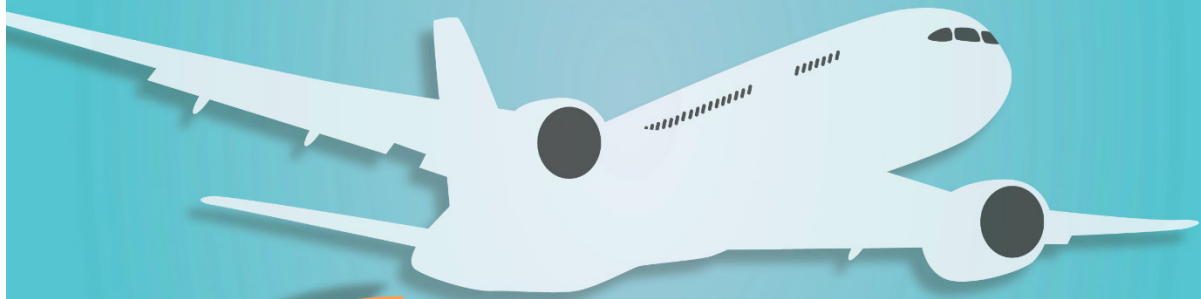


# OKLAHOMA

AVIATION AND AEROSPACE ECONOMIC IMPACT STUDY

## Technical Report



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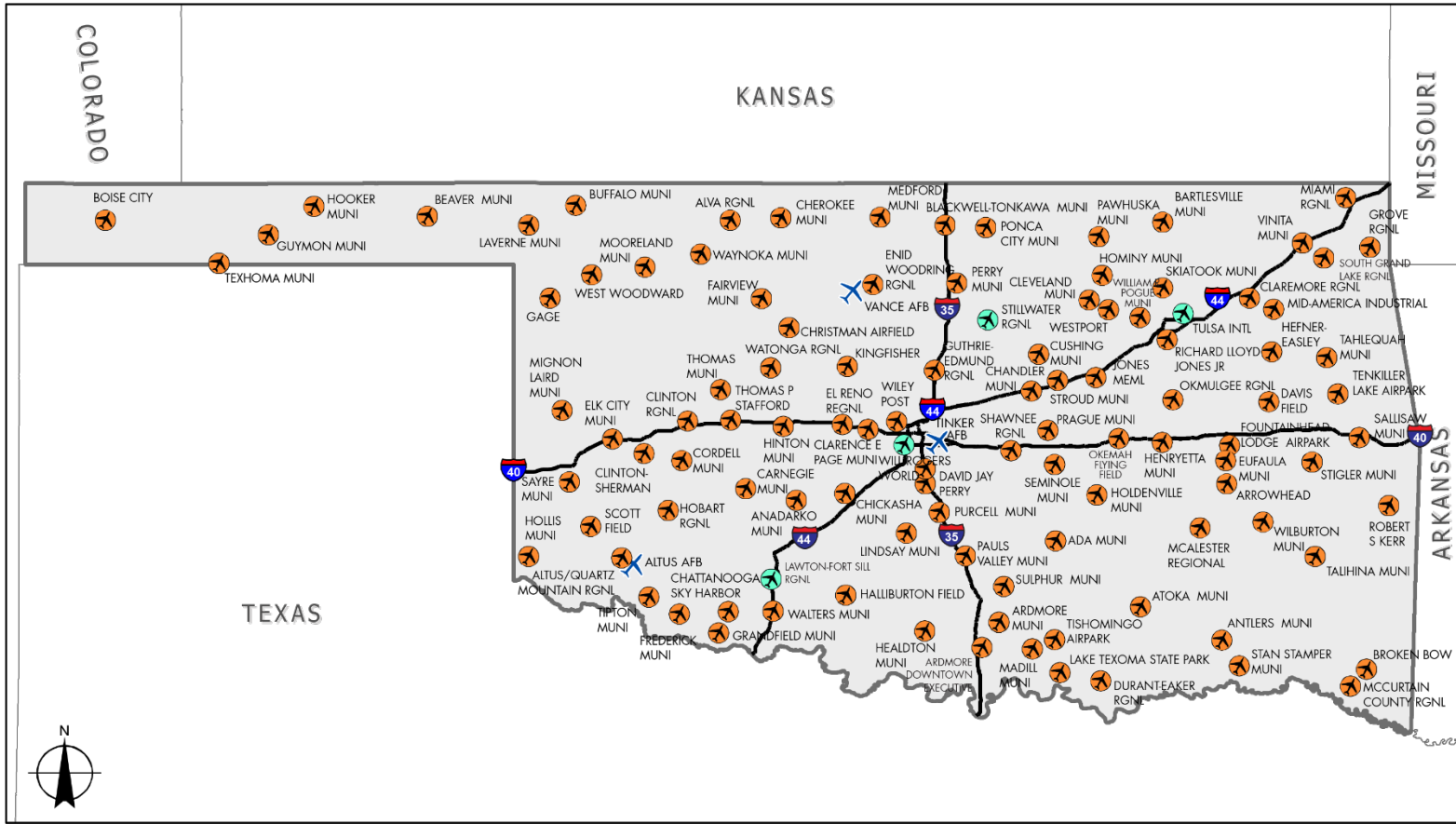
## 1.0 INTRODUCTION

Starting in the fall of 2015, the Oklahoma Aeronautics Commission (OAC) undertook a comprehensive research project to estimate the economic impact of airports, aviation, and aerospace in Oklahoma. This report presents the results of that effort which was completed in August 2017. Primary objectives for the project were as follows:

- Estimate annual economic impacts that Oklahoma realizes from the day-to-day operation of 109 public commercial and general aviation airports.
- Estimate annual state and local tax revenues contributed by airports and airport supported activities.
- Approximate the number of jobs in Oklahoma that gain efficiency by using aviation.
- Highlight benefits of aerial applicators, aviation-related educational providers, and how airports support various aspects of healthcare in Oklahoma.
- Document examples of airport users that support health, welfare, safety, environmental, business, and other activities.
- Estimate the economic impact associated with military aviation, including Oklahoma's three major Air Force Bases and the Oklahoma Army Air Guard.
- Identify aerospace and aviation companies in Oklahoma that are not located on an airport and that contribute to the state's economy; this includes businesses engaged in unmanned aircraft system/unmanned aerial vehicle (UAS/UAV) activities.

The study included 109 public commercial and general aviation airports in the state, as well as Oklahoma's three major Air Force Bases. These airports and Air Force Bases are shown on **Figure 1 – Study Airports**.

FIGURE 1 – STUDY AIRPORTS



- |                  |                       |
|------------------|-----------------------|
| <b>Service</b>   | <b>Major Highways</b> |
| Commercial       | Interstate            |
| General Aviation | Oklahoma              |
| Air Force Base   |                       |

Data Sources: Oklahoma Department of Transportation, Data.okc.gov, and Bureau of Transportation Statistics - National Transportation Atlas Database

A Project Advisory Committee was formed to help provide oversight for the study. This Committee represented a wide variety of aviation and aerospace interests in Oklahoma. Staff from OAC were also actively involved in the development and review of research results. Members of the Project Advisory Committee and OAC staff who participated in the project are shown below.

#### **Oklahoma Statewide Economic Impact Study Project Advisory Committee**

- Dennis Altendorf – Tulsa Chamber of Commerce
- Patricia Brace – FAA AR/OK Airports District Office
- Tom Chandler – Aircraft Owners and Pilots Association
- Tim Dickinson – Oklahoma City Chamber of Commerce
- Steve Hadley – National Business Aviation Association
- Alexis Higgins – Tulsa Airports Improvement Trust
- Vince Howie – Oklahoma Department of Commerce
- Kirk Humphreys – The Humphreys Company - Carlton Landing Field
- Tim Jamison – Oklahoma Business Aviation Association
- Scott Keith – Oklahoma City Airport Trust
- Jonathan Kelly – Oklahoma Agriculture Aviation Association
- Steve Neuman – Kingfisher Municipal Airport
- Dan Ohnesorge – Enid Woodring Regional Airport
- Jeff Sandusky – Oklahoma Pilots Association
- Kristy Slater – Oklahoma Airport Operators Association
- Scott Slater – Will Rogers World Airport Tower/Tracon

#### **Oklahoma Aeronautics Commission Staff**

- Grayson Ardies – Manager, Airport Development Division
- Catherine Taber – Aviation Program Manager
- Jennifer Scanlan – Aviation Program Manager

Jviation served as the lead consultant for Oklahoma’s Statewide Aviation & Aerospace Economic Impact Study; they were assisted by the Oklahoma Department of Commerce and Marr/Arnold Planning. Students from the University of Oklahoma’s Aviation Department provided additional project research. Participating students included Susan Amstutz, Nicholas Pugh, and Ari Cardoso.

Highlights from Oklahoma’s Statewide Economic Impact Study include:

- The 109 public commercial and general aviation airports support total jobs estimated at 74,002 with an associated annual payroll of \$3.6 billion.
- The airports support annual economic activity estimated at \$10.6 billion.
- Activities supported at and by the 109 airports contribute almost \$500 million in annual state tax revenues.
- Military aviation supports 72,648 total jobs with an associated annual payroll of \$4.7 billion.
- Military aviation supports annual economic activity estimated at \$19.3 billion.
- Off-airport aviation and aerospace companies in Oklahoma support an estimated 58,958 jobs; these jobs have an estimated annual payroll of \$3.4 billion.

- Off-airport aviation and aerospace companies support annual economic activity estimated at \$13.8 billion.
- There are an estimated 34,787 additional jobs in Oklahoma that have improved efficiency from using aviation.

The remainder of this report contains the results of the Statewide Aviation Economic Impact Study. The report is generally organized as follows:

- Sources and Measurements of Economic Impact
- Direct Economic Impacts for Study Airports
- Indirect/Induced Economic Impacts for Study Airports
- Total Annual Economic Impacts for Study Airports
- Statewide Airport-Supported Tax Revenues
- Economic Impact Associated with Aerial Applicators and Aviation Education/Training
- Non-Aviation Jobs Benefiting from Aviation
- Economic Impacts of Military Aviation
- Economic Impacts of Off-Airport Aviation/Aerospace Companies
- Summary and Conclusions

## 2.0 SOURCES & MEASUREMENTS OF ECONOMIC IMPACT FOR THE 109 PUBLIC AIRPORTS IN OKLAHOMA

### 2.1 Sources for Airport Specific Economic Impacts

For this statewide study of Oklahoma's commercial and general aviation airports, economic impacts were estimated for various economic activity centers. For all 109 public airports, both commercial and general aviation, annual economic impacts were estimated for each of the following: airport management, aviation related airport tenants, investment related to capital improvements, and visitors arriving on general aviation aircraft. For the four commercial airports in Oklahoma, economic impacts associated with visitors arriving on commercial airlines were also estimated.

The five centers of economic activity estimated in this study are described below:

- **Airport Management:** Most public commercial and general airports support jobs that are associated with daily airport administrative, maintenance, and operational functions. On-airport jobs in the airport management category may be full-time or part-time. Airports also report that they sometimes support jobs that are seasonal in nature. Since most airports in Oklahoma are owned/operated by a city or a county, some jobs related to the airport management function are located off-airport. Full-time or part-time employment related to human resources, accounting, maintenance, grants administration, and financial/legal services are sometimes located off-airport. An airport's need for these services is often not full-time; and the airport associated job is shared with other city/county departments.

For this analysis, all part-time, seasonal, and off-airport jobs that are less than full-time were converted to full-time equivalent employment (FTE). The conversion to full-time positions was accomplished considering the number of reported hours that each less than full-time employee works directly in support of an airport.



- **Airport Tenants/Businesses:** Some of the 109 public airports in Oklahoma also have businesses on-site that provide aviation related services or support to airport customers. Examples of airport tenants include fixed base operators (FBOs), aerial applicators, aircraft maintenance providers, commercial airlines, Part 135 operators, flight schools, corporate flight departments, concessionaires, military units, avionics repair shops, and/or other similar aviation related businesses. For this analysis, only aviation related businesses located “inside the fence” at the airport were included in the tenant category. Many Oklahoma airports have aviation or aerospace businesses that are located nearby but not actually on the airport. For this analysis, the economic impacts from these businesses were included in the off-airport aviation and aerospace employer category discussed later in this report.

Some airports also have tenants on their property that are not aviation related. For instance, if an airport has an on-site tenant that manufactures plastic bottles, even though the business is located at the airport, the tenant is not aviation related. Economic impacts for any non-aviation businesses located on-airport are not considered in this analysis.

- **Capital Investment:** Airports in Oklahoma often undertake capital improvement projects for maintenance, expansion, and/or replacement of infrastructure items. Projects are often funded with grants from the OAC and the Federal Aviation Administration (FAA). Larger airports sometimes generate enough revenue to fund development projects without federal or state assistance. Third party investment, especially for hangar development or private aviation businesses, is also made. For this study, average annual capital investment for a five-year historic period was considered to estimate economic impacts resulting from capital investment.

Unlike the other centers of economic impact discussed in this section, economic impacts in this category (jobs, payroll associated with the jobs, and annual economic activity) occur only when spending associated with the project is taking place. Once project related spending is over, economic impacts associated with capital investment are suspended.

Since economic impact studies reflect economic conditions that are a “snapshot in time”, economic impacts for this economic activity center have the propensity to change, perhaps even dramatically, between reporting periods. Economic impacts in the CIP investment category are not on-going; and they change year-to-year, unless CIP investment is constant and is at the same level each year. This is seldom the case since the need for capital improvement projects changes annually.

- **Visitors Arriving on General Aviation Aircraft:** Throughout the year, all Oklahoma airports accommodate varying numbers of visitors who fly to communities that the 109 airports serve. Both commercial and general aviation airports serve visitors who arrive in general aviation planes. General aviation visitors may arrive one person at a time, or they may arrive in large groups on non-scheduled charter aircraft that are counted in the general aviation category. Some visitors to Oklahoma rely on general aviation air transportation because it enables them to shorten the duration of their trip, or it enables the visitor to fly directly to a destination not served by scheduled commercial airline flights.

Frequently, general aviation visitors arrive and depart on the same day, limiting the amount of spending they have in the community they visit. Other visitors who arrive via general aviation aircraft stay for one or more days; these visitors have a greater economic impact on Oklahoma’s economy. Overnight visitors often have spending for hotels, meals, retail, entertainment, and local transportation. Typically the longer the visitor stays, the greater the amount they spend. Visitor spending helps to support jobs and the payroll associated with the jobs in service, hospitality, recreational, entertainment, retail, and ground transportation categories.

For this study, Oklahoma airports provided information that was used as the starting point for estimating the number of visitors that arrive via general aviation aircraft. Surveys completed with the assistance of FBOs and airports across the state helped to provide Oklahoma specific information on the length of time general aviation visitors stay in the state and the average amount they spend per trip.

Many Oklahoma airports also host transient aerial applicators. Data collected for this study shows that transient aerial applicators often operate at Oklahoma airports for weeks at a time. When using an Oklahoma airport as their base of operation, visiting aerial applicators typically report having several employees supporting their spraying activities. While in an Oklahoma community, transient aerial applicators are similar to general aviation visitors, in that they often have expenditures for lodging and food while in the community. As part of this effort, estimates of spending in the general aviation visitor category were increased, at applicable airports, to reflect spending by transient aerial applicators.

- **Visitors Arriving on Scheduled Commercial Airlines:** The four commercial airports have economic impacts associated with visitors who arrive on commercial airlines. Data from the U.S. Department of Transportation (USDOT) supported estimates of commercial visitors for each airport. USDOT data provides estimates of residents versus visitors as a percent of each airport's total annual passenger enplanements. Similar to general aviation visitors, commercial airline visitors have spending that helps to support jobs and the payroll associated with these jobs. Surveys of visitors using Oklahoma's commercial airports, conducted in conjunction with this study and with the help of Oklahoma's major commercial airports, were used to determine average length of stay and visitor spending patterns. Using estimates of annual visitors, visitor spending, and stay patterns, this study estimated annual economic impacts for this activity center.

These five centers of activity are those that were considered in this statewide economic impact study to estimate annual economic impacts for the 109 public airports. To the extent that there are not issues with confidentiality, economic impacts for each of the activity centers discussed above are presented individually for each airport.

