

**TED STEVENS
ANCHORAGE
INTERNATIONAL AIRPORT:
ECONOMIC SIGNIFICANCE
2007**

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Prepared for
Ted Stevens Anchorage International Airport

September 2007



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Acknowledgment

This study was funded by the Ted Stevens Anchorage International Airport

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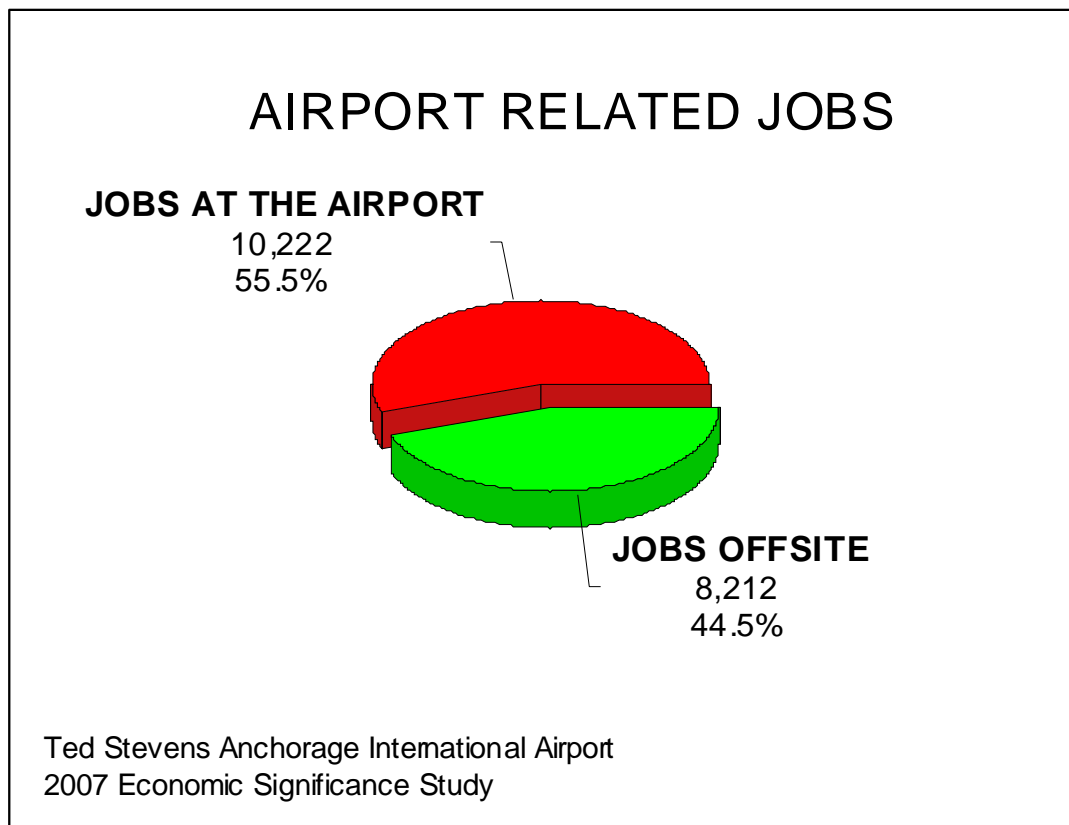
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1. SUMMARY OF FINDINGS

Employment at the Ted Stevens Anchorage International Airport in 2007 is estimated at 10,222 (annual average full-time equivalent jobs), generating an annual payroll of \$562 million. This represents about 7 percent of all the wage and salary jobs in Anchorage and 9 percent of total payroll. Adding the offsite jobs generated by airport businesses making purchases and workers spending their earnings within the community, the total economic significance of the airport grows to 18,434 jobs with a payroll of \$850 million (Figure 1).

Figure 1



In 2006 there were 146.8 thousand total wage and salary jobs in Anchorage. The 18,434 jobs attributable to activity at the airport represent 12.6 percent of that total—1 out of 8. The payroll associated with the airport-related jobs represents 13.1 percent of the total wage and salary payroll of the city—1 out of 8 dollars in payroll (Figure 2).

Figure 2

The airport is about 5 times the size one would expect for a community of 260 thousand, but only partly because most of the travel between Anchorage and the rest of the United States is by air. Most of the activity at the airport is associated with international air cargo, non-Alaska visitors, and non-Anchorage residents of Alaska. Together, these activities at the airport, which bring new money into the economy and contribute directly to the economic base of Anchorage, account for 7,021 jobs and \$377 million of payroll. If we add the offsite activity generated by these onsite jobs, the total impact of these basic activities is 12,695 jobs and \$570 million of payroll. The basic activities at the airport are clearly one of the important components of the economic base of the community.

As significant as these figures are, the contribution of the airport to the economy of the community and the state goes beyond the generation of jobs and payroll from providing air transport and other services. The airport is part of the transportation infrastructure that links Alaskans and Alaska businesses to each other and to the rest of the world. Without those links, both the cost of doing business and the cost of living would be much higher than they are today, precluding many economic activities and making Alaska a less attractive place to live and work. Although we cannot put a dollar figure on the value of these services, they are clearly substantial.

