

## Chapter 4. Economic Impacts of Illinois Air Cargo

### 4.1. Introduction

Beyond the economic contribution airports provide from businesses, employees, and visitors who use the airports, Illinois airports also support businesses in the state by transporting commodities and finished goods both from suppliers and to customers. These businesses, who may never otherwise utilize an airport for their business, rely on the efficient transfer of goods to import raw materials for development and then shipping final goods to their customers.

This chapter evaluates how air cargo services provided by Illinois’s airports support industries across the state by effectively providing Illinois companies with connectivity to both long-distance domestic and international markets. This connectivity is important because it enables companies in Illinois to expand customer markets and acquire commodities used for production from anywhere across the globe.

Expanding access to customer markets through outgoing air cargo generates increased business sales, which in turn brings dollars from other states and/or nations into Illinois. Additionally, having the ability to acquire goods from around the globe enables Illinois companies to shop for the best prices for commodities in the world marketplace. Without support provided by these air cargo services, the markets available to Illinois companies would be curtailed due to the increased time required for transportation and higher prices paid for goods.

This analysis assessed the reliance of off-airport industries in Illinois on cargo services that are transported through Illinois airports and calculated the economic contributions of this air cargo to businesses across the state. It is important to note that jobs and economic activity associated with cargo airlines located on airports are included in the airport economic impact analysis and not in this section. It is also important to note that cargo that arrives and departs Illinois airports but does not otherwise interact with the state economy is not considered in this analysis. For example, goods that arrive at Illinois airports, such as Chicago O’Hare International Airport (ORD), Chicago-Rockford Airport (RFD) or others and are flown to other states are excluded because they do not contribute to the economy other than jobs of cargo handlers on airport. Those cargo handlers are counted in the airport tenant evaluation of the Economic Impact Analysis. Therefore, the air cargo volumes shown in this assessment may differ from other estimates of cargo volumes that count all tonnage flowing through Illinois airports.

As shown in **Table 4.1**, In 2019, a total of 506,000 tons of air cargo, valued at roughly \$56 billion, flowed through Illinois airports. The results of the analysis show that, overall, air cargo services at Illinois airports support over 142,000 jobs in the state and more than \$35 billion in business revenues (economic impact) annually.

**Table 4.1. 2019 Economic Contributions from Industries in Illinois that Receive or Ship Air Cargo Through Illinois Airports**

Cargo (in tons)	Value of Cargo	Jobs	Total Economic Impact
506,000	\$56 billion	142,000	\$35 billion

Source: EBP

The following sections present the international and domestic flows of commodities that are transported through Illinois airports and support businesses across the state:

- ◆ Air Cargo Volume and Value
- ◆ Off-Airport Economic Impact of Illinois Air Cargo

## 4.2. Air Cargo Volume and Value

The following section details air cargo volume and value at both the International and Domestic levels.

### 4.2.1. International Air Cargo

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Approximately 349,000 tons of international air cargo valued at \$45 billion flows to and from Illinois businesses through airports in the state. **Table 4.2** displays the major commodities that are internationally imported and exported in order of 2019 value. Electronics and Other Electrical Equipment (e.g., electrical cooking appliances, televisions, computers, and electrical components) are the most valuable commodities exported from and imported to Illinois. This commodity group alone accounts for over 70 percent of the total value of imported goods included in this analysis. The next most common commodity group for both imports and exports is Pharmaceutical Products, of which almost \$5 billion worth are imported to Illinois annually. This same group accounts for 20 percent of the total value of exported air cargo goods.