## 2.2 Measurements for Airport Specific Economic Impacts

As part of this study, all annual economic impacts are estimated for four measures: jobs, payroll, spending, and annual economic activity. These measures are discussed below:

- **Jobs** are the most straightforward and the most easily understood measure of economic impact. In this study, jobs are identified for airport management and airport tenants. Spending by visitors who come to Oklahoma on general aviation aircraft or on scheduled commercial carriers also support other jobs. Additionally, while investment is being made to implement capital projects, this investment helps to support jobs over the duration of the project's actual planning and construction.
- **Payroll** measured in this study is that associated with all jobs supported by airport management, airport tenants, capital investment, and air visitors.
- **Spending** for airport management and airport tenants equals their annual purchase of goods and services to run the airport or to run their business. Spending for airports and airport tenants does not include payroll nor does it contain CIP investment. In the visitor categories, spending is equal to the expenditures that all visitors have for lodging, food, ground transportation, entertainment, and retail. In the CIP category, spending is equal to total investment made to implement projects, minus the estimated cost for labor.

- **Annual Economic Activity** - For all categories, it is important to show the total annual economic impact that Oklahoma realizes from airports, aviation, and aerospace. For each of the impact categories, annual economic activity is the sum of payroll and spending.

For this study, economic impacts for the state and for individual airports are expressed in terms of jobs, the annual payroll associated with the jobs, annual spending, and the annual economic activity that each airport supports through expenditures in the spending and payroll categories. As noted, each of these four measurement categories (jobs, payroll, spending, and economic activity) are used to quantify total annual economic impacts from airport management, tenants, capital investment, and visitor spending for Oklahoma's 109 public, commercial, and general aviation airports.

## 2.3 Method to Estimate Airport Specific Economic Impacts

For this study, all economic impacts were assigned to the following categories: direct impacts, indirect/induced impacts, and total annual economic impacts. These categories are described below:

- **Direct Impacts:** All impacts measured in this study start with direct economic impacts. Direct economic impacts are the start of the economic impact process measured in this report. For this OAC study, all direct impacts were collected from airports or airport tenants, from OAC, the FAA, USDOT, the military, aviation/aerospace employers, and/or from Oklahoma's air visitors. Since direct impacts can be measured/counted, it is important that these impacts be accurate and credible to the audience for this report.
- **Indirect/Induced Impacts:** When direct impacts enter state and local economies, they re-circulate or multiply creating additional waves of economic impact. Impacts in this category are often referred to as multiplier impacts. For example, when a "direct" airport employee uses his or her payroll to buy groceries, pay for child care, or take their family pet to a local veterinarian, the direct airport-related payroll is being infused into other sectors of the economy, creating indirect/induced economic impacts. Indirect impacts are most often associated with multipliers associated with the industrial, distribution, professional services, or utility sectors of the economy. Induced impacts are most often associated with multiplier impacts in the retail and service sectors of the economy. Later sections of this report provide more information on the modeling process used in this study to estimate indirect/induced economic impacts.
- **Total Economic Impacts:** For this study, total impacts are the sum of direct and indirect/induced impacts in each of the measurement categories.

## 3.0 DIRECT ECONOMIC IMPACTS FOR OKLAHOMA'S 109 COMMERCIAL AND GENERAL AVIATION AIRPORTS

As indicated, all economic impacts for the commercial and general aviation airports discussed in this report start with impacts in the direct impact category. The following sections discuss direct economic impacts that were identified for activities in the airport management, airport tenant, capital investment, and air visitor categories.

All direct economic impacts for the public airports included in this report start with the daily operation of the airports; activities needed to serve customers using each airport; and steps that the airports take to maintain, improve, and expand their infrastructure. While not all direct impacts discussed take place on-airport, all direct impacts are linked to the airports and their operations. Direct airport related impacts for jobs, payroll, spending, and economic activity are identified in this report as they relate to airport management, airport tenants, capital investment, and visitors (both general aviation and commercial as applicable).

### 3.1 Estimates of Direct Impacts for Airport Management

For this report, the 109 public airports in Oklahoma served as the primary source for identifying most direct impacts. Through surveys, on-site visits, and phone interviews, airports provided information on airport management related employment, payroll, and the airport’s annual non-capital and non-payroll spending for goods and services. As part of this study, when all direct impacts were documented, each airport manager was provided with the opportunity to review a report showing direct impacts identified by this study. This review enabled each airport to verify information that served as the basis for their airport’s annual economic impact presented in this document.

For reasons of confidentiality direct airport management payroll is not published in this report because many of the public airports have small numbers of direct jobs in the airport management category. **Table 1 – Direct Airport Management Employment and Annual Economic Activity** provides information that shows direct full-time equivalent jobs reported by each airport, along with their reported direct annual economic activity, this includes spending for goods and services and payroll. Jobs shown in **Table 1** are the sum of all full-time on- and off-airport jobs, all part-time on- and off-airport jobs (translated into full-time jobs based on the number of hours worked by each airport employee), and all seasonal jobs (translated into full-time jobs based on the number of hours worked for the airport).

Annual economic activity shown for airport management was obtained from each airport, as was the information on employment presented in **Table 1**. When reviewing **Table 1**, it is important to note that employment to operate some public-use airports is so minimal that it does not equate to one full-time job. In some instances, Oklahoma airports are operated by non-compensated volunteers. In these particular instances, there is no direct employment in the airport management category. Also, some airports are operated by Fixed Base Operators (FBOs); if this is the case, then the direct economic activity for the airport management function is reported as part of the direct economic impacts for airport tenants.

TABLE 1 – DIRECT AIRPORT MANAGEMENT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Annual Economic Activity
LAW	Lawton-Ft. Sill Regional Airport	Lawton	9.0	\$831,672
OKC	Will Rogers World Airport	Oklahoma City	141.0	\$26,180,952
SWO	Stillwater Regional Airport	Stillwater	14.0	\$1,311,716
TUL	Tulsa International Airport	Tulsa	133.0	\$18,188,800
ADH	Ada Municipal Airport	Ada	2.0	\$207,350
AXS	Altus/Quartz Mountain Regional Airport	Altus	3.0	\$528,000
AVK	Alva Regional Airport	Alva	4.0	\$436,782
F68	Anadarko Municipal Airport	Anadarko	1.0	\$80,550
80F	Antlers Municipal Airport	Antlers	1.0	\$35,500
1F0	Ardmore Downtown Executive	Ardmore	1.5	\$263,775
ADM	Ardmore Municipal	Ardmore	4.0	\$1,317,000
AQR	Atoka Municipal Airport	Atoka	2.0	\$89,460
BVO	Bartlesville Municipal Airport	Bartlesville	12.0	\$987,500
K44	Beaver Municipal Airport	Beaver	1.0	\$43,700

TABLE 1 – DIRECT AIRPORT MANAGEMENT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Annual Economic Activity
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	2.0	\$138,000
17K	Boise City Airport	Boise City	0.5	\$18,846
3F7	Jones Memorial Airport	Bristow	1.5	\$134,900
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	1.0	\$87,750
BFK	Buffalo Municipal Airport	Buffalo	0.5	\$20,000
91F	Carlton Landing Field	Canadian	0.5	\$28,000
86F	Carnegie Municipal Airport	Carnegie	1.0	\$23,508
CQB	Chandler Regional Airport	Chandler	0.5	\$222,000
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	\$28,000
4O5	Cherokee Municipal Airport	Cherokee	0.5	\$15,500
93F	Mignon Laird Municipal Airport	Cheyenne	0.5	\$18,500
CHK	Chickasha Municipal Airport	Chickasha	3.0	\$269,949
GCM	Claremore Regional Airport	Claremore	4.0	\$185,000
95F	Cleveland Municipal Airport	Cleveland	0.5	\$28,000
CLK	Clinton Regional Airport	Clinton	5.0	\$606,143
CSM	Clinton-Sherman Airport	Clinton	8.0	\$1,064,112
44M	Tenkiller Lake Airpark	Cookson	0.5	\$28,000
F36	Cordell Municipal Airport	Cordell	1.0	\$49,000
CUH	Cushing Municipal Airport	Cushing	2.0	\$43,000
DUC	Halliburton Field Airport	Duncan	2.0	\$154,100
DUA	Durant Regional Airport - Eaker Field	Durant	3.0	\$236,394
RQO	El Reno Regional Airport	El Reno	3.0	\$387,385
ELK	Elk City Regional Business Airport	Elk City	4.5	\$532,543
WDG	Enid Woodring Regional Airport	Enid	11.0	\$946,692
F08	Eufaula Municipal Airport	Eufaula	1.0	\$19,163
0F7	Fountainhead Lodge Airpark	Eufaula	0.5	\$28,000
6K4	Fairview Municipal Airport	Fairview	1.5	\$54,100
FDR	Frederick Regional Airport	Frederick	0.5	\$14,600
GAG	Gage Airport	Gage	0.5	\$16,200
1K4	David Jay Perry Airport	Goldsby	2.0	\$124,000
1O1	Grandfield Municipal Airport	Grandfield	0.5	\$25,510
GMJ	Grove Regional Airport	Grove	4.0	\$233,000
GOK	Guthrie-Edmond Regional Airport	Guthrie	4.0	\$321,462

**TABLE 1 – DIRECT AIRPORT MANAGEMENT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY**

FAA ID	Airport Name	Associated City	Direct Employment	Direct Annual Economic Activity
GUY	Guymon Municipal Airport	Guymon	0.5	\$59,599
F32	Healdton Municipal Airport	Healdton	0.5	\$11,000
F10	Henryetta Municipal Airport	Henryetta	1.0	\$51,500
208	Hinton Municipal Airport	Hinton	1.5	\$45,150
HBR	Hobart Regional Airport	Hobart	1.0	\$138,136
F99	Holdenville Municipal Airport	Holdenville	0.5	\$18,300
O35	Hollis Municipal Airport	Hollis	0.5	\$15,500
H92	Hominy Municipal Airport	Hominy	0.5	\$13,277
O45	Hooker Municipal Airport	Hooker	1.5	\$75,000
HHW	Stan Stamper Municipal Airport	Hugo	1.5	\$141,611
404	McCurtain County Regional Airport	Idabel	2.5	\$143,494
1K8	South Grand Lake Regional Airport	Ketchum	0.5	\$118,500
F92	Kingfisher Airport	Kingfisher	1.0	\$26,000
F31	Lake Texoma State Park Airport	Kingston	0.5	\$28,000
O51	Laverne Municipal Airport	Laverne	0.5	\$28,000
1K2	Lindsay Municipal Airport	Lindsay	0.5	\$24,315
1F4	Madill Municipal Airport	Madill	1.0	\$23,000
2K4	Scott Field Airport	Mangum	0.5	\$11,000
MLC	McAlester Regional Airport	McAlester	4.5	\$239,900
O53	Medford Municipal Airport	Medford	0.5	\$25,950
MIO	Miami Regional Airport	Miami	3.5	\$218,530
MDF	Mooreland Municipal Airport	Mooreland	0.5	\$55,750
MKO	Muskogee Davis Regional Airport	Muskogee	5.0	\$187,740
OUN	University of Oklahoma Westheimer Airport	Norman	10.5	\$2,322,400
O65	Christman Airfield	Okeene	0.5	\$20,500
F81	Okemah Flying Field Airport	Okemah	0.5	\$28,000
RCE	Clarence E Page Municipal Airport	Oklahoma City	2.0	\$343,274
PWA	Wiley Post Airport	Oklahoma City	9.0	\$1,363,644
OKM	Okmulgee Regional Airport	Okmulgee	2.5	\$193,233
PVJ	Pauls Valley Municipal Airport	Pauls Valley	1.0	\$59,401
H76	Pawhuska Municipal Airport	Pawhuska	0.5	\$28,000
F22	Perry Municipal Airport	Perry	2.5	\$338,700
PNC	Ponca City Regional Airport	Ponca City	7.5	\$993,000

TABLE 1 – DIRECT AIRPORT MANAGEMENT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Annual Economic Activity
RKR	Robert S Kerr Airport	Poteau	3.0	\$307,797
O47	Prague Municipal Airport	Prague	0.5	\$22,800
H71	Mid-America Industrial Airport	Pryor	2.0	\$341,000
303	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	0.5	\$16,500
JSV	Sallisaw Municipal Airport	Sallisaw	1.0	\$144,707
OWP	William R. Pogue Municipal Airport	Sand Springs	3.5	\$456,230
304	Sayre Municipal Airport	Sayre	1.5	\$49,240
SRE	Seminole Municipal Airport	Seminole	3.5	\$267,200
SNL	Shawnee Regional Airport	Shawnee	6.0	\$512,101
2F6	Skiatook Municipal Airport	Skiatook	0.5	\$58,000
GZL	Stigler Regional Airport	Stigler	1.5	\$61,920
SUD	Stroud Municipal Airport	Stroud	0.5	\$36,358
F30	Sulphur Municipal Airport	Sulphur	0.5	\$28,000
TQH	Tahlequah Municipal Airport	Tahlequah	0.5	\$319,198
6F1	Talihina Municipal Airport	Talihina	0.5	\$4,684
K49	Texhoma Municipal Airport	Texhoma	0.5	\$14,600
104	Thomas Municipal Airport	Thomas	1.0	\$36,000
108	Tipton Municipal Airport	Tipton	0.5	\$15,950
0F9	Tishomingo Airpark	Tishomingo	0.5	\$13,250
RVS	Richard Lloyd Jones Jr Airport	Tulsa	6.0	\$440,600
H04	Vinita Municipal Airport	Vinita	1.0	\$38,500
H68	Hefner-Easley Airport	Wagoner	1.0	\$31,000
305	Walters Municipal Airport	Walters	0.5	\$14,450
JWG	Watonga Regional Airport	Watonga	2.0	\$67,700
1K5	Waynoka Municipal Airport	Waynoka	0.5	\$28,000
OJA	Thomas P Stafford Airport	Weatherford	4.5	\$205,400
4F1	Westport Airport	Westport	0.5	\$28,000
H05	Wilburton Municipal Airport	Wilburton	0.5	\$18,900
WWR	West Woodward Airport	Woodward	6.5	\$485,528
<b>Total Commercial Service Airports</b>			<b>297.0</b>	<b>\$46,513,140</b>
<b>Total General Aviation Airports</b>			<b>220.0</b>	<b>\$21,543,989</b>
<b>Total All Airports</b>			<b>517.0</b>	<b>\$68,057,129</b>

Source: Study Airports, OAC

### 3.2 Estimates of Direct Impacts for Airport Tenants

Each Oklahoma airport provided a list and contact information for all aviation-related tenants that do business and provide services at their airport. All tenants were contacted on several occasions either in person, by email, by mail, or by phone to obtain information on the types of services they provide; their full-time, part-time, and seasonal employment; their annual payroll; and their annual expenditures to purchase of goods and services to run their business. Tenants at airports change occasionally, information for tenant impacts presented in this report represents conditions at the time this study was conducted.

When individual tenants did not respond to data requests, follow-up with airport management on tenant employment was undertaken, as was a review of third party business information sources such as Dunn and Bradstreet and/or Manta. In some instance, OAC or the Oklahoma Department of Commerce provided data to verify tenant employment. For this study, all direct impacts in the airport tenant category, employment, payroll, and spending, were estimated using data from one or more of these sources.

Study research showed that many of the smaller general aviation airports in Oklahoma do not have aviation related tenants. For those public airports that do have aviation related tenants, many have only one on-site tenant. Therefore, to protect confidentiality, direct payroll for airport tenants is not reported in **Table 2 – Direct Airport Tenant Employment and Annual Economic Activity**. Annual economic activity shown in **Table 2** represents combined payroll and annual purchases for goods and services by all aviation tenants identified at each airport. It is worth noting that spending by tenants that are classified as aerial applicators is typically high because of their cost to purchase chemicals needed for their business. Direct annual tenant economic activity shown in **Table 2** does not reflect spending for capital projects, as this spending is accounted for in another activity center.

**Table 2** provides total full-time tenant related jobs for each airport; part-time and seasonal jobs have been converted to full-time jobs based on the reported number of hours these employees worked directly in support of the airport. **Table 2** also reports the total number of aviation related tenants reported for each airport; for many airports, this number was zero.