2. INTRODUCTION¹

Ted Stevens Anchorage International Airport covers 4,700 acres and includes both domestic and international terminals as well as general aviation and air-taxi bases around Lake Hood. Unlike airports in other U.S. cities of comparable population size (about 260 thousand) most activity at Anchorage International revolves around the provision of services to the international air cargo industry, tourists and other visitors from outside Alaska, and Alaskans living outside the greater Anchorage region. The airport also is home to a number of government and private tenants who find it advantageous to locate close to air transport services.

Although the number of revenue landings at the airport is sensitive to business conditions outside Alaska, the number of total revenue landings continues to grow even as the average size and capacity of aircraft increases. The historical trend shows that the number of cargo landings is increasing as a share of the total and will soon overtake passenger landings. Revenue landings exceeded 100 thousand for the first time in fiscal year 2006² (Table 1).

Table 1. ANCHORAGE INTERNATIONAL AIRPORT: ANNUAL TOTAL REVENUE LANDINGS			
Fiscal Year	Passenger	Cargo	Total
1990	59,352	19,079	78,431
1991	65,468	18,849	84,317
1992	71,459	20,100	91,559
1993	65,086	19,106	84,192
1994	60,617	21,732	82,349
1995	61,142	23,363	84,505
1996	55,474	26,552	82,026
1997	58,720	31,379	90,099
1998	60,539	34,003	94,542
1999	53,814	33,932	87,746
2000	54,427	38,144	92,571
2001	53,504	39,881	93,385
2002	52,773	39,356	92,219
2003	51,223	41,380	92,613
2004	49,312	42,351	91,665
2005	49,993	45,950	95,973
2006	53,405	47,091	100,496

Source: Ted Stevens Anchorage International Airport

¹ This brief report updates our previous studies—The Economic Contribution of the Anchorage International Airport (1995), Anchorage International Airport 1998: Economic Significance (1998), and The Economic Significance of the Ted Stevens Anchorage International Airport (2001)—documenting the growing importance of the airport to the economy of Anchorage. More detailed analysis and descriptions of methods can be found in these earlier reports.

² July through June.

Passenger traffic continues to grow at the airport, in spite of a downward trend in the number of transit passengers traveling on international flights. Growth is coming from both the continued increase in tourist traffic through Anchorage and growth of the Alaska population (Table 2).

Table 2. ANCHORAGE INTERNATIONAL AIRPORT: ANNUAL PASSENGER ACTIVITY (thousands)				
Fiscal Year	Passenger Departures (Enplanements)	Passenger Arrivals (Deplanements)	Transit	Total
1990	1,587	1,560	1,529	4,676
1991	1,729	1,744	1,069	4,542
1992	1,860	1,846	785	4,491
1993	1,836	1,832	577	4,245
1994	1,917	1,899	543	4,359
1995	2,040	2,039	598	4,677
1996	2,051	2,034	679	4,764
1997	2,132	2,135	782	5,049
1998	2,126	2,124	767	5,017
1999	2,136	2,113	688	4,938
2000	2,189	2,184	648	5,021
2001	2,243	2,238	626	5,107
2002	2,233	2,217	464	4,915
2003	2,197	2,195	399	4,791
2004	2,251	2,251	375	4,876
2005	2,393	2,385	346	5,124
2006	2,408	2,398	237	5,043

Source: Ted Stevens Anchorage International Airport

Cargo activity at the airport is usually summarized by certified maximum gross takeoff weight (CMGTW). Although this indicator includes domestic as well as international cargo, its rapid growth is attributable to the increase in international cargo traffic moving through the airport in recent years (Table 3).

Table 3. ANCHORAGE INTERNATIONAL AIRPORT: ANNUAL CARGO FLIGHT WEIGHT (CMGTW) (million pounds)	
Fiscal Year	Total
1990	10,345
1991	10,243
1992	10,965
1993	10,530
1994	11,422
1995	12,863
1996	14,109
1997	15,846
1998	17,473
1999	17,399
2000	20,268
2001	21,140
2002	20,921
2003	23,973
2004	24,460
2005	26,732
2006	27,968
Source: Ted Stevens Anchorage International Airport	

Another commonly cited measure of cargo activity at the airport is the total weight of all the cargo moving through the airport, including cargo in transit. Anchorage now ranks number 3 in the world, behind only Memphis and Hong Kong (Table 4).³

³ Anchorage is ranked number one in the U.S. in cargo landed weight, ahead of Memphis.

**Table 4. ANCHORAGE INTERNATIONAL AIRPORT:
RANK AMONG THE WORLD'S BUSIEST CARGO AIRPORTS IN 2006**

Rank	Airport	Total Cargo (thousand metric tones)	Percent Increase from 2005
1	Memphis	3,692	2.6 %
2	Hong Kong	3,609	5.1 %
3	ANCHORAGE	2,804	5.9 %
4	Seoul	2,337	8.7 %
5	Tokyo	2,280	(.5) %
6	Shanghai	2,159	16.3 %
7	Frankfurt	2,128	8.4 %
8	Louisville	1,983	9.3 %
9	Singapore	1,932	4.2 %
10	Los Angeles	1,907	(1.1) %
Total cargo includes loaded + unloaded freight + mail. Anchorage includes transit freight Source: Airport Council International at www.airports.org , 2/29/07. Figures are preliminary.			