**Table 4.2. Volumes of Air Cargo used by Illinois Industries: Top Five International Air Commodities by Value of Exports and Imports**

Commodity Exported Internationally	Tons	Value in millions (2019\$)	Share of Value	Commodities Imported Internationally	Tons	Value in millions (2019\$)	Share of Value
<b>Electronics and Other Electrical Equipment</b>	17,232	\$3,009	30%	<b>Electronics and Other Electrical Equipment</b>	112,264	\$25,411	72%
<b>Pharmaceutical Products</b>	2,515	\$1,982	20%	<b>Pharmaceutical Products</b>	2,192	\$4,875	14%
<b>Precision Instruments and Apparatus</b>	9,041	\$1,429	14%	<b>Machinery</b>	35,869	\$1,358	4%
<b>Machinery</b>	27,407	\$1,378	14%	<b>Precision Instruments and Apparatus</b>	7,936	\$1,199	3%
<b>Transportation Equipment</b>	1,452	\$551	6%	<b>Basic Chemicals</b>	3,570	\$354	1%
<b>Other</b>	58,394	\$1,530	16%	<b>Other</b>	71,578	\$2,007	6%
<b>All Commodities</b>	116,041	\$9,879	100%	<b>All Commodities</b>	233,409	\$35,204	100%

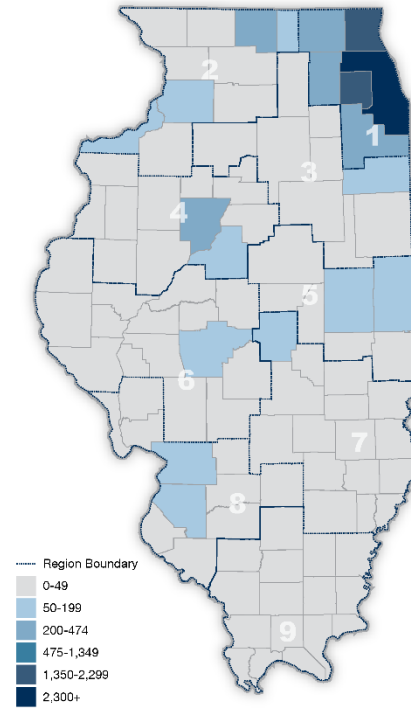
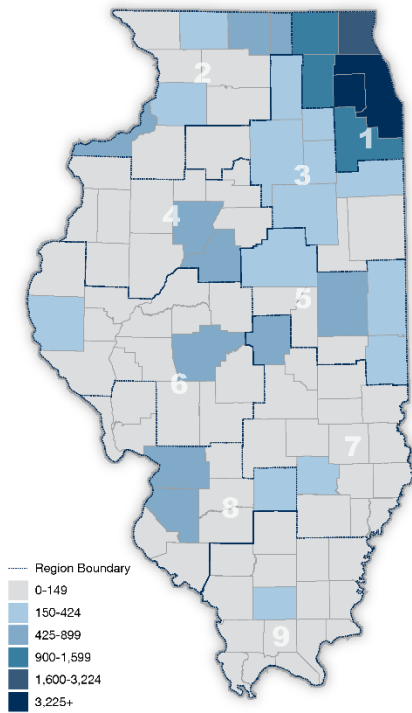
Source: EBP using vFreight™

**Figure 4.1** and **Figure 4.2** illustrate the total value of international air cargo imports and exports, respectively, estimated to be produced and consumed within Illinois counties. Industries based in Cook County, including the City of Chicago and ORD, receive and send the greatest value of air cargo among all counties in the state. Industries based in other counties in the Chicago metropolitan area, such as DuPage and Lake counties, also consume and produce much more air cargo than many other counties in Illinois.

Additional counties with economies that depend on air cargo facilitated by Illinois airports include Champaign County (home of the University of Illinois Willard Airport [CMI]), and St. Clair County, which contains the MidAmerica St. Louis Airport (BLV). This is one of two passenger airports serving the St. Louis, Missouri area, and is collocated with Scott Air Force Base, which employs over 13,000 people.