TABLE 2 – DIRECT AIRPORT TENANT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Number of Tenants	Direct Tenant Employment	Direct Economic Activity
LAW	Lawton-Ft. Sill Regional Airport	Lawton	12	78.5	\$8,509,753
OKC	Will Rogers World Airport	Oklahoma City	41	9,011.9	\$1,485,394,138
SWO	Stillwater Regional Airport	Stillwater	15	127.0	\$14,160,970
TUL	Tulsa International Airport	Tulsa	63	10,485.0	\$2,371,266,572
ADH	Ada Municipal Airport	Ada	7	77.0	\$10,069,611
AXS	Altus/Quartz Mountain Regional Airport	Altus	5	32.5	\$4,890,490
AVK	Alva Regional Airport	Alva	2	29.0	\$3,056,809
F68	Anadarko Municipal Airport	Anadarko	1	1.5	\$190,000
80F	Antlers Municipal Airport	Antlers	0	0.0	\$0
1F0	Ardmore Downtown Executive	Ardmore	6	19.5	\$2,191,531
ADM	Ardmore Municipal	Ardmore	4	90.0	\$8,358,209
AQR	Atoka Municipal Airport	Atoka	0	0.0	\$0



**TABLE 2 – DIRECT AIRPORT TENANT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY**

FAA ID	Airport Name	Associated City	Number of Tenants	Direct Tenant Employment	Direct Economic Activity
BVO	Bartlesville Municipal Airport	Bartlesville	9	31.3	\$5,200,270
K44	Beaver Municipal Airport	Beaver	0	0.0	\$0
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	1	2.5	\$1,000,000
17K	Boise City Airport	Boise City	1	1.4	\$136,000
3F7	Jones Memorial Airport	Bristow	2	23.5	\$2,721,000
90F	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	Broken Bow	0	0.0	\$0
BFK	Buffalo Municipal Airport	Buffalo	0	0.0	\$0
91F	Carlton Landing Field	Canadian	0	0.0	\$0
86F	Carnegie Municipal Airport	Carnegie	0	0.0	\$0
CQB	Chandler Regional Airport	Chandler	1	1.0	\$250,772
92F	Chattanooga Sky Harbor Airport	Chattanooga	1	0.5	\$41,000
4O5	Cherokee Municipal Airport	Cherokee	0	0.0	\$0
93F	Mignon Laird Municipal Airport	Cheyenne	0	0.0	\$0
CHK	Chickasha Municipal Airport	Chickasha	3	19.5	\$1,786,641
GCM	Claremore Regional Airport	Claremore	6	25.0	\$2,385,838
95F	Cleveland Municipal Airport	Cleveland	1	4.0	\$1,003,086
CLK	Clinton Regional Airport	Clinton	5	7.5	\$517,289
CSM	Clinton-Sherman Airport	Clinton	1	14.0	\$1,476,092
44M	Tenkiller Lake Airpark	Cookson	0	0.0	\$0
F36	Cordell Municipal Airport	Cordell	0	0.0	\$0
CUH	Cushing Municipal Airport	Cushing	5	23.8	\$2,035,065
DUC	Halliburton Field Airport	Duncan	3	14.5	\$1,522,916
DUA	Durant Regional Airport - Eaker Field	Durant	5	23.1	\$2,222,066
RQO	El Reno Regional Airport	El Reno	5	24.0	\$2,306,600
ELK	Elk City Regional Business Airport	Elk City	2	18.0	\$2,073,511
WDG	Enid Woodring Regional Airport	Enid	12	95.0	\$10,137,151
F08	Eufaula Municipal Airport	Eufaula	0	0.0	\$0
0F7	Fountainhead Lodge Airpark	Eufaula	0	0.0	\$0
6K4	Fairview Municipal Airport	Fairview	1	4.0	\$780,240
FDR	Frederick Regional Airport	Frederick	0	0.0	\$0
GAG	Gage Airport	Gage	0	0.0	\$0
1K4	David Jay Perry Airport	Goldsby	0	0.0	\$0
1O1	Grandfield Municipal Airport	Grandfield	1	2.5	\$620,250

TABLE 2 – DIRECT AIRPORT TENANT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Number of Tenants	Direct Tenant Employment	Direct Economic Activity
GMJ	Grove Regional Airport	Grove	4	5.0	\$542,617
GOK	Guthrie-Edmond Regional Airport	Guthrie	6	64.0	\$7,630,384
GUY	Guymon Municipal Airport	Guymon	5	12.0	\$1,134,411
F32	Healdton Municipal Airport	Healdton	0	0.0	\$0
F10	Henryetta Municipal Airport	Henryetta	0	0.0	\$0
208	Hinton Municipal Airport	Hinton	0	0.0	\$0
HBR	Hobart Regional Airport	Hobart	1	4.0	\$362,000
F99	Holdenville Municipal Airport	Holdenville	3	3.5	\$387,834
O35	Hollis Municipal Airport	Hollis	1	7.0	\$633,500
H92	Hominy Municipal Airport	Hominy	0	0.0	\$0
O45	Hooker Municipal Airport	Hooker	1	2.0	\$350,000
HHW	Stan Stamper Municipal Airport	Hugo	2	14.0	\$1,351,582
404	McCurtain County Regional Airport	Idabel	0	0.0	\$0
1K8	South Grand Lake Regional Airport	Ketchum	1	3.0	\$210,000
F92	Kingfisher Airport	Kingfisher	2	5.0	\$561,000
F31	Lake Texoma State Park Airport	Kingston	0	0.0	\$0
O51	Laverne Municipal Airport	Laverne	1	2.0	\$335,000
1K2	Lindsay Municipal Airport	Lindsay	0	0.0	\$0
1F4	Madill Municipal Airport	Madill	1	1.0	\$95,300
2K4	Scott Field Airport	Mangum	0	0.0	\$0
MLC	McAlester Regional Airport	McAlester	5	33.5	\$3,533,848
O53	Medford Municipal Airport	Medford	1	1.5	\$135,750
MIO	Miami Regional Airport	Miami	5	7.0	\$1,453,156
MDF	Mooreland Municipal Airport	Mooreland	0	0.0	\$0
MKO	Muskogee Davis Regional Airport	Muskogee	3	13.0	\$1,566,297
OUN	University of Oklahoma Westheimer Airport	Norman	16	114.5	\$9,159,703
O65	Christman Airfield	Okeene	1	7.5	\$678,750
F81	Okemah Flying Field Airport	Okemah	0	0.0	\$0
RCE	Clarence E Page Municipal Airport	Oklahoma City	1	28.0	\$4,536,000
PWA	Wiley Post Airport	Oklahoma City	80	609.5	\$74,503,940
OKM	Okmulgee Regional Airport	Okmulgee	2	76.0	\$7,277,500
PVJ	Pauls Valley Municipal Airport	Pauls Valley	4	7.0	\$1,852,315
H76	Pawhuska Municipal Airport	Pawhuska	1	1.0	\$90,500

**TABLE 2 – DIRECT AIRPORT TENANT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY**

FAA ID	Airport Name	Associated City	Number of Tenants	Direct Tenant Employment	Direct Economic Activity
F22	Perry Municipal Airport	Perry	3	7.5	\$1,473,858
PNC	Ponca City Regional Airport	Ponca City	3	11.5	\$3,355,677
RKR	Robert S Kerr Airport	Poteau	0	2.0	\$281,276
O47	Prague Municipal Airport	Prague	0	0.0	\$0
H71	Mid-America Industrial Airport	Pryor	1	8.0	\$788,230
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	0	0.0	\$0
JSV	Sallisaw Municipal Airport	Sallisaw	5	12.0	\$1,739,525
OWP	William R. Pogue Municipal Airport	Sand Springs	4	8.0	\$697,240
3O4	Sayre Municipal Airport	Sayre	0	0.0	\$0
SRE	Seminole Municipal Airport	Seminole	3	13.0	\$1,222,230
SNL	Shawnee Regional Airport	Shawnee	8	27.0	\$3,541,055
2F6	Skiatook Municipal Airport	Skiatook	1	5.0	\$517,055
GZL	Stigler Regional Airport	Stigler	0	0.0	\$0
SUD	Stroud Municipal Airport	Stroud	0	0.0	\$0
F30	Sulphur Municipal Airport	Sulphur	0	0.0	\$0
TQH	Tahlequah Municipal Airport	Tahlequah	1	8.0	\$2,006,173
6F1	Talihina Municipal Airport	Talihina	0	0.0	\$0
K49	Texhoma Municipal Airport	Texhoma	0	2.0	\$181,000
1O4	Thomas Municipal Airport	Thomas	3	11.0	\$1,960,250
1O8	Tipton Municipal Airport	Tipton	0	0.0	\$0
0F9	Tishomingo Airpark	Tishomingo	0	0.0	\$0
RVS	Richard Lloyd Jones Jr Airport	Tulsa	27	268.0	\$28,037,717
H04	Vinita Municipal Airport	Vinita	0	0.0	\$0
H68	Hefner-Easley Airport	Wagoner	0	0.0	\$0
3O5	Walters Municipal Airport	Walters	1	1.5	\$225,750
JWG	Watonga Regional Airport	Watonga	2	4.0	\$386,050
1K5	Waynoka Municipal Airport	Waynoka	0	0.0	\$0
OJA	Thomas P Stafford Airport	Weatherford	6	11.0	\$2,319,235
4F1	Westport Airport	Westport	0	0.0	\$0
H05	Wilburton Municipal Airport	Wilburton	0	0.0	\$0
WWR	West Woodward Airport	Woodward	1	1.0	\$137,084
<b>Total Commercial Service Airports</b>			<b>131</b>	<b>19,702</b>	<b>\$3,879,331,433</b>
<b>Total General Aviation Airports</b>			<b>306</b>	<b>2,006</b>	<b>\$234,223,230</b>

TABLE 2 – DIRECT AIRPORT TENANT EMPLOYMENT AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Number of Tenants	Direct Tenant Employment	Direct Economic Activity
<b>Total All Airports</b>			<b>437</b>	<b>21,708</b>	<b>\$4,113,554,664</b>

Source: Airport Tenants, Airport Management, OAC, Dunn & Bradstreet/MANTA

### 3.1 Estimates of Direct Impacts for Capital Investment

As indicated, while direct capital investment is on-going at an airport, this investment supports employment and payroll over the actual duration of the project’s implementation. Each airport’s direct economic impact, in this category, has the potential to change between cycles for measuring airport-related economic impact. This is because capital investment at any given airport changes year-to-year.

For this study, direct capital investment impacts were estimated using information supplied by OAC, the FAA, study airports, and tenants at the public airports. The goal was to capture investment that has been made at Oklahoma airports by local, state, and federal governments, as well as to consider private investment. Local investment, although not entirely, is made primarily to match state and FAA grants. Much of the local investment at commercial airports is used to fund infrastructure that is not eligible to receive state or FAA grants. Private investment at some study airports has also taken place, primarily to build hangars and other commercial buildings and infrastructure.

Since capital investment at an airport changes year-to-year, average annual investment, both public and private, over the past five years was used to estimate direct impacts in this category. In the capital investment impact category, average annual capital investment, statewide and airport specific, equates to economic activity since reported values reflect both the cost of materials and labor. Once average annual CIP economic activity is established, information in the IMPLAN model is used to estimate direct employment for this impact category. The model also provides information that indicates the portion of each airport’s annual CIP economic activity that is labor-related payroll versus the portion allocated to goods, materials, and supplies. **Table 3 – Direct Impacts from Average Annual Capital Investment** provides average annual direct economic activity for each public airport in the capital investment category. **Table 3** shows direct employment, payroll, spending, and annual economic activity (spending and payroll) in the capital investment category.

TABLE 3 – DIRECT IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Annual Economic Activity
LAW	Lawton-Ft. Sill Regional Airport	Lawton	10.0	\$385,570	\$1,238,608	\$1,624,178
OKC	Will Rogers World Airport	Oklahoma City	527.0	\$20,335,928	\$65,327,403	\$85,663,331
SWO	Stillwater Regional Airport	Stillwater	19.5	\$743,730	\$2,389,168	\$3,132,898
TUL	Tulsa International Airport	Tulsa	384.0	\$14,825,602	\$47,625,961	\$62,451,563
ADH	Ada Municipal Airport	Ada	12.0	\$463,763	\$1,489,798	\$1,953,561
AXS	Altus/Quartz Mountain Regional Airport	Altus	2.0	\$82,595	\$265,327	\$347,922
AVK	Alva Regional Airport	Alva	1.0	\$40,015	\$128,546	\$168,561
F68	Anadarko Municipal Airport	Anadarko	0.5	\$28,086	\$90,224	\$118,310

TABLE 3 – DIRECT IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Annual Economic Activity
80F	Antlers Municipal Airport	Antlers	1.0	\$33,032	\$106,114	\$139,146
1F0	Ardmore Downtown Executive	Ardmore	2.0	\$82,738	\$265,788	\$348,526
ADM	Ardmore Municipal	Ardmore	13.5	\$517,395	\$1,662,085	\$2,179,480
AQR	Atoka Municipal Airport	Atoka	1.0	\$46,943	\$150,801	\$197,744
BVO	Bartlesville Municipal Airport	Bartlesville	3.0	\$131,998	\$424,033	\$556,031
K44	Beaver Municipal Airport	Beaver	0.0	\$3,262	\$10,478	\$13,740
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	1.0	\$36,270	\$116,513	\$152,783
17K	Boise City Airport	Boise City	0.6	\$22,448	\$72,111	\$94,559
3F7	Jones Memorial Airport	Bristow	8.0	\$311,608	\$1,001,014	\$1,312,622
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	0.0	\$8,784	\$28,216	\$37,000
BFK	Buffalo Municipal Airport	Buffalo	1.0	\$32,828	\$105,456	\$138,284
91F	Carlton Landing Field	Canadian	2.0	\$64,096	\$205,904	\$270,000
86F	Carnegie Municipal Airport	Carnegie	1.0	\$40,210	\$129,173	\$169,383
CQB	Chandler Regional Airport	Chandler	2.0	\$72,639	\$233,347	\$305,986
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	\$16,072	\$51,628	\$67,700
4O5	Cherokee Municipal Airport	Cherokee	1.0	\$35,128	\$112,845	\$147,973
93F	Mignon Laird Municipal Airport	Cheyenne	0.0	\$915	\$2,939	\$3,854
CHK	Chickasha Municipal Airport	Chickasha	1.0	\$41,959	\$134,791	\$176,750
GCM	Claremore Regional Airport	Claremore	4.5	\$171,770	\$551,846	\$723,616
95F	Cleveland Municipal Airport	Cleveland	0.5	\$16,711	\$53,683	\$70,394
CLK	Clinton Regional Airport	Clinton	2.0	\$23,739	\$224,253	\$294,061
CSM	Clinton-Sherman Airport	Clinton	0.5	\$69,808	\$76,261	\$100,000
44M	Tenkiller Lake Airpark	Cookson	0.0	\$0	\$0	\$0
F36	Cordell Municipal Airport	Cordell	1.0	\$31,909	\$102,507	\$134,416
CUH	Cushing Municipal Airport	Cushing	1.0	\$33,045	\$106,155	\$139,200
DUC	Halliburton Field Airport	Duncan	2.0	\$82,019	\$263,481	\$345,500
DUA	Durant Regional Airport - Eaker Field	Durant	2.0	\$85,079	\$273,308	\$358,387
RQO	El Reno Regional Airport	El Reno	0.5	\$18,453	\$59,280	\$77,733
ELK	Elk City Regional Business Airport	Elk City	2.0	\$90,569	\$290,945	\$381,514
WDG	Enid Woodring Regional Airport	Enid	14.0	\$557,790	\$1,791,852	\$2,349,642
F08	Eufaula Municipal Airport	Eufaula	1.0	\$39,039	\$125,411	\$164,450
0F7	Fountainhead Lodge Airpark	Eufaula	0.0	\$0	\$0	\$0