Air taxi, charter, and general aviation activity at the airport have changed little over the years and account for a very small share of total employment and payroll.

There are a number of government agencies with operations at the airport, some of which directly use air services and others that benefit from being close to the airport, but could be located elsewhere. The largest tenant in the former category is the Kulis Air Force Base while the largest tenants in the latter category are the U.S. Postal Service and the South Central Region Headquarters of the Alaska Department of Transportation.

3. JOBS AND PAYROLL AT THE AIRPORT

A count of jobs at the airport yields an estimate for 2007 of 10,641⁴. If we adjust for the fact that some of these are part time jobs⁵, the resulting annual average full-time equivalent employment (FTE) at the airport is 10,222. We use this number in the figures and tables that follow. Employment at the airport is slightly higher in the summer than winter because of tourist visitors and those Alaska economic sectors that experience higher demand for transportation services in the summer than in winter.

The annual average wage and salary employment in Anchorage in 2006 was 146.8 thousand. Consequently, employment at the airport represents about 7 percent of the total for the city.

Jobs by Employer

Total employment at the airport categorized by the different types of employer is shown in Table 5 and in Figure 3.

The commercial air carriers—both those operating internationally and domestically—account for half of total jobs. The main activities of the commercial carriers include the transportation of passengers and freight as well as package handling. Private businesses that provide services primarily to the commercial carriers—fixed base operators, fuel distributors, and caterers—account for another 11 percent of the total. Private businesses engaged in various aspects of freight forwarding account for about 2 percent of the total.

The activities of the air taxis, charter operations, and general aviation account for about 1 percent of total employment.

Businesses providing services to passengers—concessions such as restaurants and car-rental agencies—together account for 5 percent of employment.

The operation of the airport—both airport employees and associated federal and state workers in agencies including the FAA (Federal Aviation Administration) and TSA (Transportations Security Administration)—accounts for 10 percent of total jobs.

Airport-related construction—both the portion publicly funded and the share from private investment in new and upgraded facilities—varies annually but in recent years it has contributed about 7 percent to total jobs at the airport.

Finally, a number of public agencies like the (U.S. Post Office and Kulis Air Force Base) and private businesses have facilities at the airport that benefit from access to transportation services. About 13 percent of total employment is in this category.

⁴ Including seasonal, but excluding temporary workers.

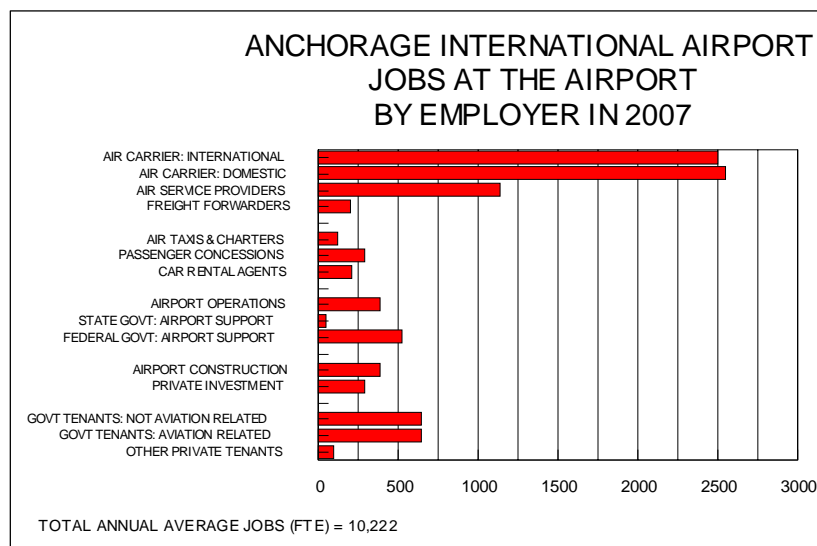
⁵ About 850 jobs.

**Table 5. ANCHORAGE INTERNATIONAL AIRPORT:
TOTAL FULL TIME EQUIVALENT JOBS IN 2007**

	Annual Employment	Share
TOTAL	10,222	
Air Carrier: Domestic	2,564	24.6%
Air Carrier: International	2,513	25.1%
Air Service Providers*	1,146	11.2%
Freight Forwarders	215	2.1%
Air Taxis and Charters	134	1.3%
Passenger Concessions	306	3.0%
Car Rental Agents	225	2.2%
Airport Operations	396	3.9%
State Government: Airport Support	59	0.6%
Federal Government: Airport Support	536	5.2%
Airport Construction	400	3.9%
Private Investment	300	2.9%
Government Tenants: Aviation Related	661	6.5%
Government Tenants: Not Aviation Related	661	6.5%
Other Private Tenants	106	1.0%

* Includes fixed base operators, fuel distributors, and caterers.
Source: ISER estimate

Figure 3



An indicator of the importance of air transport activity for the economy comes from the fact that 6 of the 100 largest private companies in Alaska are in the air transportation business (Table 6.).