**Figure 4.1. Total Value of International Air Cargo Imports (in Millions of Dollars)**

**Figure 4.2. Total Value of International Air Cargo Exports (in Millions of Dollars)**



Sources: EBP using vFreight™

#### 4.2.2. Domestic Air Cargo

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**Table 4.3** documents the major commodities moving domestically in or out of Illinois in order of 2019 value. In total, Illinois exports more than 100,000 tons of goods to other states in the U.S., with a total value of almost \$7 billion each year. The major outbound air cargo commodities of Illinois include Pharmaceutical Products, Wood Products, and Electronics. These three commodity groups account for more than two-thirds of the total value of all domestic exports from Illinois.

Illinois receives almost half as much volume from other states as it exports (reflected as outbound) domestically, with less than 50,000 tons of air-bound cargo being received from other states each year. Almost half of the total value of domestic imports or inbound cargo is from the 11,000 tons of Electronics and Precision instruments that are received each year.

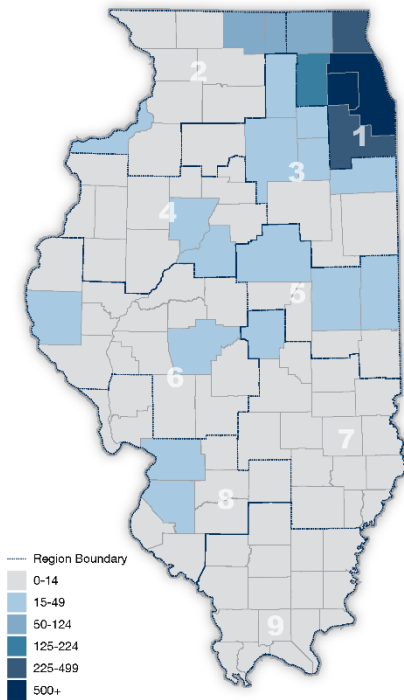
**Table 4.3. Volumes of Air Cargo used by Illinois Industries: Top Five Domestic Air Commodities by Value of Exports and Imports**

Commodities Outbound Domestically	Tons	Value in millions of 2019\$	Percentage of Value	Commodities Inbound Domestically	Tons	Value in millions of 2019\$	Percentage of Value
Pharmaceutical Products	1,966	\$1,711	25%	Electronics and Other Electrical Equipment	6,641	\$1,187	28%
Wood Products	12,841	\$1,695	24%	Precision Instruments and Apparatus	4,405	\$891	21%
Electronics and Other Electrical Equipment	1,723	\$1,165	17%	Pharmaceutical Products	2,553	\$591	14%
Transportation Equipment	4,686	\$641	9%	Transportation Equipment	1,760	\$349	8%
Machinery	14,502	\$551	8%	Textiles and Leather	6,684	\$330	8%
Other	72,009	\$1,177	17%	Other	27,389	\$866	21%
<b>All Commodities</b>	<b>107,727</b>	<b>\$6,940</b>	<b>100%</b>	<b>All Commodities</b>	<b>49,432</b>	<b>\$4,214</b>	<b>100%</b>

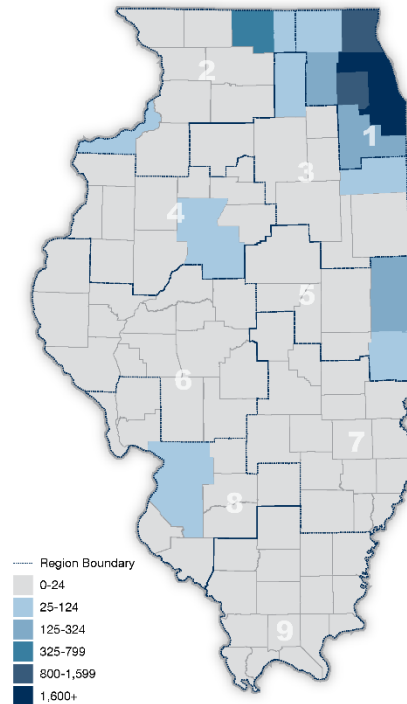
Sources: EBP using vFreight™

**Figure 4.3** and **Figure 4.4** display the estimated value of domestic air cargo shipments traveling in or out of Illinois airports that are produced and consumed by industries in Illinois. As with the international cargo maps, these figures reveal the relative dominance of the two airports in Cook County including ORD and MDW, as well as the rest of the Chicago metropolitan area, which consume and produce the vast majority of Illinois domestic air cargo as measured by value. Outside the Chicago region, Peoria County in the central part of the state and the location of Peoria International Airport (PIA) stands out as one of the notable hubs for domestic exports, in addition to St. Clair and Champaign counties.