TABLE 3 – DIRECT IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Annual Economic Activity
6K4	Fairview Municipal Airport	Fairview	2.0	\$90,308	\$290,105	\$380,413
FDR	Frederick Regional Airport	Frederick	7.0	\$258,717	\$831,105	\$1,089,822
GAG	Gage Airport	Gage	1.0	\$33,568	\$107,832	\$141,400
1K4	David Jay Perry Airport	Goldsby	4.0	\$168,977	\$542,822	\$711,799
1O1	Grandfield Municipal Airport	Grandfield	0.5	\$21,715	\$69,756	\$91,471
GMJ	Grove Regional Airport	Grove	5.5	\$202,848	\$651,632	\$854,480
GOK	Guthrie-Edmond Regional Airport	Guthrie	4.0	\$151,804	\$487,657	\$639,461
GUY	Guymon Municipal Airport	Guymon	4.0	\$170,942	\$549,135	\$720,077
F32	Healdton Municipal Airport	Healdton	0.0	\$0	\$0	\$0
F10	Henryetta Municipal Airport	Henryetta	0.0	\$0	\$0	\$0
2O8	Hinton Municipal Airport	Hinton	1.0	\$53,704	\$172,521	\$226,225
HBR	Hobart Regional Airport	Hobart	1.0	\$31,842	\$102,291	\$134,133
F99	Holdenville Municipal Airport	Holdenville	0.0	\$0	\$0	\$0
O35	Hollis Municipal Airport	Hollis	0.0	\$2,935	\$9,427	\$12,362
H92	Hominy Municipal Airport	Hominy	0.5	\$9,454	\$28,787	\$38,241
O45	Hooker Municipal Airport	Hooker	1.0	\$37,643	\$120,924	\$158,567
HHW	Stan Stamper Municipal Airport	Hugo	0.5	\$28,139	\$90,395	\$118,534
4O4	McCurtain County Regional Airport	Idabel	4.0	\$168,785	\$542,205	\$710,990
1K8	South Grand Lake Regional Airport	Ketchum	3.5	\$131,951	\$423,879	\$555,830
F92	Kingfisher Airport	Kingfisher	1.0	\$48,223	\$154,911	\$203,134
F31	Lake Texoma State Park Airport	Kingston	0.0	\$0	\$0	\$0
O51	Laverne Municipal Airport	Laverne	0.0	\$0	\$0	\$0
1K2	Lindsay Municipal Airport	Lindsay	1.0	\$42,865	\$137,701	\$180,566
1F4	Madill Municipal Airport	Madill	1.0	\$29,477	\$94,693	\$124,170
2K4	Scott Field Airport	Mangum	1.0	\$48,296	\$155,145	\$203,441
MLC	McAlester Regional Airport	McAlester	3.0	\$125,884	\$404,392	\$530,276
O53	Medford Municipal Airport	Medford	0.5	\$16,429	\$52,776	\$69,205
MIO	Miami Regional Airport	Miami	4.0	\$140,248	\$450,535	\$590,783
MDF	Mooreland Municipal Airport	Mooreland	0.0	\$7,958	\$25,564	\$33,522
MKO	Muskogee Davis Regional Airport	Muskogee	5.5	\$214,382	\$688,682	\$903,064
OUN	University of Oklahoma Westheimer Airport	Norman	6.5	\$252,331	\$810,593	\$1,062,924
O65	Christman Airfield	Okeene	1.0	\$36,708	\$117,921	\$154,629

TABLE 3 – DIRECT IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Annual Economic Activity
F81	Okemah Flying Field Airport	Okemah	1.0	\$89,590	\$287,799	\$377,389
RCE	Clarence E Page Municipal Airport	Oklahoma City	4.0	\$171,631	\$551,349	\$722,980
PWA	Wiley Post Airport	Oklahoma City	22.0	\$861,122	\$2,766,281	\$3,627,403
OKM	Okmulgee Regional Airport	Okmulgee	1.0	\$43,112	\$138,493	\$181,605
PVJ	Pauls Valley Municipal Airport	Pauls Valley	5.0	\$187,971	\$603,839	\$791,810
H76	Pawhuska Municipal Airport	Pawhuska	0.5	\$13,137	\$42,203	\$55,340
F22	Perry Municipal Airport	Perry	2.0	\$78,823	\$253,210	\$332,033
PNC	Ponca City Regional Airport	Ponca City	1.5	\$54,877	\$176,286	\$231,163
RKR	Robert S Kerr Airport	Poteau	2.0	\$80,592	\$258,894	\$339,486
O47	Prague Municipal Airport	Prague	2.0	\$74,417	\$239,059	\$313,476
H71	Mid-America Industrial Airport	Pryor	3.0	\$112,442	\$361,209	\$473,651
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	3.0	\$99,339	\$319,120	\$418,459
JSV	Sallisaw Municipal Airport	Sallisaw	1.0	\$35,646	\$114,510	\$150,156
OWP	William R. Pogue Municipal Airport	Sand Springs	5.5	\$200,721	\$644,799	\$845,520
3O4	Sayre Municipal Airport	Sayre	1.0	\$41,006	\$131,730	\$172,736
SRE	Seminole Municipal Airport	Seminole	5.0	\$184,129	\$591,496	\$775,625
SNL	Shawnee Regional Airport	Shawnee	7.0	\$269,628	\$866,157	\$1,135,785
2F6	Skiatook Municipal Airport	Skiatook	1.5	\$55,512	\$178,327	\$233,839
GZL	Stigler Regional Airport	Stigler	2.0	\$69,455	\$223,119	\$292,574
SUD	Stroud Municipal Airport	Stroud	1.0	\$46,349	\$148,894	\$195,243
F30	Sulphur Municipal Airport	Sulphur	0.5	\$21,401	\$68,750	\$90,151
TQH	Tahlequah Municipal Airport	Tahlequah	2.0	\$68,871	\$221,241	\$290,112
6F1	Talihina Municipal Airport	Talihina	1.0	\$15,826	\$50,841	\$66,667
K49	Texhoma Municipal Airport	Texhoma	0.0	\$0	\$0	\$0
1O4	Thomas Municipal Airport	Thomas	1.5	\$63,378	\$203,595	\$266,973
1O8	Tipton Municipal Airport	Tipton	0.0	\$0	\$0	\$0
0F9	Tishomingo Airpark	Tishomingo	1.0	\$51,279	\$164,727	\$216,006
RVS	Richard Lloyd Jones Jr Airport	Tulsa	42.0	\$1,610,199	\$5,172,625	\$6,782,824
H04	Vinita Municipal Airport	Vinita	1.0	\$50,963	\$163,715	\$214,678
H68	Hefner-Easley Airport	Wagoner	1.0	\$32,999	\$106,007	\$139,006
3O5	Walters Municipal Airport	Walters	0.5	\$18,283	\$58,731	\$77,014
JWG	Watonga Regional Airport	Watonga	1.5	\$57,685	\$185,306	\$242,991

TABLE 3 – DIRECT IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Annual Economic Activity
1K5	Waynoka Municipal Airport	Waynoka	0.5	\$28,440	\$91,362	\$119,802
OJA	Thomas P Stafford Airport	Weatherford	4.0	\$152,035	\$488,398	\$640,433
4F1	Westport Airport	Westport	0.0	\$0	\$0	\$0
H05	Wilburton Municipal Airport	Wilburton	1.0	\$50,869	\$163,411	\$214,280
WWR	West Woodward Airport	Woodward	5.5	\$209,967	\$674,501	\$884,468
Total Commercial Service Airports			940.5	\$36,290,830	\$116,581,140	\$152,871,970
Total General Aviation Airports			283.1	\$11,060,542	\$35,529,483	\$46,590,025
<b>Total All Airports</b>			<b>1,223.6</b>	<b>\$47,351,372</b>	<b>\$152,110,623</b>	<b>\$199,461,995</b>

Source: OAC, FAA, Oklahoma Airport Managers, Airport Tenants

### 3.2 Estimates of Direct Impacts from General Aviation Visitors

Estimates of general aviation visitors are not available from any existing data sources. Therefore, to estimate general aviation visitors, this study considered both bottom-up and top-down approaches.

For the bottom-up approach, Oklahoma airports provided estimates of the number of visiting general aviation aircraft each accommodates during an average week. Airports also provided an estimate for the mix of their weekly visiting general aviation aircraft (single-engine, multi-engine, and jet). The typical number of visitors that arrive on each type of visiting aircraft was also provided by the study airports. Using this information, bottom-up estimates of annual visiting (transient) aircraft were developed.

For the top-down approach to estimate visiting general aviation aircraft, information from the Aircraft Owners and Pilots Association (AOPA) was used. AOPA states that “on average” 30% of an airport’s total annual itinerant arrivals are visiting or transient aircraft. Annual general aviation itinerant arrivals for each airport were obtained from FAA’s 5010-1 Form. Transient (visiting) arrivals are only a portion of each airport’s total annual general aviation itinerant arrivals. The other portion of each airport’s itinerant arrivals is attributed to aircraft based at the airport. Transient or visiting aircraft arrivals should always be lower than total annual itinerant arrivals. Additional investigation was needed in cases where an airport estimated their transient or visiting arrivals to be higher than their total annual itinerant arrivals. This additional investigation was carried out with individual airports and with OAC staff.

The results of the bottom-up and top-down approaches were compared and discussed with OAC. Ultimately, a preferred estimate of total annual visiting general aviation aircraft for each airport was selected through this process. These estimates were shared with each of the Oklahoma airports before they were used to estimate annual economic activities associated with general aviation visitors.

Final estimates of annual visiting aircraft arrivals were used to develop an estimate of annual general aviation visitors for each airport. This was accomplished by first applying airport specific estimates for their typical mix of visiting aircraft. Then, airport estimates for the number of visitors (pilots/passengers) per arrival, by aircraft type, were applied to the resultant visiting fleet. This process led to final estimates for each airport’s annual general aviation visitors.



**Table 4 – Estimates of General Aviation Visitors** provides the following for each public airport: an estimate of total annual visiting general aviation aircraft arrivals and the estimate of total annual general aviation visitors. As **Table 4** shows, the total number of annual visitors estimated to arrive in Oklahoma on general aviation aircraft is over 439,600.

TABLE 4 – ESTIMATES OF GENERAL AVIATION VISITORS

FAA ID	Airport Name	Associated City	Annual Visiting/Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors
LAW	Lawton-Ft. Sill Regional Airport	Lawton	5,475	14,619
OKC	Will Rogers World Airport	Oklahoma City	12,740	55,800
SWO	Stillwater Regional Airport	Stillwater	6,935	20,075
TUL	Tulsa International Airport	Tulsa	18,200	67,158
ADH	Ada Municipal Airport	Ada	2,392	6,570
AXS	Altus/Quartz Mountain Regional Airport	Altus	1,664	4,709
AVK	Alva Regional Airport	Alva	949	2,555
F68	Anadarko Municipal Airport	Anadarko	78	164
80F	Antlers Municipal Airport	Antlers	156	343
1F0	Ardmore Downtown Executive	Ardmore	1,092	2,574
ADM	Ardmore Municipal	Ardmore	3,833	10,235
AQR	Atoka Municipal Airport	Atoka	185	391
BVO	Bartlesville Municipal Airport	Bartlesville	2,738	8,030
K44	Beaver Municipal Airport	Beaver	52	122
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	375	365
17K	Boise City Airport	Boise City	156	363
3F7	Jones Memorial Airport	Bristow	572	1,288
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	114	114
BFK	Buffalo Municipal Airport	Buffalo	16	34
91F	Carlton Landing Field	Canadian	252	120
86F	Carnegie Municipal Airport	Carnegie	52	109
CQB	Chandler Regional Airport	Chandler	572	1,395
92F	Chattanooga Sky Harbor Airport	Chattanooga	208	437
405	Cherokee Municipal Airport	Cherokee	156	328
93F	Mignon Laird Municipal Airport	Cheyenne	156	312
CHK	Chickasha Municipal Airport	Chickasha	1,092	2,425
GCM	Claremore Regional Airport	Claremore	1,664	3,960
95F	Cleveland Municipal Airport	Cleveland	78	186
CLK	Clinton Regional Airport	Clinton	208	416

TABLE 4 – ESTIMATES OF GENERAL AVIATION VISITORS

FAA ID	Airport Name	Associated City	Annual Visiting/Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors
CSM	Clinton-Sherman Airport	Clinton	936	2,050
44M	Tenkiller Lake Airpark	Cookson	156	328
F36	Cordell Municipal Airport	Cordell	200	100
CUH	Cushing Municipal Airport	Cushing	2,800	6,860
DUC	Halliburton Field Airport	Duncan	1,456	4,384
DUA	Durant Regional Airport - Eaker Field	Durant	3,724	10,037
RQO	El Reno Regional Airport	El Reno	1,456	2,941
ELK	Elk City Regional Business Airport	Elk City	1,095	2,920
WDG	Enid Woodring Regional Airport	Enid	3,120	9,672
F08	Eufaula Municipal Airport	Eufaula	325	150
0F7	Fountainhead Lodge Airpark	Eufaula	16	34
6K4	Fairview Municipal Airport	Fairview	572	1,262
FDR	Frederick Regional Airport	Frederick	730	1,460
GAG	Gage Airport	Gage	50	25
1K4	David Jay Perry Airport	Goldsby	728	1,551
101	Grandfield Municipal Airport	Grandfield	110	231
GMJ	Grove Regional Airport	Grove	1,092	3,622
GOK	Guthrie-Edmond Regional Airport	Guthrie	3,120	7,206
GUY	Guymon Municipal Airport	Guymon	1,664	3,797
F32	Healdton Municipal Airport	Healdton	39	37
F10	Henryetta Municipal Airport	Henryetta	51	129
208	Hinton Municipal Airport	Hinton	208	488
HBR	Hobart Regional Airport	Hobart	364	995
F99	Holdenville Municipal Airport	Holdenville	104	100
O35	Hollis Municipal Airport	Hollis	104	208
H92	Hominy Municipal Airport	Hominy	52	109
O45	Hooker Municipal Airport	Hooker	104	208
HHW	Stan Stamper Municipal Airport	Hugo	364	889
404	McCurtain County Regional Airport	Idabel	572	1,527
1K8	South Grand Lake Regional Airport	Ketchum	1,092	2,731
F92	Kingfisher Airport	Kingfisher	364	764
F31	Lake Texoma State Park Airport	Kingston	52	109

TABLE 4 – ESTIMATES OF GENERAL AVIATION VISITORS

FAA ID	Airport Name	Associated City	Annual Visiting/Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors
O51	Laverne Municipal Airport	Laverne	10	21
1K2	Lindsay Municipal Airport	Lindsay	200	100
1F4	Madill Municipal Airport	Madill	208	437
2K4	Scott Field Airport	Mangum	208	486
MLC	McAlester Regional Airport	McAlester	1,300	4,420
O53	Medford Municipal Airport	Medford	73	170
MIO	Miami Regional Airport	Miami	728	1,856
MDF	Mooreland Municipal Airport	Mooreland	104	218
MKO	Muskogee Davis Regional Airport	Muskogee	1,820	4,514
OUN	University of Oklahoma Westheimer Airport	Norman	7,280	19,441
O65	Christman Airfield	Okeene	73	170
F81	Okemah Flying Field Airport	Okemah	70	50
RCE	Clarence E Page Municipal Airport	Oklahoma City	1,278	2,920
PWA	Wiley Post Airport	Oklahoma City	16,016	46,446
OKM	Okmulgee Regional Airport	Okmulgee	1,820	4,114
PVJ	Pauls Valley Municipal Airport	Pauls Valley	728	1,748
H76	Pawhuska Municipal Airport	Pawhuska	156	328
F22	Perry Municipal Airport	Perry	728	1,637
PNC	Ponca City Regional Airport	Ponca City	3,120	7,364
RKR	Robert S Kerr Airport	Poteau	728	1,817
O47	Prague Municipal Airport	Prague	364	728
H71	Mid-America Industrial Airport	Pryor	730	1,460
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	208	437
JSV	Sallisaw Municipal Airport	Sallisaw	364	891
OWP	William R. Pogue Municipal Airport	Sand Springs	2,184	4,543
3O4	Sayre Municipal Airport	Sayre	52	109
SRE	Seminole Municipal Airport	Seminole	728	1,784
SNL	Shawnee Regional Airport	Shawnee	1,300	3,120
2F6	Skiatook Municipal Airport	Skiatook	750	365
GZL	Stigler Regional Airport	Stigler	364	946
SUD	Stroud Municipal Airport	Stroud	78	164
F30	Sulphur Municipal Airport	Sulphur	52	109

TABLE 4 – ESTIMATES OF GENERAL AVIATION VISITORS

FAA ID	Airport Name	Associated City	Annual Visiting/Transient General Aviation Aircraft Arrivals	Estimated General Aviation Visitors
TQH	Tahlequah Municipal Airport	Tahlequah	1,092	2,184
6F1	Talihina Municipal Airport	Talihina	75	50
K49	Texhoma Municipal Airport	Texhoma	156	50
104	Thomas Municipal Airport	Thomas	572	1,201
108	Tipton Municipal Airport	Tipton	175	100
0F9	Tishomingo Airpark	Tishomingo	16	34
RVS	Richard Lloyd Jones Jr Airport	Tulsa	16,016	42,224
H04	Vinita Municipal Airport	Vinita	300	730
H68	Hefner-Easley Airport	Wagoner	156	328
3O5	Walters Municipal Airport	Walters	37	50
JWG	Watonga Regional Airport	Watonga	364	943
1K5	Waynoka Municipal Airport	Waynoka	37	75
OJA	Thomas P Stafford Airport	Weatherford	1,300	3,380
4F1	Westport Airport	Westport	92	193
H05	Wilburton Municipal Airport	Wilburton	24	24
WWR	West Woodward Airport	Woodward	1,092	3,013
Total Commercial Service Airports			43,350	157,652
Total General Aviation Airports			110,956	281,961
<b>Total All Airports</b>			<b>154,306</b>	<b>439,613</b>

Source: Airport Managers, OAC, AOPA

Along with final general aviation visitor estimates from **Table 4**, information from surveys (conducted for this study) on trip duration and spending per trip was used to estimate total annual general aviation spending for this impact category. In the case of some of the least active airports, direct visitor spending was not enough to produce measurable annual economic impact in this category. While direct spending associated with general aviation visitors may be reported, in some cases this spending was not significant enough to support a job or payroll associated with that job.