Table 6. SIX OF ALASKA'S 100 LARGEST PRIVATE EMPLOYERS ARE AIR TRANSPORT BUSINESSES		
Rank	Firm Name	Average Annual Statewide Employment
7	Alaska Airlines	1,585
15	Federal Express	1,178
43	Northwest Airlines	562
54	United Parcel Service	470
57	PenAir	457
78	Era Aviation	358
Source: Alaska Department of Labor, Alaska Economic Trends, August 2007.		

Payroll by Employer

The total payroll for jobs at the airport in 2007 is estimated to be \$562 million (Table 7). This compares to \$6.5 billion of total wages paid in Anchorage in 2006, so the payroll at the airport represents about 8.7 percent of the total for the city.

The share of the total Anchorage payroll generated at the airport is greater than the share of jobs because the average wage for jobs located at the airport—\$55 thousand—is considerably above the city-wide average of \$44 thousand.

The average wage paid at the airport varies with the type of business, with air carrier and federal government jobs being at the top end, and retail concession jobs at the lower end.

**Table 7. ANCHORAGE INTERNATIONAL AIRPORT:
TOTAL PAYROLL IN 2007**

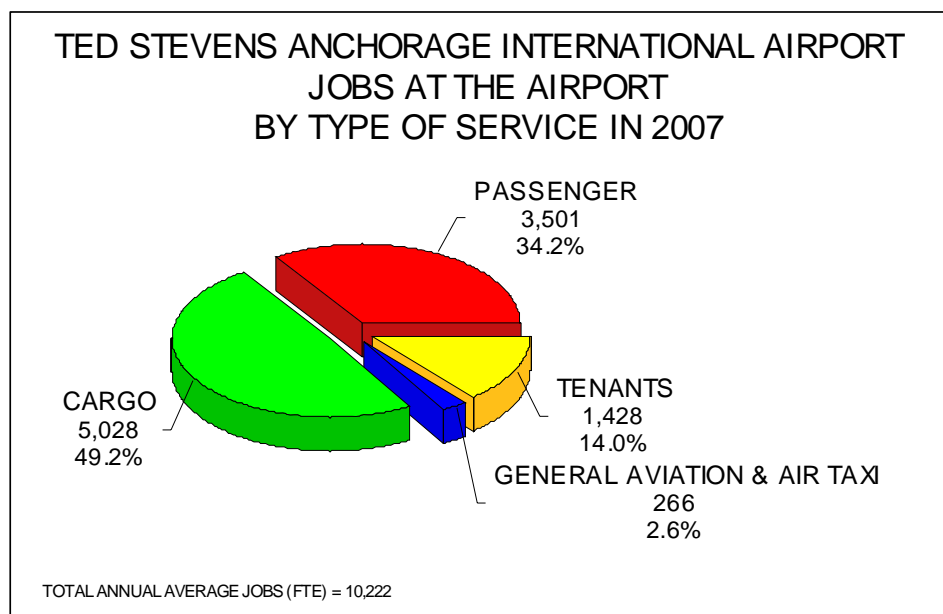
	Payroll (million \$)	Average Annual Earnings (thousand \$)
TOTAL	\$562.0	\$55,000
Air Carrier: Domestic	\$151.8	\$59,184
Air Carrier: International	\$148.7	\$59,184
Air Service Providers*	\$42.0	\$36,624
Freight Forwarders	\$8.2	\$37,896
Air Taxis and Charters	\$7.0	\$52,344
Passenger Concessions	\$8.7	\$28,260
Car Rental Agents	\$5.0	\$22,032
Airport Operations	\$18.2	\$45,984
State Government: Airport Support	\$2.7	\$45,984
Federal Government: Airport Support	\$36.2	\$67,440
Airport Construction	\$26.7	\$66,780
Private Investment	\$20.0	\$66,780
Government Tenants: Aviation Related	\$44.6	\$67,440
Government Tenants: Not Aviation Related	\$37.5	\$56,712
Other Private Tenants	\$5.0	\$46,944
* Includes fixed base operators, fuel distributors, and caterers. Source: ISER estimate		

Jobs by Service Provider

Another way to present the number of jobs at the airport is by allocating them among the different services provided—cargo, passengers, general aviation, and other (tenants). This requires, for example, determining what share of airport operations employment should be attributed to each of these activities. Although that allocation cannot be precise, the resulting picture does provide a more concise summary of the activities at the airport than the detailed listings by type of business (Figure 4).

The result of that allocation underscores the importance of cargo operations since we estimate about 49 percent of all jobs at the airport are dependent on the movement of cargo. The handling of passengers, both Alaskans and visitors, accounts for 34 percent of the jobs at the airport. General aviation and air-taxi operations are a small part of the total—less than 3 percent. Airport tenants (mostly government agencies) account for the remaining 14 percent.