**Figure 4.3. Total Value of Domestic Air Cargo Imports (in Millions of Dollars)**



**Figure 4.4. Total Value of Domestic Air Cargo Exports (in Millions of Dollars)**

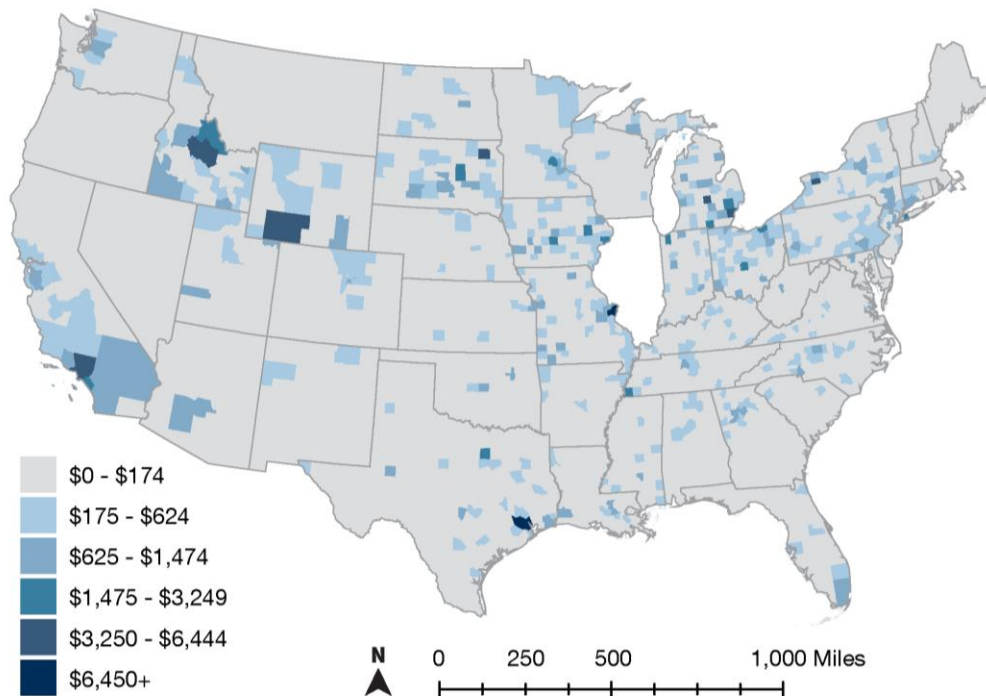


Sources: EBP using vFreight™

**Figure 4.5** illustrates the domestic origins of air cargo received in Illinois. This reveals that the state has several strong ties to other Midwestern states. Most notably, over \$5 billion of motorized vehicles or their parts are received from Wayne and Oakland counties in Michigan, signaling the strong interaction among automotive industry assembly planning and suppliers located in Illinois and other states in the Midwest.

Additionally, Illinois also receives goods from states all over the country, including major hubs such as Southern California’s Orange and Los Angeles counties, which each ship around a billion dollars in value of electronics to Illinois by air annually. Annually, another billion dollars of electronics are received from Dallas County, Texas.