Airports and/or FBOs in Oklahoma assisted in the process to distribute surveys to general aviation visitors. General aviation visitors were asked to provide information on the purpose of their trip; the duration of their stay; and the amount of money that they spent for various categories such as lodging, food, retail, ground transportation, and entertainment.

Once direct annual visitor spending is calculated, information from the IMPLAN model (discussed in the next section) is used to determine the number of direct jobs and direct payroll that direct annual visitor economic activity supports. Direct employment and payroll supported by general aviation visitor spending in Oklahoma is primarily, but not exclusively, associated with off-airport establishments. For instance, spending by visitors

to Oklahoma arriving on general aviation aircraft helps to support some of the jobs associated with hotels and in restaurants in the state.

Research conducted for the OAC study showed that spending by visitors who arrive on general aviation aircraft varies and is most often correlated with the size and characteristics of the Oklahoma community they are visiting. For this analysis, survey responses from visitors arriving at airports serving non-urban areas, airports serving small urban areas, and airport serving large urban areas in Oklahoma were analyzed to develop three categories of general aviation visitor spending. General aviation visitor spending for each of the three categories considered the following:

- Non-Urban Areas:** In this category, 70% of the typical Oklahoma general aviation visitors stay only for the day and have very limited or no spending (other than perhaps for fuel which is considered in another economic impact category). For the 30% that do spend one or more nights, 50% are traveling for business and 50% are traveling for leisure or to visit friends and family. For visitors who do spend one or more nights in Oklahoma, typical spending per visitor per total trip ranged from \$155 to \$220.
- Small Urban Areas:** In this category, 50% of the typical Oklahoma general aviation visitors stay only for the day and have very limited or no spending. For the 50% of the visitors that do spend one or more nights, 70% are traveling for business and 30% are traveling for leisure or to visit friends and family. For visitors who do spend one or more nights in Oklahoma, typical spending per visitor per total trip ranged from \$233 to \$352.
- Large Urban Areas:** In this category, 44% of the typical Oklahoma general aviation visitors stay only for the day and have very limited or no spending. For the 56% that do spend one or more nights, 60% are traveling for business and 40% are traveling for leisure or to visit friends and family. For visitors who do spend one or more nights in Oklahoma, typical spending per visitor per total trip ranged from \$564 to \$831.

**Table 5 – General Aviation Visitor Direct Employment, Payroll, Spending, and Annual Economic Activity** provides information on direct economic activity from general aviation spending. As noted, the estimate of annual general aviation visitor spending was derived from surveys, interviews, and research conducted specifically for this study. Estimates of direct employment and payroll in this impact category were based on annual direct annual economic activity and were derived from ratios in the IMPLAN model.

TABLE 5 – GENERAL AVIATION VISITOR DIRECT EMPLOYMENT, PAYROLL, SPENDING, AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
LAW	Lawton-Ft. Sill Regional Airport	Lawton	79	\$1,755,469	\$4,896,207	\$6,651,676
OKC	Will Rogers World Airport	Oklahoma City	302	\$6,700,144	\$18,687,467	\$25,387,611
SWO	Stillwater Regional Airport	Stillwater	109	\$2,410,590	\$6,723,410	\$9,134,000
TUL	Tulsa International Airport	Tulsa	364	\$8,063,947	\$22,491,259	\$30,555,206
ADH	Ada Municipal Airport	Ada	13	\$275,119	\$739,253	\$1,014,372
AXS	Altus/Quartz Mountain Regional Airport	Altus	9	\$197,254	\$530,027	\$727,281
AVK	Alva Regional Airport	Alva	5	\$106,989	\$287,482	\$394,471
F68	Anadarko Municipal Airport	Anadarko	0	\$3,263	\$8,412	\$11,675
80F	Antlers Municipal Airport	Antlers	0.5	\$6,791	\$30,008	\$36,799

TABLE 5 – GENERAL AVIATION VISITOR DIRECT EMPLOYMENT, PAYROLL, SPENDING, AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
1F0	Ardmore Downtown Executive	Ardmore	5	\$107,752	\$293,283	\$401,035
ADM	Ardmore Municipal	Ardmore	55	\$1,228,946	\$3,455,793	\$4,684,739
AQR	Atoka Municipal Airport	Atoka	0.5	\$7,716	\$19,889	\$27,605
BVO	Bartlesville Municipal Airport	Bartlesville	15	\$336,239	\$903,484	\$1,239,723
K44	Beaver Municipal Airport	Beaver	0	\$2,466	\$6,359	\$8,825
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	1	\$15,325	\$41,179	\$56,504
17K	Boise City Airport	Boise City	1	\$21,550	\$49,150	\$70,700
3F7	Jones Memorial Airport	Bristow	1	\$25,273	\$65,142	\$90,415
90F	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	Broken Bow	0	\$2,229	\$5,747	\$7,976
BFK	Buffalo Municipal Airport	Buffalo	0	\$659	\$1,696	\$2,355
91F	Carlton Landing Field	Canadian	0	\$2,355	\$6,074	\$8,429
86F	Carnegie Municipal Airport	Carnegie	0	\$2,206	\$5,689	\$7,895
CQB	Chandler Regional Airport	Chandler	3	\$58,428	\$156,997	\$215,425
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	\$8,628	\$28,491	\$37,119
405	Cherokee Municipal Airport	Cherokee	0.5	\$6,423	\$16,552	\$22,975
93F	Mignon Laird Municipal Airport	Cheyenne	0	\$6,144	\$23,340	\$29,484
CHK	Chickasha Municipal Airport	Chickasha	5	\$101,563	\$272,901	\$374,464
GCM	Claremore Regional Airport	Claremore	22	\$475,584	\$1,330,216	\$1,805,800
95F	Cleveland Municipal Airport	Cleveland	0	\$3,662	\$9,438	\$13,100
CLK	Clinton Regional Airport	Clinton	1	\$107,752	\$283,949	\$391,701
CSM	Clinton-Sherman Airport	Clinton	5	\$21,550	\$45,391	\$66,941
44M	Tenkiller Lake Airpark	Cookson	0.5	\$6,423	\$16,552	\$22,975
F36	Cordell Municipal Airport	Cordell	0	\$1,963	\$6,312	\$8,275
CUH	Cushing Municipal Airport	Cushing	13	\$287,181	\$771,661	\$1,058,842
DUC	Halliburton Field Airport	Duncan	8	\$183,541	\$499,426	\$682,967
DUA	Durant Regional Airport - Eaker Field	Durant	20	\$431,009	\$1,160,575	\$1,591,584
RQO	El Reno Regional Airport	El Reno	6	\$123,151	\$337,160	\$460,311
ELK	Elk City Regional Business Airport	Elk City	6	\$122,241	\$332,211	\$454,452
WDG	Enid Woodring Regional Airport	Enid	53	\$1,161,463	\$3,239,459	\$4,400,922
F08	Eufaula Municipal Airport	Eufaula	0	\$2,997	\$35,414	\$38,411
0F7	Fountainhead Lodge Airpark	Eufaula	0	\$659	\$1,696	\$2,355

TABLE 5 – GENERAL AVIATION VISITOR DIRECT EMPLOYMENT, PAYROLL, SPENDING, AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
6K4	Fairview Municipal Airport	Fairview	2	\$52,821	\$141,933	\$194,754
FDR	Frederick Regional Airport	Frederick	1.5	\$28,669	\$73,896	\$102,565
GAG	Gage Airport	Gage	0	\$520	\$3,215	\$3,735
1K4	David Jay Perry Airport	Goldsby	1	\$30,493	\$78,602	\$109,095
1O1	Grandfield Municipal Airport	Grandfield	0	\$4,574	\$11,791	\$16,365
GMJ	Grove Regional Airport	Grove	7	\$151,619	\$413,650	\$565,269
GOK	Guthrie-Edmond Regional Airport	Guthrie	39	\$865,236	\$2,420,745	\$3,285,981
GUY	Guymon Municipal Airport	Guymon	22	\$474,110	\$1,290,818	\$1,764,928
F32	Healdton Municipal Airport	Healdton	0	\$774	\$1,996	\$2,770
F10	Henryetta Municipal Airport	Henryetta	0	\$2,599	\$29,199	\$31,798
2O8	Hinton Municipal Airport	Hinton	0.5	\$9,564	\$27,152	\$36,716
HBR	Hobart Regional Airport	Hobart	2	\$41,683	\$127,001	\$168,684
F99	Holdenville Municipal Airport	Holdenville	0	\$1,963	\$5,062	\$7,025
O35	Hollis Municipal Airport	Hollis	0	\$4,066	\$10,479	\$14,545
H92	Hominy Municipal Airport	Hominy	0	\$2,206	\$5,689	\$7,895
O45	Hooker Municipal Airport	Hooker	0	\$4,066	\$10,479	\$14,545
HHW	Stan Stamper Municipal Airport	Hugo	2	\$43,101	\$94,580	\$137,681
4O4	McCurtain County Regional Airport	Idabel	5	\$107,752	\$241,807	\$349,559
1K8	South Grand Lake Regional Airport	Ketchum	5	\$114,376	\$311,082	\$425,458
F92	Kingfisher Airport	Kingfisher	0.5	\$15,044	\$45,030	\$60,074
F31	Lake Texoma State Park Airport	Kingston	0	\$2,206	\$5,689	\$7,895
O51	Laverne Municipal Airport	Laverne	0	\$398	\$1,027	\$1,425
1K2	Lindsay Municipal Airport	Lindsay	0	\$1,963	\$5,062	\$7,025
1F4	Madill Municipal Airport	Madill	0.5	\$8,628	\$22,242	\$30,870
2K4	Scott Field Airport	Mangum	0.5	\$9,553	\$24,622	\$34,175
MLC	McAlester Regional Airport	McAlester	24	\$530,712	\$1,482,084	\$2,012,796
O53	Medford Municipal Airport	Medford	1	\$21,550	\$53,073	\$74,623
MIO	Miami Regional Airport	Miami	4	\$77,685	\$214,990	\$292,675
MDF	Mooreland Municipal Airport	Mooreland	0	\$4,314	\$11,121	\$15,435
MKO	Muskogee Davis Regional Airport	Muskogee	25	\$542,005	\$1,545,455	\$2,087,460
OUN	University of Oklahoma Westheimer Airport	Norman	105	\$2,334,332	\$6,510,720	\$8,845,052
O65	Christman Airfield	Okeene	0	\$3,390	\$8,740	\$12,130

TABLE 5 – GENERAL AVIATION VISITOR DIRECT EMPLOYMENT, PAYROLL, SPENDING, AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
F81	Okemah Flying Field Airport	Okemah	0	\$1,034	\$9,120	\$10,154
RCE	Clarence E Page Municipal Airport	Oklahoma City	6	\$122,241	\$328,461	\$450,702
PWA	Wiley Post Airport	Oklahoma City	252	\$5,576,952	\$15,562,242	\$21,139,194
OKM	Okmulgee Regional Airport	Okmulgee	8	\$172,222	\$469,011	\$641,233
PVJ	Pauls Valley Municipal Airport	Pauls Valley	4	\$86,202	\$221,074	\$307,276
H76	Pawhuska Municipal Airport	Pawhuska	0.5	\$6,423	\$16,552	\$22,975
F22	Perry Municipal Airport	Perry	3	\$68,581	\$218,026	\$286,607
PNC	Ponca City Regional Airport	Ponca City	14	\$308,292	\$828,389	\$1,136,681
RKR	Robert S Kerr Airport	Poteau	4	\$76,117	\$213,901	\$290,018
O47	Prague Municipal Airport	Prague	1	\$14,277	\$39,299	\$53,576
H71	Mid-America Industrial Airport	Pryor	3	\$61,120	\$164,231	\$225,351
303	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	0.5	\$8,628	\$22,242	\$30,870
JSV	Sallisaw Municipal Airport	Sallisaw	2	\$37,348	\$100,356	\$137,704
OWP	William R. Pogue Municipal Airport	Sand Springs	9	\$190,239	\$511,175	\$701,414
304	Sayre Municipal Airport	Sayre	0	\$2,206	\$5,689	\$7,895
SRE	Seminole Municipal Airport	Seminole	3.5	\$74,697	\$200,711	\$275,408
SNL	Shawnee Regional Airport	Shawnee	20	\$431,009	\$1,183,470	\$1,614,479
2F6	Skiatook Municipal Airport	Skiatook	1	\$15,325	\$41,179	\$56,504
GZL	Stigler Regional Airport	Stigler	4	\$86,202	\$179,810	\$266,012
SUD	Stroud Municipal Airport	Stroud	0	\$3,263	\$8,412	\$11,675
F30	Sulphur Municipal Airport	Sulphur	0	\$2,206	\$5,689	\$7,895
TQH	Tahlequah Municipal Airport	Tahlequah	4	\$91,442	\$245,706	\$337,148
6F1	Talihina Municipal Airport	Talihina	0	\$1,034	\$2,666	\$3,700
K49	Texhoma Municipal Airport	Texhoma	0	\$1,034	\$8,915	\$9,949
104	Thomas Municipal Airport	Thomas	1	\$23,569	\$60,751	\$84,320
108	Tipton Municipal Airport	Tipton	0	\$1,963	\$5,062	\$7,025
0F9	Tishomingo Airpark	Tishomingo	0	\$659	\$1,696	\$2,355
RVS	Richard Lloyd Jones Jr Airport	Tulsa	229	\$5,081,006	\$14,129,949	\$19,210,955
H04	Vinita Municipal Airport	Vinita	1	\$14,394	\$43,325	\$57,719
H68	Hefner-Easley Airport	Wagoner	0.5	\$6,423	\$16,552	\$22,975
305	Walters Municipal Airport	Walters	0	\$1,034	\$2,666	\$3,700



TABLE 5 – GENERAL AVIATION VISITOR DIRECT EMPLOYMENT, PAYROLL, SPENDING, AND ANNUAL ECONOMIC ACTIVITY

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
JWG	Watonga Regional Airport	Watonga	1	\$18,574	\$47,876	\$66,450
1K5	Waynoka Municipal Airport	Waynoka	0	\$1,553	\$4,007	\$5,560
OJA	Thomas P Stafford Airport	Weatherford	7	\$141,497	\$386,455	\$527,952
4F1	Westport Airport	Westport	0	\$3,795	\$9,781	\$13,576
H05	Wilburton Municipal Airport	Wilburton	0	\$514	\$1,327	\$1,841
WWR	West Woodward Airport	Woodward	10	\$305,777	\$161,297	\$467,074
Total Commercial Service Airports			854	\$18,930,150	\$52,798,343	\$71,728,493
Total General Aviation Airports			1,086	\$23,983,319	\$65,702,508	\$89,685,827
<b>Total All Airports</b>			<b>1,940</b>	<b>\$42,913,469</b>	<b>\$118,500,851</b>	<b>\$161,414,320</b>

Source: Visitor Surveys and IMPLAN

It is worth restating that some of the spending shown in **Table 5** for some airports results from activities associated with transient aerial applicators who use various airports in Oklahoma for extended periods of time. Specific economic impacts associated with based and transient aerial applicators that use or that are based at airports in Oklahoma are detailed in a subsequent section of this report.

For the annual economic activity reflected in **Table 5**, study surveys indicated that visitor expenditures were most often in five different categories. The estimated percent of spending by type for all visitors who arrive in Oklahoma on a general aviation plane follows:

- 21% of general aviation visitor spending is for ground transportation
- 27% of general aviation visitor spending is for food (including restaurants)
- 33% of general aviation visitor spending is for lodging/hotels
- 10% of general aviation visitor spending is for retail purchases
- 9% of general aviation visitor spending is for various types of entertainment (golf, hunting, fishing, sporting events, other)

### 3.3 Estimates of Direct Impacts for Commercial Visitors

Similar to spending related to visitors who arrive on general aviation aircraft, visitors to Oklahoma who arrive on scheduled commercial airline flights also have annual spending in the direct impact category. For this study, direct annual impacts related to commercial service visitors were estimated by first identifying each commercial airport's total annual 2016 commercial airline passenger enplanements. Each airport reports its annual enplanements to the FAA. In the case of Stillwater Regional Airport, commercial airline service started in August of 2016. Monthly enplanements, after the new service was started, were used to develop an annual enplanement estimate.