Figure 4



Jobs by Client Served

A third useful way to characterize the jobs at the airport is to divide them into categories based on the customer. We can think of the airport as serving 5 major types of customers: the international air cargo industry, Anchorage residents, other Alaskans, non-Alaskan visitors, and public/private tenants. As with the allocation by type of service, this requires deciding what share of each business serves each type of customer, and although that is straightforward for some businesses, many businesses at the airport serve multiple types of clients defined in this way (Figure 5).

Viewed in this way, we see that the airport can be thought of as composed of 5 parts. The first is the passenger and cargo service to Anchorage businesses and households as well as general aviation services. This is only a small part of the total—17 percent—which underscores the fact that the airport would be much smaller if it were not providing services outside the community.

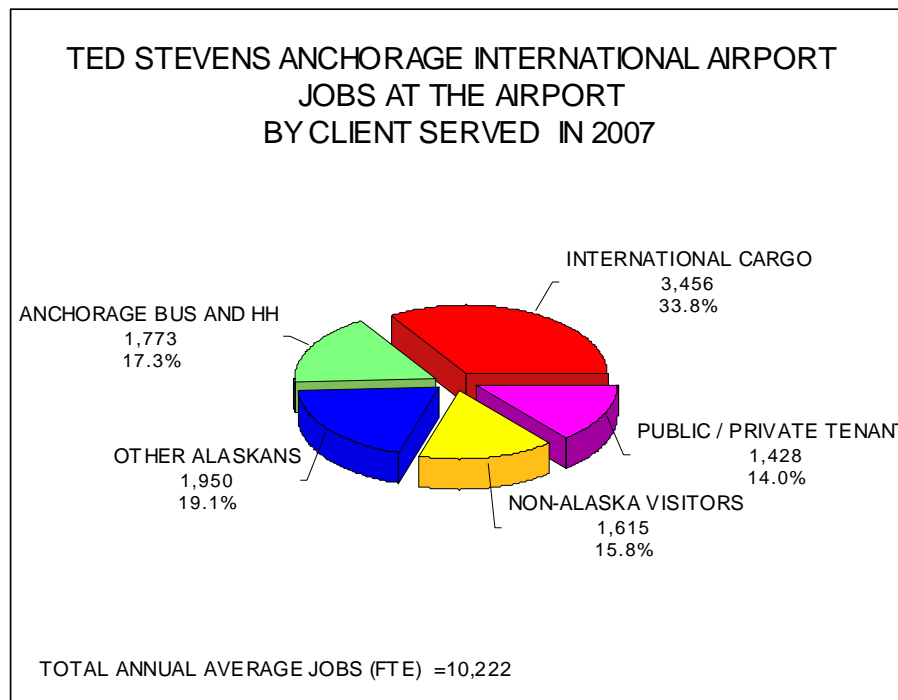
The largest customer category is international cargo, which accounts for 34 percent of all the jobs. This is a rough estimate of the share of all airport employment that depends, directly and indirectly, upon international cargo operations.

About 19 percent of all jobs depend on providing services to households and businesses in other parts of Alaska. This is the part of the airport that can be characterized as a hub.

Services to passengers from outside the state, mostly tourist visitors, account for about 16 percent of the total. This represents the part of the airport that serves the tourist industry.

Finally, a number of government and private tenants located at the airport account for 14 percent of the jobs. These tenants benefit from their location on airport land.

Figure 5



4. TOTAL ECONOMIC SIGNIFICANCE OF THE AIRPORT

The activities at the airport create jobs and payroll in Anchorage, not only onsite but also offsite. These offsite jobs arise from airport businesses making purchases of goods and services offsite (including spending by layover crews) as well as from airport workers who spend their paychecks on goods and services within the community. We estimate that 8,212 jobs and \$288 million of payroll offsite within Anchorage are dependent on the activities at the airport (Table 8).

For example, in 2006, 924 million gallons of fuel were purchased by businesses at the airport at a cost of about \$1.4 billion. This infusion of cash created jobs in the refining and transportation sectors of the economy.

Combining onsite and offsite jobs results in a total of 18,434 jobs in Anchorage that are attributable to operations on airport property. These jobs account for \$850 million in payroll. Based on total wage and salary employment of 134,500 in Anchorage in 2006, about 12.5 percent of the wage and salary jobs are attributable to activities taking place at the airport. About 13 percent of the total payroll is attributable to activities taking place at the airport. If it were a separate city, the airport would be one of the largest economies in the state.

Table 8. ANCHORAGE INTERNATIONAL AIRPORT: COMMUNITY-WIDE JOBS AND PAYROLL IN 2007						
	Sum	Inter- national Cargo	Anchorage Residents	Other Alaskans	Non-Alaska Visitors	Tenants
JOBS	18,434	6,585	3,190	3,409	2,702	2,549
Onsite	10,222	3,456	1,773	1,950	1,615	1,428
Offsite	8,212	3,129	1,417	1,459	1,087	1,121
PAYROLL (million \$)	\$ 850	\$ 302	\$ 148	\$ 157	\$ 111	\$ 132
Onsite	\$ 562	\$ 190	\$ 98	\$ 107	\$ 80	\$ 87
Offsite	\$ 288	\$ 112	\$ 50	\$ 50	\$ 31	\$ 45
Offsite includes multiplier effect and crew layover effect Source: ISER estimate						

Table 8 shows the total economic significance of activities at the airport broken out by type of client served. International cargo produces the largest share of jobs and payroll in the community, accounting for 6,585 jobs and \$302 million of payroll. Providing passenger and cargo services to Alaska households and businesses outside of Anchorage is the next largest generator of jobs and payroll in the community, accounting for 3,409 jobs and \$157 million of payroll. This total excludes the jobs and payroll generated within Anchorage by these resident visitors during their stay in Anchorage after they leave the airport. The services of the airport to Anchorage resident households and businesses account for 3,190 jobs and \$148 million of payroll.

