefits to the regional economy in many ways. As a transportation center, an airport facilitates commerce through the movements of air travelers and cargo with shorter time to destination than other modes of transport.

Airports bring essential services to a community, including enhanced medical care (such as air ambulance service), support for law enforcement and fire control, and courier delivery of mail and high value parcels. These services raise the quality of life for residents and maintain a competitive environment for economic development.

Although qualitative advantages created by the presence of an airport are significant and widely acknowledged, they are also difficult to measure. In studying airport benefits, regional analysts have emphasized indicators of economic activity for airports that can be quantified, such as dollar value of production of output, number of jobs created, and earnings of workers.

The Rogue Valley International - Medford Airport is a source of economic output (the production of aviation services) which creates employment and earnings for workers on the airport. In addition, visitors who arrive by air at the airport create demand for goods and services off the airport, such as lodging and retailing. Air visitors generally have greater expenditures as compared to visitors using other modes of travel. This spending produces revenues for firms in the hospitality sector as well as employment and earnings for workers **Output** in dollars can be evaluated from either

side of the producer/consumer transaction. From the perspective of the supplier of goods and services, the dollar value of output is equal to the revenues received by that producer. From the viewpoint of the consumer, the dollar value of the goods and services of output is equal to the amount that the consumer spent to purchase that output.

In addition to the private businesses there are also administrative agencies that make expenditures in the economy as they produce services for the community. In any given year, expenditures for agencies are determined by the agency budget. Usual practice is to define the budgets of agencies as an indicator of the dollar value of their production or output.

The sales of on-airport firms and the budgets of on-airport administrative agencies were utilized to measure the value of output on the airport for 1999. The value of output produced off-airport by suppliers of goods and services to air visitors was measured by spending as reported on visitor surveys. These output indicators were combined and labeled as **Revenues** in this study.

Employment is a measure of the number of jobs supported by the revenues created by the presence of Rogue Valley International - Medford Airport. Employment in private firms and administrative agencies was tallied to determine the number of jobs due to the presence of the airport.

Earnings represent the dollar value of payments received by workers (as wages) and business proprietors (as income) who create the goods and services that produce revenues.

DATA COLLECTION

Information on revenues, employment and earnings was collected directly from suppliers and users of aviation services to measure economic activity created by the presence of the airport. Sources of information included interviews and surveys of on-airport employers including private sector firms and government agencies, the Jackson County Airport Authority, airline passengers, and general aviation flyers who used the airport during the 1999 period. Survey forms are shown in an appendix to this report.

Airport Benefit Surveys

- ! Airport Tenants/Employers
- ! General Aviation Visitors
- ! Airline Visitors

Airlines, businesses in the terminal, airport tenants, and government agencies on the airport received a survey form designed for airport employers. Items requested included annual average employees, payroll, operating expenditures, and revenues.

The initial mail survey was followed by telephone or personal contact until all on-airport employers had responded. Therefore, the responses of on-airport employers should be regarded as complete as of mid-year 1999.

General Aviation Visitor Surveys were mailed to owners of aircraft that had visited the area during the past year. The FBO line operations staff maintain excellent records on visiting aircraft and were able to provide addresses of

several hundred registered aircraft owners from fuel slips and tie down logs.

Commercial airline passengers who were visitors to the area were surveyed in the airport terminal in 1999 to determine purpose of visit, length of stay, and expenditures while in the Rogue Valley region.

SOURCES OF ECONOMIC BENEFITS

Economic benefits (output, employment and earnings) are created when economic activity takes place both on and off the airport. The three sources of economic benefits are (1) on-airport benefits, (2) air visitor benefits and (3) indirect (or multiplier) benefits. The economic benefits of Rogue Valley International - Medford Airport by source and location are shown in Table 1.

On-Airport Benefits

There were twenty-nine employers located on Rogue Valley International - Medford Airport in 1999, including airlines, air cargo, FBO services, aviation businesses, flight training, food services, auto rental, air traffic control tower, the airport authority, and various government agencies.