Data from the USDOT was examined to determine the portion of each airport's annual enplanements that are visiting in nature. **Table 6 – Visitors Arriving in Oklahoma on Commercial Airlines** provides information on annual airport enplanements and the portion of these enplanements that were assumed to be visitors, as

opposed to residents traveling on a commercial airline. As **Table 6** shows, the total number of visitors estimated to arrive annually on commercial airline aircraft is 1,441,276. It is important to note, this is not the total number of passengers who enplane a scheduled commercial airline flight at an Oklahoma airport, it is only the number of passenger enplanements that are visitors to Oklahoma.

Once each airport's annual commercial airline visitors were estimated, information collected from visitor surveys was used to develop estimates of average spending per visitor, per trip for each of Oklahoma's four commercial airports.

TABLE 6 – VISITORS ARRIVING IN OKLAHOMA ON COMMERCIAL AIRLINES

FAA ID	Airport Name	Associated City	Total Annual Enplanements	Total Annual Commercial Visitors	Percent of Enplanements that are Visitors
LAW	Lawton-Ft. Sill Regional Airport	Lawton	52,979	27,019	51%
OKC	Will Rogers World Airport	Oklahoma City	1,854,181	815,098	44%
SWO	Stillwater Regional Airport*	Stillwater	47,981	21,112	44%
TUL	Tulsa International Airport	Tulsa	1,365,895	578,047	42%
<b>Total Commercial Airports</b>			<b>3,321,036</b>	<b>1,441,276</b>	

\* Annual enplanements for Stillwater Regional Airport estimated based on enplanements for August 2016 – December 2016  
Source: FAA and USDOT

Beginning in September 2016 and extending through December 2016, passenger surveys were made available to enplaning commercial airline passengers at Oklahoma's commercial airports. Will Rogers World Airport provided a survey link when travelers logged on to use the airport's Wi-Fi. Tulsa International Airport used their airport volunteers to intercept visitors in the airport terminal to obtain responses in a face-to-face interview. Over 1,450 surveys were completed by commercial airline travelers. Other commercial airports also provided an online visitor survey option. The average length of stay and average spending per day was obtained from the survey responses. This information was used in this study to estimate annual commercial visitor spending.

Estimates of total annual commercial visitor spending by airport were developed. **Table 7 – Direct Impacts from Commercial Visitor Spending** presents annual direct spending in this category. Once direct spending was estimated, the IMPLAN model was used to estimate employment that is supported by this spending along with direct payroll supported by the direct employment. Direct economic activity, shown in **Table 7**, reflects a combination of both visitor spending and the employee payroll associated with that spending.

TABLE 7 – DIRECT IMPACTS FROM COMMERCIAL VISITOR SPENDING

FAA ID	Airport Name	Associated City	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
LAW	Lawton-Ft. Sill Regional Airport	Lawton	173	\$4,029,411	\$10,992,895	\$15,022,306
OKC	Will Rogers World Airport	Oklahoma City	8,428	\$196,529,302	\$537,018,114	\$733,547,416
SWO	Stillwater Regional Airport	Stillwater	151	\$3,520,844	\$9,605,529	\$13,126,373
TUL	Tulsa International Airport	Tulsa	7,003	\$157,474,090	\$467,221,048	\$624,695,138
<b>Total Commercial Airports</b>			<b>15,755</b>	<b>\$361,553,647</b>	<b>\$1,024,837,586</b>	<b>\$1,386,391,234</b>

Source: Study Passenger Surveys and IMPLAN

Commercial visitors to Oklahoma each spend on average \$962 per visitor per trip; it is important to remember this average reflects visitors who have much higher and much lower spending on their visit to the state. Survey data indicated that while not all, most all visitors who arrive in Oklahoma on a commercial airline flight spend at least one night in the state, many visitors spend multiple nights while on their trip.

For the annual economic activity reflected in **Table 7**, surveys conducted for this study indicated that visitor expenditures were in six different categories. The estimated percent of spending by type for all visitors who arrive in Oklahoma on a commercial flight is as follows:

- 17% of commercial visitor spending is for ground transportation
- 20% of commercial visitor spending is for food (including restaurants)
- 40% of commercial visitor spending is for lodging/hotels
- 10% of commercial visitor spending is for retail purchases
- 13% of commercial visitor spending is for various types of entertainment (golf, hunting, fishing, sporting events, other)
- Less than 1% of commercial visitor spending is for purchases in the “other” category

### 3.4 Summary of Total Direct Economic Impacts for Airports in Oklahoma

The preceding sections presented information on direct employment, payroll, spending, and annual economic activity (spending and payroll) for airport management, airport tenants, capital investment, general aviation visitor spending, and commercial visitor spending. In some cases, as a result of confidentiality, direct payroll information was not published.

**Table 8 – Summary of Total Statewide Airport Direct Economic Impact by Category** presents total direct economic impacts for employment, payroll, spending, and annual economic activity. These statewide direct impacts are summarized and presented for airport management, airport tenants, capital investment, general aviation visitor spending, and commercial visitor spending.

TABLE 8 – SUMMARY OF TOTAL STATEWIDE AIRPORT DIRECT ECONOMIC IMPACT BY CATEGORY

	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
Airport Management	517.0	\$21,868,296	\$46,188,833	\$68,057,129
Airport Tenants	21,708.5	\$1,539,132,059	\$2,574,422,605	\$4,113,554,664
Capital Investment	1,223.6	\$47,351,372	\$152,110,623	\$199,461,995
General Aviation Visitors	1,940.0	\$42,913,469	\$118,500,851	\$161,414,320
Commercial Visitors	15,754.5	\$361,553,647	\$1,024,837,586	\$1,386,391,233
<b>Total</b>	<b>41,143.6</b>	<b>\$2,012,818,843</b>	<b>\$3,916,060,498</b>	<b>\$5,928,879,341</b>

Source: OAC Survey Analysis

Direct impacts are typically the easiest to understand because direct impacts are related to activity at each airport that can be quantified or measured in some way. **Table 9 – Summary of Total Annual Direct Impacts for Oklahoma Airports** provides a summary of direct impacts by airport for employment, payroll, spending, and annual economic activity. This information is a sum of direct impacts previously presented for each airport for each of the five activity centers: airport management, airport tenants, capital investment, general aviation visitors, and, when applicable, commercial visitors.

TABLE 9 – SUMMARY OF TOTAL ANNUAL DIRECT IMPACTS FOR OKLAHOMA AIRPORTS

FAA ID	Airport Name	Associated City	Total Direct Employment	Total Direct Payroll	Total Direct Spending	Total Direct Annual Economic Activity
LAW	Lawton-Ft. Sill Regional Airport	Lawton	349.4	\$10,209,338	\$22,430,247	\$32,639,585
OKC	Will Rogers World Airport	Oklahoma City	18,409.9	\$957,760,541	\$1,398,412,907	\$2,356,173,448
SWO	Stillwater Regional Airport	Stillwater	420.5	\$15,095,865	\$25,770,092	\$40,865,957
TUL	Tulsa International Airport	Tulsa	18,368.6	\$881,621,538	\$2,225,535,741	\$3,107,157,279
ADH	Ada Municipal Airport	Ada	104.0	\$4,677,677	\$8,567,217	\$13,244,894
AXS	Altus/Quartz Mountain Regional Airport	Altus	46.5	\$1,898,638	\$4,595,055	\$6,493,694
AVK	Alva Regional Airport	Alva	39.0	\$1,384,578	\$2,672,045	\$4,056,623
F68	Anadarko Municipal Airport	Anadarko	3.0	\$80,849	\$319,687	\$400,535
80F	Antlers Municipal Airport	Antlers	2.5	\$47,323	\$164,122	\$211,445
1F0	Ardmore Downtown Executive	Ardmore	28.0	\$1,457,323	\$1,747,544	\$3,204,867
ADM	Ardmore Municipal	Ardmore	162.5	\$5,941,846	\$10,597,581	\$16,539,428
AQR	Atoka Municipal Airport	Atoka	3.5	\$122,154	\$192,656	\$314,809
BVO	Bartlesville Municipal Airport	Bartlesville	61.3	\$2,664,183	\$5,319,342	\$7,983,524
K44	Beaver Municipal Airport	Beaver	1.0	\$42,428	\$23,836	\$66,265
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	6.5	\$343,595	\$1,003,692	\$1,347,287
17K	Boise City Airport	Boise City	3.5	\$102,598	\$217,506	\$320,105
3F7	Jones Memorial Airport	Bristow	34.0	\$1,571,245	\$2,687,692	\$4,258,937
90F	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	Broken Bow	1.0	\$32,013	\$100,713	\$132,726
BFK	Buffalo Municipal Airport	Buffalo	1.5	\$43,987	\$116,652	\$160,639
91F	Carlton Landing Field	Canadian	2.5	\$76,951	\$229,477	\$306,429
86F	Carnegie Municipal Airport	Carnegie	2.0	\$63,416	\$137,370	\$200,786
CQB	Chandler Regional Airport	Chandler	6.5	\$214,968	\$779,215	\$994,183
92F	Chattanooga Sky Harbor Airport	Chattanooga	2.0	\$50,200	\$123,619	\$173,819
4O5	Cherokee Municipal Airport	Cherokee	2.0	\$52,051	\$134,397	\$186,448
93F	Mignon Laird Municipal Airport	Cheyenne	0.5	\$17,559	\$34,278	\$51,838
CHK	Chickasha Municipal Airport	Chickasha	28.5	\$1,241,383	\$1,366,421	\$2,607,804
GCM	Claremore Regional Airport	Claremore	55.5	\$2,049,793	\$3,050,460	\$5,100,253
95F	Cleveland Municipal Airport	Cleveland	5.0	\$422,347	\$692,233	\$1,114,580
CLK	Clinton Regional Airport	Clinton	19.5	\$726,069	\$1,083,125	\$1,809,194
CSM	Clinton-Sherman Airport	Clinton	23.5	\$961,677	\$1,745,468	\$2,707,146
44M	Tenkiller Lake Airpark	Cookson	1.0	\$16,923	\$34,051	\$50,975

TABLE 9 – SUMMARY OF TOTAL ANNUAL DIRECT IMPACTS FOR OKLAHOMA AIRPORTS

FAA ID	Airport Name	Associated City	Total Direct Employment	Total Direct Payroll	Total Direct Spending	Total Direct Annual Economic Activity
F36	Cordell Municipal Airport	Cordell	2.0	\$67,872	\$123,819	\$191,691
CUH	Cushing Municipal Airport	Cushing	39.8	\$1,629,726	\$1,646,381	\$3,276,107
DUC	Halliburton Field Airport	Duncan	26.5	\$1,173,372	\$1,532,112	\$2,705,484
DUA	Durant Regional Airport - Eaker Field	Durant	48.1	\$1,635,875	\$2,772,557	\$4,408,431
RQO	El Reno Regional Airport	El Reno	33.5	\$1,448,852	\$1,783,177	\$3,232,029
ELK	Elk City Regional Business Airport	Elk City	30.5	\$1,808,230	\$1,633,789	\$3,442,020
WDG	Enid Woodring Regional Airport	Enid	173.0	\$6,524,425	\$11,309,981	\$17,834,407
F08	Eufaula Municipal Airport	Eufaula	2.0	\$57,686	\$164,338	\$222,024
0F7	Fountainhead Lodge Airpark	Eufaula	0.5	\$11,159	\$19,196	\$30,355
6K4	Fairview Municipal Airport	Fairview	9.5	\$344,369	\$1,065,138	\$1,409,507
FDR	Frederick Regional Airport	Frederick	9.0	\$297,886	\$909,101	\$1,206,987
GAG	Gage Airport	Gage	1.5	\$49,088	\$112,247	\$161,335
1K4	David Jay Perry Airport	Goldsby	7.0	\$235,470	\$709,424	\$944,894
1O1	Grandfield Municipal Airport	Grandfield	3.5	\$162,049	\$591,547	\$753,596
GMJ	Grove Regional Airport	Grove	21.5	\$720,909	\$1,474,457	\$2,195,366
GOK	Guthrie-Edmond Regional Airport	Guthrie	111.0	\$4,398,587	\$7,478,702	\$11,877,288
GUY	Guymon Municipal Airport	Guymon	38.5	\$1,234,080	\$2,444,935	\$3,679,015
F32	Healdton Municipal Airport	Healdton	0.5	\$11,274	\$2,496	\$13,770
F10	Henryetta Municipal Airport	Henryetta	1.0	\$36,599	\$46,699	\$83,298
2O8	Hinton Municipal Airport	Hinton	3.0	\$87,268	\$220,824	\$308,091
HBR	Hobart Regional Airport	Hobart	8.0	\$288,430	\$514,523	\$802,953
F99	Holdenville Municipal Airport	Holdenville	4.0	\$182,893	\$230,266	\$413,159
O35	Hollis Municipal Airport	Hollis	7.5	\$354,201	\$321,707	\$675,907
H92	Hominy Municipal Airport	Hominy	1.0	\$22,160	\$37,253	\$59,413
O45	Hooker Municipal Airport	Hooker	4.5	\$177,909	\$420,203	\$598,112
HHW	Stan Stamper Municipal Airport	Hugo	18.0	\$866,165	\$883,243	\$1,749,408
4O4	McCurtain County Regional Airport	Idabel	11.5	\$348,756	\$855,286	\$1,204,043
1K8	South Grand Lake Regional Airport	Ketchum	12.0	\$416,827	\$892,961	\$1,309,788
F92	Kingfisher Airport	Kingfisher	7.5	\$255,467	\$594,741	\$850,208
F31	Lake Texoma State Park Airport	Kingston	0.5	\$12,706	\$23,189	\$35,895
O51	Laverne Municipal Airport	Laverne	2.5	\$45,898	\$318,527	\$364,425

TABLE 9 – SUMMARY OF TOTAL ANNUAL DIRECT IMPACTS FOR OKLAHOMA AIRPORTS

FAA ID	Airport Name	Associated City	Total Direct Employment	Total Direct Payroll	Total Direct Spending	Total Direct Annual Economic Activity
1K2	Lindsay Municipal Airport	Lindsay	1.5	\$55,328	\$156,578	\$211,906
1F4	Madill Municipal Airport	Madill	3.5	\$98,443	\$174,897	\$273,340
2K4	Scott Field Airport	Mangum	2.0	\$68,349	\$180,267	\$248,616
MLC	McAlester Regional Airport	McAlester	65.0	\$2,628,922	\$3,687,897	\$6,316,820
O53	Medford Municipal Airport	Medford	3.5	\$117,329	\$188,198	\$305,528
MIO	Miami Regional Airport	Miami	18.5	\$881,601	\$1,673,544	\$2,555,144
MDF	Mooreland Municipal Airport	Mooreland	0.5	\$22,772	\$81,935	\$104,707
MKO	Muskogee Davis Regional Airport	Muskogee	48.5	\$1,229,135	\$3,515,426	\$4,744,561
OUN	University of Oklahoma Westheimer Airport	Norman	236.5	\$9,152,901	\$12,237,178	\$21,390,079
O65	Christman Airfield	Okeene	9.0	\$411,348	\$454,661	\$866,009
F81	Okemah Flying Field Airport	Okemah	1.5	\$101,124	\$314,419	\$415,543
RCE	Clarence E Page Municipal Airport	Oklahoma City	58.0	\$2,198,930	\$3,854,025	\$6,052,956
PWA	Wiley Post Airport	Oklahoma City	874.5	\$40,424,638	\$60,209,543	\$100,634,181
OKM	Okmulgee Regional Airport	Okmulgee	87.5	\$3,766,694	\$4,526,877	\$8,293,571
PVJ	Pauls Valley Municipal Airport	Pauls Valley	17.0	\$722,778	\$2,288,024	\$3,010,802
H76	Pawhuska Municipal Airport	Pawhuska	2.5	\$78,160	\$118,654	\$196,815
F22	Perry Municipal Airport	Perry	15.0	\$875,196	\$1,556,001	\$2,431,198
PNC	Ponca City Regional Airport	Ponca City	34.5	\$2,475,393	\$3,241,128	\$5,716,522
RKR	Robert S Kerr Airport	Poteau	11.0	\$332,386	\$886,192	\$1,218,578
O47	Prague Municipal Airport	Prague	3.5	\$96,494	\$293,358	\$389,852
H71	Mid-America Industrial Airport	Pryor	16.0	\$680,570	\$1,147,661	\$1,828,232
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	4.0	\$118,467	\$347,362	\$465,829
JSV	Sallisaw Municipal Airport	Sallisaw	16.0	\$853,696	\$1,318,395	\$2,172,091
OWP	William R. Pogue Municipal Airport	Sand Springs	26.0	\$758,830	\$1,941,574	\$2,700,404
3O4	Sayre Municipal Airport	Sayre	2.5	\$72,452	\$157,419	\$229,871
SRE	Seminole Municipal Airport	Seminole	25.0	\$1,087,034	\$1,453,430	\$2,540,463
SNL	Shawnee Regional Airport	Shawnee	60.0	\$2,144,367	\$4,659,053	\$6,803,420
2F6	Skiatook Municipal Airport	Skiatook	8.0	\$315,837	\$549,562	\$865,398
GZL	Stigler Regional Airport	Stigler	7.5	\$176,577	\$443,930	\$620,506
SUD	Stroud Municipal Airport	Stroud	1.5	\$60,112	\$183,165	\$243,276
F30	Sulphur Municipal Airport	Sulphur	1.0	\$34,107	\$91,939	\$126,046