Taken together, the jobs attributable to Anchorage residents and to other Alaskans sum to about the same number as those generated by international cargo activities—6,599. The combined payroll of \$305 million is also about the same magnitude.

Nonresident visitors account for 2,702 of the jobs generated by the airport. This includes the jobs at the airport and those jobs offsite dependent on them. It excludes the jobs and payroll generated by these non-Alaska visitors during their stay in Anchorage after they leave the airport.

Finally, 2,549 jobs are attributable to the government and private tenants located at the airport that are not directly providing transportation services to the public—the U.S. Postal Service, Kulis Air Force Base, and a few others.

The Air-Transport Economic Base

By dividing the total economic significance of the airport into categories by type of customer, we can estimate two other measures of the importance of the airport to the community.

The first is a measure of the importance of the airport as a provider of transportation services to the community, other Alaskans, and the rest of the world. We derive this estimate by subtracting airport tenants who are not directly providing transportation services. The result is an estimate of 15,885 jobs generated by the transportation services provided by the airport. The associated payroll is \$718 million (Table 9).

Table 9. ANCHORAGE INTERNATIONAL AIRPORT: ECONOMIC SIGNIFICANCE IN 2007						
	JOBS			PAYROLL (million \$)		
	Onsite	Offsite	Total	Onsite	Offsite	Total
TOTAL AIRPORT	10,222	8,212	18,434	\$ 562	\$ 288	\$ 850
Minus: Tenants Not Providing Transport Services	(1,428)	(1,121)	(2,549)	(\$ 87)	(\$ 45)	(\$ 132)
EQUALS: AIR TRANSPORT ACTIVITY	8,794	7,091	15,885	\$ 475	\$ 243	\$ 718
Minus: Services to Anchorage Residents	(1,773)	(1,417)	(3,190)	(\$ 98)	(\$ 50)	(\$ 148)
EQUALS: BASIC AIR TRANSPORT	7,021	5,674	12,695	\$ 377	\$ 193	\$ 570
Source: ISER estimate						

The second is a measure of the activity at the airport that could be considered to be part of the economic base of the community—those activities that draw outside money into the community and contribute to economic growth. This outside money is associated with the passengers moving through the airport who are not residents of Anchorage as well as the cargo that is not associated with Anchorage residents and businesses. Three types of customers using the airport—international cargo, other Alaskans, and non-Alaska visitors—fall into this category.

The Anchorage airport is unusual for a community of its size in the importance of these basic sector activities in its overall makeup. Most airports in communities of 260,000 people primarily provide services to their own residents but have only a limited reach beyond a small service territory. Generally, only airports in much larger communities might derive a large share of their employment from serving non-residents. The importance of non-resident customers is the main reason employment at the Anchorage airport is so large relative to the size of the community.

Basic sector jobs at the airport total 7,021 with a payroll of \$377 million. The total economic impact in the community of these basic sector jobs is 12,695 jobs and \$570 million of payroll (Table 9).

Transportation service at the airport constitutes one of the largest basic sectors of the Anchorage economy. By way of comparison, there were 12,186 military personnel stationed in Anchorage in 2005 receiving a payroll of about \$537 million. The federal civilian workforce (some of whom work at the airport) was 9,565, and their combined payroll was about \$603 million.

International Cargo

Much of the growth at the airport in recent years has been associated with expansion of activities associated with international air cargo moving through Anchorage; today there are 3,456 jobs at the airport dependent on international air cargo. This includes not only 2,272 international air-carrier jobs with FEDEX, UPS, Northwest Airlines, Japan Airlines, and others but also jobs with businesses that provide services to the large carriers such as Swissport, Pegasus, and Delta Global. In addition, a share of airport operations jobs are dependent on these carriers. Finally, both the airport and the private businesses in this sector have been investing millions of dollars annually in new facilities and infrastructure to handle the ever-growing volume of traffic moving through the airport.

Table 10. ANCHORAGE INTERNATIONAL AIRPORT: JOBS AND PAYROLL ASSOCIATED WITH INTERNATIONAL CARGO OPERATIONS	
JOBS	6,585
Onsite	3,456
Offsite	3,129
PAYROLL (million \$)	\$ 302
Onsite	\$ 190
Offsite	\$ 112
Source: ISER estimate	

This onsite activity creates jobs offsite in two ways: The first occurs when onsite businesses purchase goods and services from other businesses in the Anchorage area. The second occurs when the employees of onsite businesses spend their wages in the community on goods and services. Together, these generate 3,129 offsite jobs and \$112 million of offsite payroll.