**Figure 4.5. Origins of Domestic Air Cargo Bound for Illinois by Value (in Millions of Dollars)**



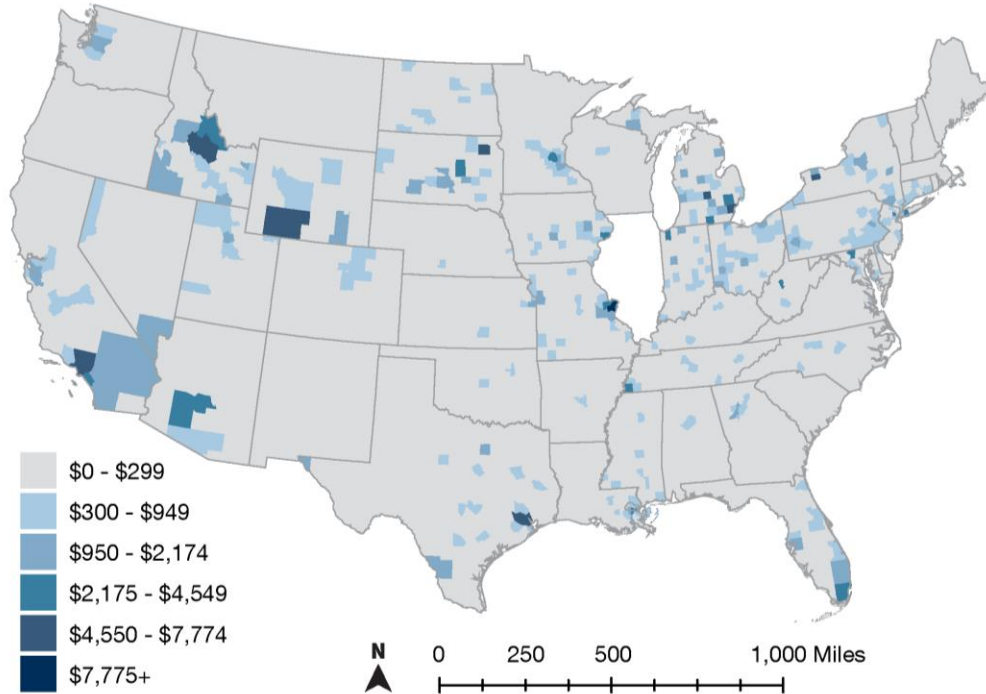
Source: EBP using vFreight™

The significance of Illinois’s midwestern regional partnerships are once again shown in **Figure 4.6**, which illustrates the domestic destinations of air cargo originating in Illinois. Around \$2.5 billion worth of motor vehicles or parts are shipped to Wayne County, Michigan, each year (home to Detroit). These likely include products from the Ford Motor Company Chicago Assembly Plant or the Fiat Chrysler USA Belvidere Plant, which produces both complete Jeep Cherokees and sheet metal parts for other vehicles.

Illinois also sends \$2.1 billion of ‘mixed freight’ to Lake County, Indiana (home to Gary). Mixed freight commonly includes food and other items to stock grocery and convenience stores, as well as items like office supplies. The high value of these kinds of shipments likely reflects the importance of the food manufacturing industry in Illinois to the greater Midwestern regional economy.



**Figure 4.6. Destinations of Outbound Domestic Air Cargo from Illinois by Value (in Millions of Dollars)**



Source: EBP using vFreight™

### 4.3. Off-Airport Economic Impact of Illinois Air Cargo

Air cargo flowing through Illinois airports contributes an estimated \$19.9 billion to off-airport businesses as a direct impact by providing production inputs and contributing to the long-distance sale of goods (see **Table 4.4**). The \$19.8 billion of direct business revenues support over 57,000 jobs that generate more than \$5.2 billion of labor income (earnings plus benefits) and contribute more than \$9 billion to the Illinois gross state product (value added).

With multiplier effects added to these direct impacts, air cargo supports more than 142,000 off-airport jobs across Illinois, representing \$35.9 billion in business revenues. These total economic impacts are inclusive of both domestic and international air cargo being moved through airports statewide. They include supplier sales and income re-spending in Illinois that occur because of commodity production and income earned by workers due to the sales enabled by Illinois airports. This analysis assesses the reliance of off-airport industries in Illinois on cargo that is transported through Illinois airports. It does not include the impacts of on-airport air cargo jobs, which are covered by other components of the Economic Impact Study.