TABLE 9 – SUMMARY OF TOTAL ANNUAL DIRECT IMPACTS FOR OKLAHOMA AIRPORTS

FAA ID	Airport Name	Associated City	Total Direct Employment	Total Direct Payroll	Total Direct Spending	Total Direct Annual Economic Activity
TQH	Tahlequah Municipal Airport	Tahlequah	14.5	\$953,760	\$1,998,871	\$2,952,631
6F1	Talihina Municipal Airport	Talihina	1.5	\$20,344	\$54,708	\$75,051
K49	Texhoma Municipal Airport	Texhoma	2.5	\$101,534	\$104,015	\$205,549
1O4	Thomas Municipal Airport	Thomas	14.5	\$1,092,813	\$1,254,730	\$2,347,543
1O8	Tipton Municipal Airport	Tipton	0.5	\$12,463	\$10,512	\$22,975
0F9	Tishomingo Airpark	Tishomingo	1.5	\$62,438	\$169,173	\$231,611
RVS	Richard Lloyd Jones Jr Airport	Tulsa	545.0	\$20,008,508	\$34,463,588	\$54,472,096
H04	Vinita Municipal Airport	Vinita	3.0	\$86,357	\$224,539	\$310,897
H68	Hefner-Easley Airport	Wagoner	2.5	\$60,422	\$132,559	\$192,981
3O5	Walters Municipal Airport	Walters	2.5	\$119,817	\$201,097	\$320,914
JWG	Watonga Regional Airport	Watonga	8.5	\$310,659	\$452,532	\$763,191
1K5	Waynoka Municipal Airport	Waynoka	1.0	\$40,493	\$112,869	\$153,362
OJA	Thomas P Stafford Airport	Weatherford	26.5	\$1,212,690	\$2,480,330	\$3,693,020
4F1	Westport Airport	Westport	0.5	\$14,295	\$27,281	\$41,576
H05	Wilburton Municipal Airport	Wilburton	1.5	\$61,883	\$173,137	\$235,021
WWR	West Woodward Airport	Woodward	23.0	\$723,152	\$1,251,002	\$1,974,154
Total Commercial Service Airports			37,548	\$1,864,687,282	\$3,672,148,988	\$5,536,836,269
Total General Aviation Airports			3,595	\$148,131,560	\$243,911,511	\$392,043,071
<b>Total All Airports</b>			<b>41,144</b>	<b>\$2,012,818,842</b>	<b>\$3,916,060,499</b>	<b>\$5,928,879,341</b>

Source: Oklahoma Airport Managers and Tenants, Manta, Dun & Bradstreet, OAC, Oklahoma Department of Commerce, FAA, Airport Surveys, and IMPLAN

## 4.0 ESTIMATES OF INDIRECT/INDUCED ANNUAL ECONOMIC IMPACTS FOR OKLAHOMA AIRPORTS

### 4.1 Discussion and Measurement of Indirect/Induced Economic Impacts

Many sectors of Oklahoma’s economy are linked, some “directly” and others “indirectly.” Preceding sections of this report discussed direct impacts for airport management, airport tenants, capital investment, and air visitor spending. This section discusses indirect/induced economic impacts for Oklahoma airports. While some sectors of the economy considered in this analysis are linked directly, many are linked indirectly.

As discussed, when visitors arrive in Oklahoma by air, they spend money on rental cars, hotels, food, entertainment, retail, and sometimes other items. These direct expenditures also support direct employment and payroll. As an example of how indirect/induced economic impacts are created, an Oklahoma hotel, supported in part by air visitor spending, needs to pay for utilities, purchase linens, and buy new carpeting. In turn, the suppliers of the utilities, linen, and carpet also buy inputs, make payments for salaries, and generate

additional economic impacts. The indirect/induced impacts associated with the hotel's operation are examples of how direct impacts associated with airports generate additional indirect/induced impacts based on sector specific multipliers. In the economic modeling process, direct impacts in one sector lead to additional indirect/induced impacts in other sectors of the economy.

In this example, the hotel also paid salaries to their employees. In turn, these employees generate their own indirect/induced or multiplier impacts. For example, a hotel employee may use part of his/her income to take his/her family to dinner. Part of this expenditure becomes income to the waiter; he then spends some of his income at the dry cleaners and part of this expenditure is then used by the owners of the dry-cleaning business to buy materials to renovate their house. Indirect/induced or multiplier impacts continue in the economy being recycled until the impact diminishes to zero.

Indirect/induced or multiplier impacts are not the same for all economies. In the economic modeling process, indirect/induced impacts represent or measure opportunities for businesses and individuals to purchase the goods and services they need in their local or state economy. The larger and more developed the economy of the area being studied, the greater the chance for purchasing a high percentage of what is needed in the local or state economy. For small cities and rural areas, the opportunity to purchase needed goods and services locally is not as great. However, the business or individual may still be able to purchase what they need within the state, in this case Oklahoma. Indirect and induced impacts typically take place in different sectors of the state's economy. Indirect impacts are typically associated with industrial, distribution, professional services, and the utility sectors of the economy. Induced impacts are typically associated with the retail and service sectors of the economy.

For this study, each airport's total impact (direct plus indirect/induced) on the state's economy was estimated. For airports located in less developed areas of Oklahoma, the total economic impact of the airport on the local economy is less than the airport's total annual economic impact on the state economy. This difference reflects that while goods and services may not be able to be purchased locally, the goods and services may still be purchased in the state, resulting in a positive economic benefit to Oklahoma's statewide economy.

All indirect/induced and total annual economic impacts discussed in this report were derived from a statewide, Oklahoma-specific model. To estimate statewide economic impacts for each public airport, a series of models were prepared by the Oklahoma Department of Commerce. The primary source of data for all models came from IMPLAN, a proprietary suite of models that has been offered for several decades by a North Carolina-based privately-owned company. The most current version of IMPLAN, with information that is specific to Oklahoma, was used in this analysis.

While there are a number of models that can be used to support economic impact analysis, most are maintained by the U.S. Department of Commerce/Bureau of Economic Analysis. The data (population, employment, income, and other factors), upon which government maintained input/Economic Activity models are based, tends to be less current than the data in IMPLAN. Data in the IMPLAN model is more current because it is maintained by a private-sector firm.

IMPLAN is an acronym for **IM**portant analysis for **PLAN**ning; the model was developed more than 35 years ago and is approved by FAA to estimate aviation related economic impacts. IMPLAN is a general input/Economic Activity model that is comprised of statewide and regional data sets. IMPLAN provides a system to estimate the interdependency between economic sectors, households, and government in a geographically defined region, using counties as the building blocks for the analysis. One of the most powerful aspects of IMPLAN is that the data sources behind the model are continually improved and updated. Rather than extrapolating regional data from national averages, IMPLAN measures economic impacts from data that characterizes actual local economies.



IMPLAN tracks all the available industry groups in every level of the regional data. This permits detailed impact breakdowns and helps insure accuracy of inter-industry relationships. Some of the data sets used to support the modeling completed in this economic impact study for the Oklahoma airports include:

- U.S. Bureau of Labor Statistics (BLS) Covered Employment and Wages (CEW) program
- U.S. Bureau of Economic Analysis (BEA) Regional Economic Information System (REA) program
- U.S. Bureau of Economic Analysis Benchmark I/O Accounts of the United States
- BEA Economic Activity estimates
- BLS Consumer Expenditure Survey
- U.S. Census Bureau County Business Patterns (CBP) program
- U.S. Census Bureau Decennial Census and Population Surveys
- U.S. Census Bureau Economic Censuses and Surveys
- U.S. Department of Agriculture Census

An input/Economic Activity model estimates additional indirect/induced impacts that result from all direct impacts related to employment, payroll, and spending. Indirect/induced impacts are estimated through the use of multipliers. Multipliers vary by direct impact category, they can vary even within the same category, and they vary geographically through the state.

For example, if an airport has 10 direct jobs in the airport tenant category and the model shows that these 10 direct jobs support a total of 15 jobs within the state, the five additional jobs are indirect/induced jobs. The IMPLAN multiplier in this category, for this example, is 1.5 (10 direct jobs x 1.5 = 15 total jobs [five indirect/induced jobs]). The interpretation in this category is that each direct job supports 1.5 total jobs in the state's economy. For Oklahoma's statewide aviation and aerospace economic impact study, the focus was on direct impacts, followed up by a conservative approach to estimate indirect/induced impacts.

There are hundreds of multipliers in the IMPLAN model that were used to estimate indirect/induced economic impacts for this analysis. Within categories such as visitor spending and capital spending, there are different multipliers. For instance, in the visitor spending category, there is a higher economic return to the state economy for money spent for hotels, as opposed to retail. Oklahoma hotels are likely purchasing a high percentage of the goods and services that they need to operate within the state. On the other hand, retail items purchased by visitors to Oklahoma are most likely not made in Oklahoma and, often times, not even in the United States. Therefore, indirect/induced impacts are higher for spending on hotels than on retail spending.

In the process to estimate indirect/induced economic impacts associated with visitor spending, separate model entries are made for hotels, food, retail, entertainment, and local transportation so that cumulative indirect/induced impacts are more accurately reflected. Direct economic activity in the capital investment category was also segmented to better reflect economic activity within the state. As another example, spending for equipment has a lower economic return than spending for runway paving.

The remaining portions of this section present indirect/induced economic impacts estimated using the IMPLAN model. Since total annual economic impacts in each category are a sum of direct and indirect/induced impacts (related to the multiplier effect), this section also presents total annual economic impacts for all airports as these impacts relate to airport management, airport tenants, capital investment, general aviation visitor spending, and commercial visitor spending.

## 4.2 Indirect/Induced and Total Economic Impacts from Airport Management

Direct economic impacts for the airport management category (employment, payroll, spending, and annual economic activity) were obtained directly from each Oklahoma airport. Direct economic impacts for airport management were previously presented in **Table 1**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's airport management related impacts that are indirect/induced (multiplier) impacts.

For the airport management category, **Table 10 – Direct, Indirect/Induced, and Total Economic Impact from Airport Management** presents each airport's direct, indirect/induced, and total annual economic impacts for employment, payroll, spending, and annual economic activity. In this and other tables, annual economic activity is the sum of spending and payroll.

TABLE 10 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACT FROM AIRPORT MANAGEMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
LAW	Lawton-Ft. Sill Regional Airport	Lawton	9	4	13	\$310,144	\$187,598	\$497,742	\$521,528	\$651,771	\$1,173,299	\$831,672	\$839,369	\$1,671,041
OKC	Will Rogers World Airport	Oklahoma City	141	109	250	\$7,097,934	\$5,877,911	\$12,975,845	\$19,083,018	\$20,627,636	\$39,710,654	\$26,180,952	\$26,505,547	\$52,686,499
SWO	Stillwater Regional Airport	Stillwater	14	6	20	\$390,000	\$119,329	\$509,330	\$921,716	\$886,449	\$1,808,165	\$1,311,716	\$1,005,778	\$2,317,494
TUL	Tulsa International Airport	Tulsa	133	79	212	\$6,899,840	\$4,104,016	\$11,003,856	\$11,288,960	\$14,249,513	\$25,538,473	\$18,188,800	\$18,353,529	\$36,542,329
ADH	Ada Municipal Airport	Ada	2.0	1.0	3.0	\$127,000	\$47,287	\$174,287	\$80,350	\$63,961	\$144,311	\$207,350	\$111,248	\$318,598
AXS	Altus/Quartz Mountain Regional Airport	Altus	3.0	2.0	5.0	\$113,000	\$118,229	\$231,229	\$415,000	\$358,134	\$773,134	\$528,000	\$476,362	\$1,004,363
AVK	Alva Regional Airport	Alva	4.0	2.0	6.0	\$115,534	\$98,032	\$213,567	\$321,248	\$344,254	\$665,502	\$436,782	\$442,286	\$879,069
F68	Anadarko Municipal Airport	Anadarko	1.0	0.5	1.5	\$19,500	\$18,061	\$37,561	\$61,050	\$63,561	\$124,611	\$80,550	\$81,622	\$162,172
80F	Antlers Municipal Airport	Antlers	1.0	0.5	1.5	\$7,500	\$7,948	\$15,449	\$28,000	\$28,058	\$56,058	\$35,500	\$36,006	\$71,507
1F0	Ardmore Downtown Executive	Ardmore	1.5	1.5	3.0	\$90,000	\$59,412	\$149,412	\$173,775	\$207,062	\$380,837	\$263,775	\$266,474	\$530,249
ADM	Ardmore Municipal	Ardmore	4.0	3.0	7.0	\$117,000	\$77,235	\$194,235	\$1,200,000	\$973,662	\$2,173,662	\$1,317,000	\$1,050,897	\$2,367,897
AQR	Atoka Municipal Airport	Atoka	2.0	0.5	2.5	\$67,495	\$40,533	\$108,029	\$21,965	\$19,969	\$41,934	\$89,460	\$60,502	\$149,962
BVO	Bartlesville Municipal Airport	Bartlesville	12.0	8.0	20.0	\$387,500	\$222,948	\$610,447	\$600,000	\$727,800	\$1,327,800	\$987,500	\$950,748	\$1,938,247
K44	Beaver Municipal Airport	Beaver	1.0	0.5	1.5	\$36,700	\$10,069	\$46,768	\$7,000	\$7,515	\$14,515	\$43,700	\$17,583	\$61,283
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	2.0	1.0	3.0	\$42,000	\$31,030	\$73,029	\$96,000	\$102,179	\$198,179	\$138,000	\$133,209	\$271,208
17K	Boise City Airport	Boise City	0.5	0.5	1.0	\$10,500	\$4,287	\$14,787	\$8,346	\$5,531	\$13,877	\$18,846	\$9,818	\$28,664
3F7	Jones Memorial Airport	Bristow	1.5	0.5	2.0	\$112,600	\$31,076	\$143,676	\$22,300	\$23,613	\$45,913	\$134,900	\$54,690	\$189,589
90F	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	Broken Bow	1.0	0.5	1.5	\$21,000	\$19,672	\$40,672	\$66,750	\$69,251	\$136,001	\$87,750	\$88,923	\$176,673
BFK	Buffalo Municipal Airport	Buffalo	0.5	0.5	1.0	\$10,500	\$4,543	\$15,043	\$9,500	\$10,922	\$20,422	\$20,000	\$15,465	\$35,465
91F	Carlton Landing Field	Canadian	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
86F	Carnegie Municipal Airport	Carnegie	1.0	0.5	1.5	\$21,000	\$5,429	\$26,429	\$2,508	\$3,288	\$5,796	\$23,508	\$8,717	\$32,225
CQB	Chandler Regional Airport	Chandler	0.5	0.5	1.0	\$10,500	\$4,976	\$15,476	\$211,500	\$176,961	\$388,461	\$222,000	\$181,937	\$403,937
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
4O5	Cherokee Municipal Airport	Cherokee	0.5	0.5	1.0	\$10,500	\$3,544	\$14,045	\$5,000	\$4,177	\$9,177	\$15,500	\$7,721	\$23,222
93F	Mignon Laird Municipal Airport	Cheyenne	0.5	0.5	1.0	\$10,500	\$4,210	\$14,709	\$8,000	\$7,111	\$15,111	\$18,500	\$11,321	\$29,820
CHK	Chickasha Municipal Airport	Chickasha	3.0	1.0	4.0	\$89,949	\$60,780	\$150,729	\$180,000	\$211,998	\$391,998	\$269,949	\$272,778	\$542,727
GCM	Claremore Regional Airport	Claremore	4.0	1.0	5.0	\$86,000	\$41,907	\$127,907	\$99,000	\$144,280	\$243,280	\$185,000	\$186,187	\$371,187
95F	Cleveland Municipal Airport	Cleveland	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
CLK	Clinton Regional Airport	Clinton	5.0	4.0	9.0	\$316,143	\$240,483	\$556,626	\$290,000	\$423,633	\$713,633	\$606,143	\$664,117	\$1,270,260
CSM	Clinton-Sherman Airport	Clinton	8.0	3.0	11.0	\$310,319	\$136,310	\$446,629	\$753,793	\$841,914	\$1,595,707	\$1,064,112	\$978,224	\$2,042,336
44M	Tenkiller Lake Airpark	Cookson	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
F36	Cordell Municipal Airport	Cordell	1.0	0.5	1.5	\$34,000	\$11,216	\$45,216	\$15,000	\$15,502	\$30,502	\$49,000	\$26,717	\$75,718