Taken together, the total economic impact of international cargo operations in Anchorage is the creation of 6,585 jobs and \$302 million of payroll annually (Table 10).

Flight Crews

A modest but growing component of the economic impact of the movement of international cargo through Anchorage is the presence of flight crews in the community.

An estimated 537 flight-crew members working for the carriers moving international freight now live in Anchorage, and their numbers are included in our estimate of the 3,456 international air-cargo jobs at the airport. Although accurate aggregate payroll information is not available for these employees, industry-wide information indicates that the pilots and crew members of the large jets used in international cargo commerce earn considerably more than \$100 thousand annually; many earn more than \$200 thousand. The consumer-purchasing power these employees bring into the Anchorage economy could thus easily be in the range of \$100 million.⁶

Virtually all flights between Asia and North America stop in Anchorage to change crews. Therefore, in addition to flight crews living in Anchorage, on an average night, 381 hotel rooms in Anchorage are occupied by these crew members. We estimate these crew

⁶ The exact number of international cargo pilots residing in Anchorage is difficult to determine. All crew members operate out of a base location, but they do not necessarily live at that base. Not all of the crew members based in Anchorage live in Alaska. It is also possible that some crew members based outside of Alaska live in Anchorage. There is no consistent policy among the international air carriers for reporting the number of crew members based in Alaska to the Alaska Department of Labor, and the carriers do not necessarily know exactly where they all reside.

member overnights generate spending of \$20 million in the community by the crew members themselves as well as on their behalf by their employers, generating at total of 372 jobs offsite in the community (included in the totals for international cargo).

Some of the crew members of the domestic, mostly passenger, carriers operating between Alaska and the rest of the United States live in Anchorage, but their numbers are not known. Flights coming to Alaska from the rest of the United States also require a crew change before returning; and we estimate, on an average night, 97 hotel rooms in Anchorage are occupied by these crew members.⁷ We estimate these crew-member overnights generate spending of \$7 million in the community and support 127 jobs.

The Alaska-based airline flight crews contribute to the economic significance of domestic cargo and passenger service. Many of the pilots working for the local Alaska airlines such as Northern Air Cargo, Grant Aviation, and Hageland Aviation Services either are based and live in Anchorage or are based elsewhere but live in Anchorage, and their numbers are included in our estimate of domestic carrier employment. Although the pay scale is lower for crew members flying domestically, they also contribute to the total economic importance of domestic services.

Facilities Expansion

Public and private investment in new and expanded facilities has accounted for an average of about 700 jobs at the airport over the last several years and \$47 million in payroll, fluctuating based upon the timing of large projects. This activity generated 534 offsite jobs as well.

⁷ The number is higher during the summer peak and lower in the winter.

5. TOTAL ECONOMIC VALUE OF THE AIRPORT

The contribution of the airport to the economy of the community and the state should not be measured simply by the jobs and payroll generated from the provision of air transport and other services. The airport is a necessary part of the infrastructure supporting the activities that provide benefits to all Alaska businesses and households. Without the airport, transportation options and access to global markets would be severely restricted. Business opportunities would be limited and households would not enjoy the benefits of air travel.

Although we cannot measure or quantify the economic value of the transportation services provided by the airport,⁸ we can demonstrate the importance of the airport to the Alaska visitor industry. Visitors from outside the state who arrive by air spend \$486 million during their stay in Anchorage,⁹ and visitors to Anchorage from other parts of Alaska who arrive by air spend an estimated \$44 million in the community. Only a small part of that spending occurs at the airport while most takes place offsite for lodging, meals, transportation, and other goods and services.

We estimate that spending in Anchorage (away from the airport) by visitors who arrive by air annually accounts for 8,112 jobs with a payroll of \$224 million (Table 11). Many, if not most, of the non-resident visitors continue on to other locations within the state, impacting those economies as well.

Table 11. ANCHORAGE INTERNATIONAL AIRPORT: OFFSITE VISITOR SPENDING IN 2007		
	JOBS	PAYROLL (million \$)
TOTAL	8,112	\$ 224
Alaskans	607	\$ 15
Non-Alaskans	7,679	\$ 209
Source: ISER estimate		

⁸ Such an analysis would require determining the collective “willingness to pay” for the services provided by the airport.

⁹ A large share of tourist visitors travel by air one way and cruise ship the other way. We have calculated the “round trip equivalent” visits and expenditures for this analysis.

6. AIRPORT ECONOMIC IMPACT RULES OF THUMB¹⁰

Growth of international cargo traffic is causing rapid growth at the airport, and this is contributing to a strengthening and diversification of the economic base in Anchorage. Existing carriers are increasing the number of flights through Anchorage; new carriers are using the airport; and the activities in support of cargo handling are expanding at the airport. In the past, international cargo flights were mostly “gas and go” operations, with planes on the ground in Anchorage for little more than an hour. Now, many carriers have established businesses in Anchorage and are finding it advantageous to do sorting while on the ground. Once they have begun this activity, other opportunities open for further expansion, such as maintenance and training activities in Anchorage.