**Table 4.4. Statewide Air Cargo Dependency**

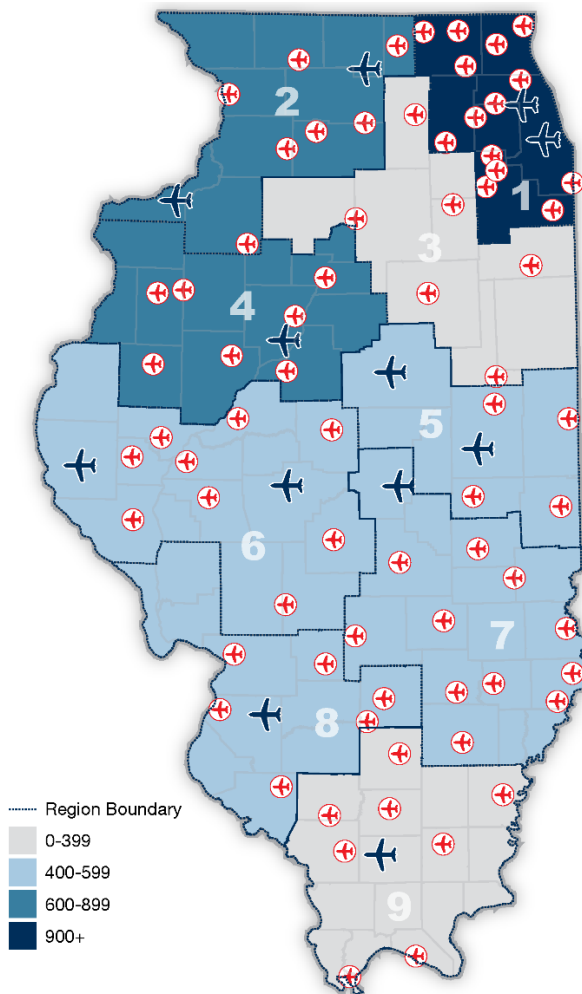
Impact	Jobs	Labor Income (Millions of \$)	Value Added (Millions of \$)	Business Revenues (Millions of \$)
Direct	57,630	\$5,251	\$9,380	\$19,863
Supplier Sales	37,640	\$2,789	\$4,564	\$8,141
Income Re-spending	47,312	\$2,550	\$4,811	\$7,935
<b>Total</b>	<b>142,582</b>	<b>\$10,590</b>	<b>\$18,755</b>	<b>\$35,940</b>

*Note: Totals may not equal the sum of rows due to rounding*

*Sources: Data from FAF, WISERTrade, and IMPLAN assembled and calculated by EBP*

**Figure 4.7** and **Table 4.5** show the breakdown of cargo impacts by IDOT district. These impacts are based on the locations of industries that rely on air cargo and not the location of airports. The highest impacted district is District 1, which contains the Chicago Metropolitan area, which has over \$26 billion in total economic impacts attributed to air cargo reliance.