Including the revenues and employment created by outlays for airport capital projects, these economic units reported on-airport benefits of:

! \$37.8 Million Revenues

! \$13.4 Million Earnings

! 535 On-Airport Jobs

Air Visitor Benefits

An additional source of aviation-related spending comes from visitors to the area that arrive at Rogue Valley International - Medford Airport. When air travelers make off-airport expenditures these outlays create revenues (sales) for firms that supply goods and services to visitors.

During 1999, there were 105,063 visitors arriving by commercial air carriers. These travelers spent a total of \$32.1 million in the service area during their stay.

There were 10,305 transient (visiting) general aviation aircraft and 22,671 general aviation air travelers that arrived at Rogue Valley International - Medford Airport. Expenditures by general aviation visitors summed to \$1.8 million for the year.

Airline and GA visitors traveling for business or personal reasons spent for lodging, food and drink, entertainment, retail goods and services, and ground transportation including auto rental and taxis, creating airport service area revenues, employment and earnings of:

! \$33.9 Million Revenues

! \$11.0 Million Earnings

! 1,045 Off-Airport Jobs

Direct Benefits

The direct benefits represent the sum of on-airport and off-airport (visitor) revenues, earnings and employment due to the presence of the airport and its aviation activity.

Direct benefits are the “first round” impacts and do not include any multiplier effects of secondary spending. The direct benefits of on-airport and off-airport economic activity related to Rogue Valley International - Medford Airport in 1999 were:

! \$71.7 Million Revenues

! \$24.4 Million Earnings

! 1,580 Jobs

The airport presence created benefits to workers by providing income and earnings within the region in 1999 of \$24,403,089 representing the payment for the labor component of the economic activity due to the presence of the airport.

There were 1,580 jobs created directly by suppliers and users of aviation services. Two out of every three jobs directly associated with the presence of the airport were in sectors such as lodging and retail which serve air visitors.

Indirect Benefits (Multiplier Effects)

Indirect benefits are created when the initial spending by airport employers or visitors circulates and recycles through the economy. These indirect benefits are often referred to as “multiplier effects.”

In contrast to initial or direct benefits, the indirect benefits measure the magnitude of successive rounds of respending as dollars are spent by those who work for or sell products to airport employers or the hospitality sector.

For example, when an aircraft mechanic's wages are spent to purchase food, housing,

clothing, and medical services, these dollars create more jobs and income in the general economy of the region through multiplier effects of respending.

Multiplier impacts were computed using coefficients reported in the statewide airport economic impact study prepared for the Oregon Department of Transportation Aeronautics Section (see *Economic Impact of Airports*, Technical Report, The Airport Technology and Planning Group, Inc, December 1996).

The initial direct revenue stream in the service area of \$71.7 million created by the presence of Rogue Valley International - Medford Airport stimulated indirect benefits from multiplier effects within the airport service area of:

! \$78.4 Million Revenues

! \$21.0 Million Earnings

! 1,496 Jobs

Total Benefits

The total benefits of the airport are the sum of the direct benefits and the indirect benefits which result as dollars recirculate in the regional economy. The total benefits of Rogue Valley International - Medford Airport in 1999 were calculated to be:

! \$150.1 Million Revenues

! \$45.4 Million Earnings

! 3,076 Total Employment

TABLE 1
Summary of Economic Benefits: 1999
Rogue Valley International - Medford Airport

	BENEFIT MEASURES		
	Revenues	Earnings	Employment
On-Airport Benefits Airlines Airport Businesses FBO Services Tower Airport Authority Capital Projects	\$37,825,133	\$13,401,718	535
Air Visitor Benefits Lodging Food/Drink Retail Goods/Services Entertainment	33,911,076	11,001,371	1,045
Direct Benefits: Sum of On Airport & Air Visitor Benefits	71,736,209	24,403,089	1,580
Indirect Benefits	78,371,839	21,003,599	1,496
TOTAL BENEFITS	\$150,108,048	\$45,406,688	3,076

ON-AIRPORT BENEFITS

This section provides more detail on the economic benefits associated with activity on site at Rogue Valley International - Medford Airport.