Relating growth in cargo moving through the airport to employment growth is difficult because of the variety of activities related to cargo handling and the different operations characteristic of each carrier. It is clear, however, that the employment effect of cargo activity is related to time on the ground. Simple illustrative rules of thumb identifying the annual average employment associated with the average flight per week with various characteristics are shown in Table 12.

Table 12. ANCHORAGE INTERNATIONAL AIRPORT: “RULES OF THUMB” JOBS PER WEEKLY FLIGHT									
	INTERNATIONAL						INTERSTATE DOMESTIC		
	CARGO		PASSENGER				PASSENGER		
	No Sort	With Sort	Transit	Year Round		Sum- mer	Year Round		Sum- mer
					Anch Crew			Anch Crew	
GRAND TOTAL	8	17	6	243	258	81	75	85	25
AIR TRANSPORT	7.5	17	5.8	5.8	21	1.9	4.8	14.1	1.6
ONSITE	4.3	10	2.8	2.8	12.8	.9	2.5	8.5	.8
Services	4.3	10	2.8	2.8	2.8	.9	2.5	2.5	.8
Anchorage Crew					10			6	
OFFSITE	3.2	6.9	3.0	3.0	8.4	1.0	2.3	5.6	.8
Crew Overnites	.3	.3	1.1	1.1		.4	.7		.2
Economic Multiplier for Onsite Jobs	2.8	6.6	1.8	1.8	8.4	.6	1.7	5.6	.6
VISITOR SPENDING				237	237	79	70	70	24
Within Anchorage				120	120	40	35	35	12
Other Alaska				117	117	39	35	35	12

Jobs are annual average equivalent employment.
Source: ISER estimate

For each type of flight, we show the number of annual average jobs associated with air transport services that are generated onsite at the airport and offsite within the community. In addition, for passenger flights that bring non-residents into South Central

¹⁰ This section is taken from the 1998 ISER study.

Alaska, we show the number of jobs created by spending by these visitors within Anchorage and in the rest of South Central Alaska.

A new weekly cargo flight without sorting and handling would add on average about 8 jobs—5 at the airport and 3 offsite. (The exact number depends on the particular circumstances of the carrier. We have found that different carriers with similar numbers of scheduled flights through Anchorage can have very different numbers of local employees.) With cargo handling, one additional cargo flight per week would add on average 17 jobs—10 at the airport and 7 offsite.

The rules of thumb for destination passenger flights are very dependent upon whether the flight and cabin crews are based in or only lay over in Anchorage. A weekly international passenger flight with crew based in Anchorage would create 21 jobs, including the flight crew. Thirteen of those jobs would be at the airport, and 8 offsite.

The total impact on the community of a weekly international passenger flight is much greater than simply the jobs generated from the transportation services provided to the travelers. If we assume that a new flight brings new tourist visitors into the state (rather than taking Alaskans out), the average international passenger destination flight would represent the creation of 258 average annual jobs in Alaska in the tourist industry and throughout the rest of the economy. Of these, 237 jobs would be the result of visitor spending, and 21 would be due to the provision of air transport services.

Another set of rules of thumb is shown in Table 13. These show the number of jobs and the size of the payroll generated within the Anchorage economy from each \$1 million in additional sales (or expenditures) by various businesses at the airport. For example, an increase in air carrier receipts of \$1 million would increase employment in Anchorage by 11 jobs and would generate additional payroll of \$.41 million.

Table 13. ANCHORAGE INTERNATIONAL AIRPORT: 2007 "RULES OF THUMB" IMPACTS OF \$1 MILLION INCREASE IN ACTIVITY			
ACTIVITY	EXAMPLE	JOBS (annual average)	PAYROLL (million \$)
Air Carrier	Receipts from general operations increase \$1 million	11.0	\$.41
Flight Crew	Increase in crew spending in Anchorage by \$1 million	16.9	\$.45
Air Service Providers	Fixed Base operator sales increase \$1 million	14.3	\$.49
Freight Forwarder	Receipts increase \$1 million	14.8	\$.45
Air Taxi and Charter	Air charter sales increase \$1 million	11.0	\$.41
Government Tenants: Using Air Services	Kulis Air Base budget increases \$1 million	12.8	\$.51
Government Tenants: Not Using Air Services	Post Office budget increases \$1 million	15.2	\$.64
State/Federal Government Operations	Airport operating budget increases \$1 million	15.2	\$.64
Concessions	Restaurant receipts increase \$1 million	20.9	\$.50
Car Rental Agency	Sales increase \$1 million	14.8	\$.45
Miscellaneous Support	Travel Agency receipts increase \$1 million	22.3	\$.71
Private Basic Industry	Sales of generic private industry increase \$1 million	0.0 7.3	\$.22
Construction	Airport construction budget increases \$1 million	8.6	\$.38.
Alaska Resident Visitor	Visitor spending increases \$1 million	19.1	\$.49
Non-Alaska Visitor	Visitor spending increases \$1 million	19.1	\$.49
Source: The Economic Contribution of the Anchorage International Airport, ISER, 1995 and author estimate.			