**Figure 4.7. Total Value Added by IDOT District (in Millions of Dollars)**



*Sources: Data from FAF, WISERTrade, and IMPLAN assembled and calculated by EBP*

**Table 4.5. Total Air Cargo Impacts by IDOT Region**

District	Impact	Jobs	Labor Income (Millions of \$)	Value Added (Millions of \$)	Business Revenues (Millions of \$)
<b>District 1</b>	Direct	40,052	\$4,046	\$7,395	\$14,572
	Supplier Sales	25,561	\$2,176	\$3,533	\$5,924
	Income Re-spending	33,142	\$1,986	\$3,708	\$5,890
	<b>Total</b>	<b>98,755</b>	<b>\$8,207</b>	<b>\$14,636</b>	<b>\$26,386</b>
<b>District 2</b>	Direct	4,044	\$294	\$472	\$1,355
	Supplier Sales	1,961	\$112	\$186	\$377
	Income Re-spending	2,512	\$103	\$200	\$363
	<b>Total</b>	<b>8,517</b>	<b>\$510</b>	<b>\$858</b>	<b>\$2,094</b>
<b>District 3</b>	Direct	1,472	\$96	\$161	\$438
	Supplier Sales	1,277	\$60	\$104	\$233
	Income Re-spending	1,360	\$50	\$100	\$193
	<b>Total</b>	<b>4,109</b>	<b>\$206</b>	<b>\$365</b>	<b>\$865</b>
<b>District 4</b>	Direct	2,425	\$227	\$411	\$901
	Supplier Sales	1,753	\$103	\$168	\$335
	Income Re-spending	2,334	\$100	\$193	\$348
	<b>Total</b>	<b>6,512</b>	<b>\$430</b>	<b>\$771</b>	<b>\$1,585</b>
<b>District 5</b>	Direct	1,951	\$122	\$190	\$538
	Supplier Sales	1,430	\$76	\$130	\$271
	Income Re-spending	1,631	\$70	\$139	\$249
	<b>Total</b>	<b>5,011</b>	<b>\$268</b>	<b>\$459</b>	<b>\$1,058</b>
<b>District 6</b>	Direct	1,896	\$116	\$183	\$438
	Supplier Sales	1,374	\$70	\$118	\$251
	Income Re-spending	1,688	\$70	\$134	\$249
	<b>Total</b>	<b>4,959</b>	<b>\$255</b>	<b>\$436</b>	<b>\$938</b>
<b>District 7</b>	Direct	2,019	\$127	\$220	\$694
	Supplier Sales	1,486	\$64	\$111	\$264
	Income Re-spending	1,531	\$56	\$111	\$213
	<b>Total</b>	<b>5,036</b>	<b>\$246</b>	<b>\$442</b>	<b>\$1,171</b>
<b>District 8</b>	Direct	2,655	\$161	\$251	\$679
	Supplier Sales	1,609	\$81	\$137	\$299
	Income Re-spending	1,805	\$68	\$136	\$253
	<b>Total</b>	<b>6,069</b>	<b>\$311</b>	<b>\$524</b>	<b>\$1,231</b>
<b>District 9</b>	Direct	1,116	\$63	\$97	\$248
	Supplier Sales	1,189	\$47	\$78	\$187
	Income Re-spending	1,309	\$46	\$89	\$178
	<b>Total</b>	<b>3,614</b>	<b>\$156</b>	<b>\$264</b>	<b>\$613</b>

*Note: Totals may not equal the sum of rows due to rounding*

*Sources: Data from FAF, WISERTrade, and IMPLAN assembled and calculated by EBP*

**Table 4.6** details the economic impacts of air cargo on industries presented as 14 major groups. Direct impacts are largest in industries such as manufacturing and construction, which utilize air cargo services to ship and receive goods. The impacts of income re-spending are most significant for retail and service sectors, whose customers are employed by industries utilizing air cargo services.