Table 2 illustrates the data on revenues, employment and earnings obtained from mail surveys and interviews conducted with airport tenants during 1999. Values shown for revenues (sales), employment and earnings do not include multiplier effects of indirect benefits.

Copies of the surveys used to compile these figures are included in this report as an appendix. To encourage employers to release confidential figures on employment, earnings and revenues, those responding to the surveys were told that the figures would be used only as aggregate totals for each category. Therefore, details on employment by individual respondents are not presented in Table 2.

Airport Employers

There were 22 private sector employers on the airport during the 1999 study period. Employers included both suppliers and users of aviation products and services.

Commercial air carriers at the airport include Horizon, United and United Express. Airline personnel handle ticket sales and supervise passenger boarding and deplanement. Air carriers employ some 50 persons in full and part time categories.

The value of ticket sales on the airport was

estimated at \$36 million in 1999. This calculation was based on Department of Transportation data showing 54 percent of passenger enplanements originate in Medford and an average ticket price of approximately \$300. (These revenues accrue to the airlines in their corporate or regional headquarters and only a portion remains in the service area as operations outlays and payments to employees.)

In addition to airline employees, there are more than 120 other private sector jobs in the airport terminal building for workers in auto rental firms and at the restaurant and gift shop.

Air cargo employment exceeds 50 workers. On-airport firms include Federal Express, United Parcel Service, Airborne Express, and Medford Air Cargo. Other air cargo firms have employees and trucks with gate access for pick up and delivery.

Fixed base operators offer a full range of general aviation support services and provide employment for more than 75 persons. Operators include Jet Center MFR, Pacific Flights, Medford Air Service and Logan & Reavis Aviation. Other on-site firms such as Erickson Air Crane and Mercy Flights are also important private sector employers.

Total private sector employment on the airport was 412 persons with earnings of \$8.4 million. Private sector revenues (not including airline ticket sales) were \$27.7 million in 1999.

There were 7 government agencies on the airport in 1999, including the FAA tower staff and Jackson County Airport Authority, other FAA, INS, Weather Service, US Customs, and

TABLE 2
On-Airport Benefits: Revenues, Earnings and Employment
Rogue Valley International - Medford Airport

	BENEFIT MEASURES		
	Revenues	Earnings	Employment
Sources of On-Airport Benefits Airlines, Air Cargo FBO Services Automobile Rental Businesses on Airport Pilot Training & Supplies Air Traffic Control Tower Air Rescue and Fire Fighting Weather Service, INS, FAA Jackson County Airport Authority	\$33,620,133	\$12,079,690	499
Capital Projects	4,205,000	1,322,028	36
ON-AIRPORT BENEFITS	\$37,825,133	\$13,401,718	535

Source: Survey of airport employers, 1999

the Forest Service tanker base. Total government employment was 87 workers.

Capital Projects

Capital projects are vital for airports to maintain safety and provide for growth. Capital spending also creates jobs and injects dollars into the local economy. Capital improvements for 1999 were \$4.2 million, creating 36 construction related jobs with earnings of \$1.3 million for the year.

Summary of On-Airport Benefits

On-airport activity at Rogue Valley International - Medford Airport created \$37.8 million in revenue flows, including capital improvement spending. These revenue flows supported employment of 535 workers on the airport, with earnings of \$13.4 million paid to workers and proprietors. The private sector accounted for 4 out of 5 airport jobs in 1999.

AIR VISITOR BENEFITS

Rogue Valley International - Medford Airport attracts visitors from throughout the Western region and the nation who come to the area for recreational, business and personal travel. This section provides detail on economic benefits from air travelers who used the airport in 1999. Values shown for spending (revenues), employment and earnings do not include multiplier effects of indirect benefits unless specifically noted.

Airline Visitors

In 1999, there were 228,398 airline enplanements at Rogue Valley International - Medford Airport. According to an analysis of the air traveler origin and destination data bank of the U. S. Department of Transportation, 46 percent or 105,063 were visitors to the area (Table 3).

The top five origination cities for travel to the Rogue Valley International - Medford Airport were San Francisco, Portland, Los Angeles, Seattle and San Diego.