**Table 4.6. Total Air Cargo Impacts by 14 Major Industry Groups**

Industry	Impacts	Jobs	Labor Income (Millions of \$)	Value Added (Millions of \$)	Business Revenues (Millions of \$)
<b>Agriculture &amp; Extraction</b>	Direct	638	\$14	\$32	\$143
	Supplier Sales	434	\$15	\$31	\$86
	Income Re-spending	104	\$ 2	\$5	\$17
	<b>Total</b>	<b>1,175</b>	<b>\$32</b>	<b>\$68</b>	<b>\$245</b>
<b>Utilities</b>	Direct	34	\$ 4	\$11	\$24
	Supplier Sales	225	\$37	\$117	\$266
	Income Re-spending	160	\$25	\$77	\$175
	<b>Total</b>	<b>418</b>	<b>\$66</b>	<b>\$205</b>	<b>\$465</b>
<b>Construction</b>	Direct	4,343	\$287	\$404	\$734
	Supplier Sales	284	\$19	\$27	\$61
	Income Re-spending	303	\$19	\$30	\$66
	<b>Total</b>	<b>4,930</b>	<b>\$325</b>	<b>\$462</b>	<b>\$861</b>
<b>Manufacturing</b>	Direct	21,902	\$2,452	\$4,639	\$11,913
	Supplier Sales	2,153	\$180	\$305	\$937
	Income Re-spending	514	\$40	\$86	\$292
	<b>Total</b>	<b>24,569</b>	<b>\$2,673</b>	<b>5,029</b>	<b>\$13,142</b>
<b>Wholesale Trade</b>	Direct	7,838	\$966	\$2,092	\$3,392
	Supplier Sales	3,846	\$408	\$920	\$1,540
	Income Re-spending	934	\$97	\$227	\$362
	<b>Total</b>	<b>12,618</b>	<b>\$1,471</b>	<b>\$3,239</b>	<b>\$5,295</b>
<b>Retail Trade</b>	Direct	1,969	\$59	\$122	\$214
	Supplier Sales	1,007	\$38	\$74	\$113
	Income Re-spending	6,834	\$235	\$392	\$635
	<b>Total</b>	<b>9,810</b>	<b>\$332</b>	<b>\$588</b>	<b>\$961</b>
<b>Transportation</b>	Direct	449	\$26	\$34	\$68
	Supplier Sales	2,405	\$159	\$206	\$412
	Income Re-spending	1,535	\$80	\$115	\$213
	<b>Total</b>	<b>4,389</b>	<b>\$265</b>	<b>\$355</b>	<b>\$694</b>
<b>Postal &amp; Warehousing</b>	Direct	540	\$28	\$33	\$64
	Supplier Sales	2,656	\$159	\$183	\$300
	Income Re-spending	649	\$39	\$45	\$73
	<b>Total</b>	<b>3,844</b>	<b>\$226</b>	<b>\$261</b>	<b>\$437</b>
<b>Media and Information</b>	Direct	978	\$90	\$303	\$605
	Supplier Sales	1,070	\$111	\$292	\$600

Industry	Impacts	Jobs	Labor Income (Millions of \$)	Value Added (Millions of \$)	Business Revenues (Millions of \$)
	Income Re-spending	752	\$73	\$204	\$407
	Total	2,799	\$274	\$799	\$1,612
<b>Financial Activities</b>	Direct	954	\$66	\$148	\$238
	Supplier Sales	4,385	\$277	\$683	\$1,266
	Income Re-spending	5,698	\$369	\$1,593	\$2,488
	Total	11,037	\$713	\$2,425	\$3,992
<b>Professional &amp; Business</b>	Direct	5,481	\$436	\$518	\$777
	Supplier Sales	15,531	\$1,239	\$1,520	\$2,246
	Income Re-spending	5,548	\$410	\$527	\$789
	Total	26,560	\$2,084	\$2,565	\$3,811
<b>Education &amp; Health</b>	Direct	8,670	\$620	\$751	\$1,244
	Supplier Sales	192	\$10	\$13	\$21
	Income Re-spending	11,931	\$722	\$859	\$1,368
	Total	20,793	\$1,353	\$1,623	\$2,633
<b>Other Service</b>	Direct	3,808	\$199	\$284	\$435
	Supplier Sales	3,428	\$133	\$184	\$279
	Income Re-spending	12,300	\$431	\$635	\$1,026
	Total	19,536	\$763	\$1,103	\$1,741
<b>Government</b>	Direct	28	\$3	\$8	\$12
	Supplier Sales	27	\$4	\$9	\$13
	Income Re-spending	51	\$7	\$16	\$25
	Total	106	\$14	\$33	\$50

*Note: Totals may not equal the sum of rows due to rounding.*

*Sources: Data from FAF, WISERTrade, and IMPLAN assembled and calculated by EBP.*