During the summer of 1999, a questionnaire was administered in the airport terminal to gather information on purpose of travel, length of stay, destination, and expenditures by category of spending for airline visitors. Of the 1,000 surveys administered, 853 were returned with complete information for inclusion in this report.

The average spending per trip reported by all airline visitors in all travel categories (business, personal and tourism) was \$343 (figures are rounded to simplify tables). Multiplication of \$343 by air visitors yields total airline visitor spending of \$36,036,609 for 1990. (Note: this figure includes \$3.9 million of "on-airport" spending at on-site

rental car outlets.)

TABLE 3
Airline Visitor Travel Patterns
Rogue Valley International -
Medford Airport

Enplanements	228,398
Percent Visitors	46%
Number of Visitors	105,063
Avg. Spending per Trip	\$343
Total Airline Visitor Spending	\$36,036,609

Source: Airline Visitor Survey 1999

Detail on travel patterns by purpose of travel is shown in Table 4. The survey results revealed that 48 percent of air visitors at the Rogue Valley International - Medford Airport were those whose main purpose was personal travel, primarily visiting friends or relatives. Another 28 percent were traveling for business purposes. The smallest category was the 24 percent of visitors who described themselves as tourists to the region.

The average length of stay for all airline travelers was 5.8 nights. Business travelers recorded the shortest stay (3.5 nights) and those visiting for personal reasons had the longest stay (8.1 nights). Tourists stayed an average of 5.0 nights.

Airline travelers contributed to 621,761 visitor days for the airport service area during 1999. Two thirds of visitor days were accounted for by personal travelers. Although more than one quarter of visitors to the service area were business travelers, those

**TABLE 4
Airline Visitor Spending Per Person Per Trip
Rogue Valley International - Medford Airport**

	Business	Personal	Tourism	Overall
Purpose of Trip (By Person)	28%	48%	24%	100%
Purpose of Trip (By Visitor Days)	14%	66%	20%	100%
Party Size	1.3	1.6	2.2	1.6
Nights Stay	3.5	8.1	5.0	5.8
Lodging/Trip/Person	\$216	\$33	\$169	\$105
Food/Trip/Person	\$119	\$87	\$91	\$92
Retail/Trip/Person	\$66	\$76	\$62	\$66
Entertainment/Trip	\$22	\$34	\$88	\$37
Ground Trans/Trip	\$94	\$20	\$33	\$43
Total Person/Trip	\$517	\$250	\$443	\$343
Percent Citing “Medford” as Primary Destination	68%	33%	6%	36%

Source: Survey administered in terminal in July 1999; sample size = 853

traveling on business accounted for only 14 percent of visitor days. This is because the typical business traveler stayed in the area a relatively short period of time. (Analysis of the surveys identified 6 percent of travelers who were in the area for less than one day, arriving in the morning, conducting business, and departing late in the day.)

“Medford” was cited as the primary destination for 68 percent of business travelers, but fewer than 10 percent of tourists listed a visit to Medford as their main objective.

On an average day, there were 1,703 airline travelers in the area spending an average of \$58 per person per day.

Spending per person per trip varied by purpose of travel. Those traveling on business had larger than average outlays on most categories of spending, reporting lodging of \$216, food costs of \$119, and ground transportation of \$94. Business travelers spent less than the average amount on entertainment (\$22).

The “overall” average expenditures for all visitors

shown in Table 4 were computed by weighting the averages for each category of spending by the “purpose of trip” percentages. The overall spending figures may be thought of as the expected spending by any given visitor arriving at Rogue Valley International - Medford Airport.

For example, lodging is the largest spending component overall, at \$105, and a typical group of 1,000 visitors will spend \$105,000 on lodging during their stay. However, some persons will spend more and some will spend less.

Airline visitors traveling for personal reasons were most likely visiting friends and relatives in the service area. Many of these travelers reported no expenditures for lodging and, occasionally, food. It should be noted that this is somewhat of an understatement of the actual impact of their visit, since the grocery bill of their host was very likely increased during the time of the airline traveler’s visit. The average expenditure for lodging for personal travelers was \$33.

Tourists reported the largest outlays for entertainment (\$88 compared to an average of \$37) possibly reflecting the costs of outdoor expeditions or local events such as theater and concerts.

The figures for spending per person per trip in Table 4 can be used to derive the economic value of visitor expenditures from the average airliner arriving at Rogue Valley International - Medford Airport. The average arriving airliner at the airport carries 30 passengers (Table 5). Of these, 46 percent are visitors to the airport service area. The 14 visitors per aircraft will spend on average \$343 per person per trip. Total airline visitor spending of \$4,802 of gross revenues are injected into the local economy for each arriving airliner.

TABLE 5 Economic Value of Visitor Spending Associated With Average Airliner Rogue Valley International - Medford Airport	
Item	Value
Avg. Passengers Per Plane	30
Percent Visitor	46%
Number of Visitors Per Plane	14
Trip Expenditures per Person	\$343
Value-One Arriving Airliner =	\$4,802
Value Including Multiplier =	\$11,155
Source: Derived from airline visitor survey 1999	

The first round spending by visitors circulates within the local economy, where a portion will be spent again, yielding a total benefit 2.323 times the initial impact. Thus, the total spending associated with the average arriving aircraft at Rogue Valley International - Medford Airport was \$4,802 X 2.323 = \$11,155 after accounting for all multiplier effects.

The economic benefits from airline visitors as measured by revenues, earnings and employment are shown in Table 6. Total expenditures by airline travelers in the airport service area were estimated as \$36.1 million in 1999. A portion of auto rental and other ground transport spending was undertaken on the airport and is included in the “on-airport” revenue category in Tables 1 and 2. Off-airport spending by airline visitors, after this adjustment, was \$32.1 million.

The largest revenues were created by expenditures on lodging by airline passengers, summing to \$11.0

**Table 6
Economic Benefits from Airline Visitors - Revenues, Earnings and Employment
Rogue Valley International - Medford Airport**

Category	Revenues	Earnings	Employment
Lodging	\$ 11,031,615	\$3,422,934	258
Food/Drink	9,653,188	3,090,623	284
Retail Sales	6,888,981	2,643,757	264
Entertainment	3,933,559	1,169,242	176
Gaming	614,011	125,648	11
TOTAL	\$ 32,121,354	\$10,452,204	993

Note: Visitor spending based on passenger survey, 1999; Earnings and employment figures were derived from the IMPLAN input-output model used in the statewide airport economic impact study prepared for the Oregon Department of Transportation Aeronautics Section (see *Economic Impact of Airports*, Technical Report, The Airport Technology and Planning Group, Inc, December 1996). Employment is not necessarily full time equivalents; includes full and some part time workers, figures rounded to head counts. On-airport portion of expenditures by visitors on ground transportation allocated to “on-airport” category to reflect location of auto rental agencies and origination of taxi services at the airport terminal building.

million in 1999. Visitor spending in the lodging sector of the airport service area created 258 jobs with earnings for workers of \$3.4 million.

The greatest number of jobs associated with airline visitor spending were in food and drink establishments where 284 jobs were created. Airline visitor spending in eating and drinking places was \$9.7 million. The earnings to workers were \$3.1 million. Airline visitors spent \$6.9 million in retail establishments in 1999. These outlays created 264 jobs with earnings of \$2.6 million.

Ground transport spending by visitors off the airport was \$614,011. (The on-airport component was \$3.9 million, as reported by on-airport rental car firms, who employed some 50 persons.).

The \$32.1 million off airport spending by airline visitors arriving at Rogue Valley International - Medford Airport created a total of 993 direct jobs in the service area, with earnings to workers and proprietors of \$10.5 million for 1999.

General Aviation Visitors

There were a total of 10,305 transient general aviation aircraft arrivals at Rogue Valley International - Medford Airport in 1999. A questionnaire was administered to general aviation visitors to gather information on travel patterns including length of stay and expenditures by category of spending.

Some visitors stopped only briefly at the airport, some stayed for most of a day, and some stayed