TABLE 10 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACT FROM AIRPORT MANAGEMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
CUH	Cushing Municipal Airport	Cushing	2.0	0.5	2.5	\$24,000	\$9,782	\$33,783	\$19,000	\$16,685	\$35,685	\$43,000	\$26,467	\$69,467
DUC	Halliburton Field Airport	Duncan	2.0	1.0	3.0	\$110,000	\$35,305	\$145,305	\$44,100	\$47,097	\$91,197	\$154,100	\$82,402	\$236,502
DUA	Durant Regional Airport - Eaker Field	Durant	3.0	1.0	4.0	\$90,000	\$53,342	\$143,343	\$146,394	\$185,183	\$331,577	\$236,394	\$238,525	\$474,920
RQO	El Reno Regional Airport	El Reno	3.0	2.0	5.0	\$122,000	\$87,149	\$209,149	\$265,385	\$143,840	\$409,225	\$387,385	\$230,988	\$618,374
ELK	Elk City Regional Business Airport	Elk City	4.5	2.5	7.0	\$270,543	\$120,872	\$391,415	\$262,000	\$293,990	\$555,990	\$532,543	\$414,862	\$947,405
WDG	Enid Woodring Regional Airport	Enid	11.0	4.5	15.5	\$352,025	\$213,533	\$565,558	\$594,667	\$663,148	\$1,257,815	\$946,692	\$876,680	\$1,823,372
F08	Eufaula Municipal Airport	Eufaula	1.0	0.5	1.5	\$15,650	\$4,411	\$20,061	\$3,513	\$3,562	\$7,075	\$19,163	\$7,973	\$27,136
0F7	Fountainhead Lodge Airpark	Eufaula	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
6K4	Fairview Municipal Airport	Fairview	1.5	0.5	2.0	\$36,000	\$12,367	\$48,368	\$18,100	\$26,869	\$44,969	\$54,100	\$39,236	\$93,336
FDR	Frederick Regional Airport	Frederick	0.5	0.5	1.0	\$10,500	\$3,347	\$13,846	\$4,100	\$3,569	\$7,669	\$14,600	\$6,915	\$21,515
GAG	Gage Airport	Gage	0.5	0.5	1.0	\$15,000	\$3,747	\$18,747	\$1,200	\$1,561	\$2,761	\$16,200	\$5,307	\$21,508
1K4	David Jay Perry Airport	Goldsby	2.0	1.0	3.0	\$36,000	\$27,865	\$63,865	\$88,000	\$97,600	\$185,600	\$124,000	\$125,465	\$249,465
1O1	Grandfield Municipal Airport	Grandfield	0.5	0.5	1.0	\$15,510	\$5,817	\$21,327	\$10,000	\$7,938	\$17,938	\$25,510	\$13,755	\$39,265
GMJ	Grove Regional Airport	Grove	4.0	1.0	5.0	\$75,000	\$52,433	\$127,433	\$158,000	\$173,090	\$331,090	\$233,000	\$225,523	\$458,523
GOK	Guthrie-Edmond Regional Airport	Guthrie	4.0	1.0	5.0	\$110,443	\$72,413	\$182,857	\$211,019	\$252,315	\$463,334	\$321,462	\$324,728	\$646,191
GUY	Guymon Municipal Airport	Guymon	0.5	0.5	1.0	\$5,599	\$6,635	\$12,234	\$54,000	\$47,392	\$101,392	\$59,599	\$54,027	\$113,626
F32	Healdton Municipal Airport	Healdton	0.5	0.5	1.0	\$10,500	\$3,148	\$13,648	\$500	\$534	\$1,034	\$11,000	\$3,682	\$14,681
F10	Henryetta Municipal Airport	Henryetta	1.0	0.5	1.5	\$34,000	\$11,770	\$45,770	\$17,500	\$14,410	\$31,910	\$51,500	\$26,181	\$77,680
2O8	Hinton Municipal Airport	Hinton	1.5	0.5	2.0	\$24,000	\$20,259	\$44,259	\$21,150	\$25,088	\$46,238	\$45,150	\$45,347	\$90,497
HBR	Hobart Regional Airport	Hobart	1.0	1.0	2.0	\$22,506	\$30,858	\$53,364	\$115,630	\$109,452	\$225,082	\$138,136	\$140,310	\$278,446
F99	Holdenville Municipal Airport	Holdenville	0.5	0.5	1.0	\$10,500	\$4,166	\$14,666	\$7,800	\$6,070	\$13,870	\$18,300	\$10,236	\$28,536
O35	Hollis Municipal Airport	Hollis	0.5	0.5	1.0	\$10,500	\$3,544	\$14,045	\$5,000	\$4,177	\$9,177	\$15,500	\$7,721	\$23,222
H92	Hominy Municipal Airport	Hominy	0.5	0.5	1.0	\$10,500	\$3,053	\$13,552	\$2,777	\$2,674	\$5,451	\$13,277	\$5,726	\$19,003
O45	Hooker Municipal Airport	Hooker	1.5	0.5	2.0	\$40,000	\$17,042	\$57,042	\$35,000	\$26,700	\$61,700	\$75,000	\$43,742	\$118,742
HHW	Stan Stamper Municipal Airport	Hugo	1.5	0.5	2.0	\$33,000	\$31,738	\$64,738	\$108,611	\$92,257	\$200,868	\$141,611	\$123,995	\$265,606
4O4	McCurtain County Regional Airport	Idabel	2.5	1.0	3.5	\$72,219	\$32,562	\$104,780	\$71,275	\$79,455	\$150,730	\$143,494	\$112,017	\$255,510
1K8	South Grand Lake Regional Airport	Ketchum	0.5	0.5	1.0	\$10,500	\$6,951	\$17,451	\$108,000	\$94,257	\$202,257	\$118,500	\$101,208	\$219,708
F92	Kingfisher Airport	Kingfisher	1.0	0.5	1.5	\$16,000	\$5,930	\$21,930	\$10,000	\$7,975	\$17,975	\$26,000	\$13,905	\$39,905
F31	Lake Texoma State Park Airport	Kingston	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
O51	Laverne Municipal Airport	Laverne	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
1K2	Lindsay Municipal Airport	Lindsay	0.5	0.5	1.0	\$10,500	\$5,499	\$15,999	\$13,815	\$18,996	\$32,811	\$24,315	\$24,495	\$48,810
1F4	Madill Municipal Airport	Madill	1.0	0.5	1.5	\$15,000	\$5,255	\$20,254	\$8,000	\$6,547	\$14,547	\$23,000	\$11,802	\$34,801

TABLE 10 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACT FROM AIRPORT MANAGEMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
2K4	Scott Field Airport	Mangum	0.5	0.5	1.0	\$10,500	\$3,048	\$13,548	\$500	\$634	\$1,134	\$11,000	\$3,682	\$14,681
MLC	McAlester Regional Airport	McAlester	4.5	2.0	6.5	\$93,627	\$54,157	\$147,784	\$146,273	\$187,834	\$334,107	\$239,900	\$241,991	\$481,891
O53	Medford Municipal Airport	Medford	0.5	0.5	1.0	\$7,200	\$3,571	\$10,770	\$18,750	\$15,164	\$33,914	\$25,950	\$18,735	\$44,684
MIO	Miami Regional Airport	Miami	3.5	1.5	5.0	\$105,530	\$49,543	\$155,073	\$113,000	\$120,268	\$233,268	\$218,530	\$169,811	\$388,341
MDF	Mooreland Municipal Airport	Mooreland	0.5	0.5	1.0	\$10,500	\$12,469	\$22,968	\$45,250	\$44,115	\$89,365	\$55,750	\$56,584	\$112,333
MKO	Muskogee Davis Regional Airport	Muskogee	5.0	3.0	8.0	\$87,740	\$42,532	\$130,273	\$100,000	\$146,398	\$246,398	\$187,740	\$188,930	\$376,671
OUN	University of Oklahoma Westheimer Airport	Norman	10.5	9.5	20.0	\$482,400	\$519,876	\$1,002,276	\$1,840,000	\$1,835,862	\$3,675,862	\$2,322,400	\$2,355,738	\$4,678,138
O65	Christman Airfield	Okeene	0.5	0.5	1.0	\$10,500	\$9,654	\$20,153	\$10,000	\$10,948	\$20,948	\$20,500	\$20,602	\$41,101
F81	Okemah Flying Field Airport	Okemah	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
RCE	Clarence E Page Municipal Airport	Oklahoma City	2.0	1.0	3.0	\$93,274	\$77,071	\$170,345	\$250,000	\$250,453	\$500,453	\$343,274	\$327,524	\$670,798
PWA	Wiley Post Airport	Oklahoma City	9.0	6.0	15.0	\$463,644	\$307,127	\$770,771	\$900,000	\$1,070,520	\$1,970,520	\$1,363,644	\$1,377,647	\$2,741,291
OKM	Okmulgee Regional Airport	Okmulgee	2.5	1.5	4.0	\$51,000	\$43,369	\$94,369	\$142,233	\$152,302	\$294,535	\$193,233	\$195,671	\$388,904
PVJ	Pauls Valley Municipal Airport	Pauls Valley	1.0	0.5	1.5	\$35,000	\$13,532	\$48,532	\$24,401	\$19,153	\$43,554	\$59,401	\$32,686	\$92,086
H76	Pawhuska Municipal Airport	Pawhuska	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
F22	Perry Municipal Airport	Perry	2.5	1.5	4.0	\$118,200	\$76,316	\$194,515	\$220,500	\$265,769	\$486,269	\$338,700	\$342,085	\$680,784
PNC	Ponca City Regional Airport	Ponca City	7.5	4.5	12.0	\$260,000	\$222,843	\$482,843	\$733,000	\$782,752	\$1,515,752	\$993,000	\$1,005,595	\$1,998,595
RKR	Robert S Kerr Airport	Poteau	3.0	1.0	4.0	\$85,000	\$69,119	\$154,120	\$222,797	\$242,445	\$465,242	\$307,797	\$311,564	\$619,362
O47	Prague Municipal Airport	Prague	0.5	0.5	1.0	\$7,800	\$5,135	\$12,936	\$15,000	\$17,897	\$32,897	\$22,800	\$23,032	\$45,833
H71	Mid-America Industrial Airport	Pryor	2.0	1.0	3.0	\$35,000	\$25,962	\$60,961	\$306,000	\$271,039	\$577,039	\$341,000	\$297,001	\$638,000
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	0.5	0.5	1.0	\$10,500	\$3,766	\$14,266	\$6,000	\$4,854	\$10,854	\$16,500	\$8,620	\$25,120
JSV	Sallisaw Municipal Airport	Sallisaw	1.0	1.0	2.0	\$21,000	\$15,093	\$36,092	\$123,707	\$114,765	\$238,472	\$144,707	\$129,858	\$274,564
OWP	William R. Pogue Municipal Airport	Sand Springs	3.5	1.5	5.0	\$115,230	\$102,340	\$217,570	\$341,000	\$359,806	\$700,806	\$456,230	\$462,146	\$918,376
3O4	Sayre Municipal Airport	Sayre	1.5	0.5	2.0	\$29,240	\$11,220	\$40,460	\$20,000	\$15,741	\$35,741	\$49,240	\$26,961	\$76,201
SRE	Seminole Municipal Airport	Seminole	3.5	1.5	5.0	\$222,200	\$61,543	\$283,743	\$45,000	\$47,270	\$92,270	\$267,200	\$108,813	\$376,013
SNL	Shawnee Regional Airport	Shawnee	6.0	2.0	8.0	\$176,528	\$115,363	\$291,891	\$335,573	\$401,923	\$737,496	\$512,101	\$517,286	\$1,029,387
2F6	Skiatook Municipal Airport	Skiatook	0.5	0.5	1.0	\$10,000	\$12,963	\$22,963	\$48,000	\$45,934	\$93,934	\$58,000	\$58,897	\$116,897
GZL	Stigler Regional Airport	Stigler	1.5	0.5	2.0	\$20,920	\$13,945	\$34,865	\$41,000	\$48,616	\$89,616	\$61,920	\$62,561	\$124,481
SUD	Stroud Municipal Airport	Stroud	0.5	0.5	1.0	\$10,500	\$8,170	\$18,670	\$25,858	\$28,619	\$54,477	\$36,358	\$36,789	\$73,147
F30	Sulphur Municipal Airport	Sulphur	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
TQH	Tahlequah Municipal Airport	Tahlequah	0.5	0.5	1.0	\$10,500	\$7,087	\$17,588	\$308,698	\$254,629	\$563,327	\$319,198	\$261,716	\$580,915
6F1	Talihina Municipal Airport	Talihina	0.5	0.5	1.0	\$3,484	\$1,075	\$4,559	\$1,200	\$1,075	\$2,275	\$4,684	\$2,150	\$6,834
K49	Texhoma Municipal Airport	Texhoma	0.5	0.5	1.0	\$10,500	\$3,347	\$13,846	\$4,100	\$3,569	\$7,669	\$14,600	\$6,915	\$21,515

TABLE 10 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACT FROM AIRPORT MANAGEMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
1O4	Thomas Municipal Airport	Thomas	1.0	0.5	1.5	\$21,000	\$8,199	\$29,199	\$15,000	\$11,735	\$26,735	\$36,000	\$19,934	\$55,934
1O8	Tipton Municipal Airport	Tipton	0.5	0.5	1.0	\$10,500	\$3,644	\$14,145	\$5,450	\$4,481	\$9,931	\$15,950	\$8,125	\$24,076
0F9	Tishomingo Airpark	Tishomingo	0.5	0.5	1.0	\$10,500	\$3,047	\$13,546	\$2,750	\$2,655	\$5,405	\$13,250	\$5,702	\$18,952
RVS	Richard Lloyd Jones Jr Airport	Tulsa	6.0	2.0	8.0	\$250,600	\$100,280	\$350,880	\$190,000	\$147,478	\$337,478	\$440,600	\$247,758	\$688,358
H04	Vinita Municipal Airport	Vinita	1.0	0.5	1.5	\$21,000	\$8,753	\$29,753	\$17,500	\$13,425	\$30,925	\$38,500	\$22,179	\$60,678
H68	Hefner-Easley Airport	Wagoner	1.0	0.5	1.5	\$21,000	\$7,091	\$28,091	\$10,000	\$8,354	\$18,354	\$31,000	\$15,445	\$46,445
3O5	Walters Municipal Airport	Walters	0.5	0.5	1.0	\$10,500	\$3,313	\$13,812	\$3,950	\$3,467	\$7,417	\$14,450	\$6,779	\$21,229
JWG	Watonga Regional Airport	Watonga	2.0	0.5	2.5	\$42,000	\$15,444	\$57,444	\$25,700	\$20,563	\$46,263	\$67,700	\$36,007	\$103,707
1K5	Waynoka Municipal Airport	Waynoka	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
OJA	Thomas P Stafford Airport	Weatherford	4.5	1.5	6.0	\$130,400	\$46,890	\$177,290	\$75,000	\$60,601	\$135,601	\$205,400	\$107,490	\$312,890
4F1	Westport Airport	Westport	0.5	0.5	1.0	\$10,500	\$6,316	\$16,816	\$17,500	\$21,940	\$39,440	\$28,000	\$28,256	\$56,256
H05	Wilburton Municipal Airport	Wilburton	0.5	0.5	1.0	\$10,500	\$4,299	\$14,798	\$8,400	\$6,476	\$14,876	\$18,900	\$10,775	\$29,675
WWR	West Woodward Airport	Woodward	6.5	2.0	8.5	\$144,128	\$109,136	\$253,264	\$341,400	\$382,025	\$723,425	\$485,528	\$491,161	\$976,689
Total Commercial Service Airports			297	198	495	\$14,697,918	\$10,288,854	\$24,986,772	\$31,815,222	\$36,415,369	\$68,230,591	\$46,513,140	\$46,704,223	\$93,217,363
Total General Aviation Airports			220	121	341	\$7,170,378	\$4,467,134	\$11,637,511	\$14,373,611	\$14,971,654	\$29,345,265	\$21,543,989	\$19,438,788	\$40,982,777
<b>Total All Airports</b>			<b>517</b>	<b>319</b>	<b>836</b>	<b>\$21,868,296</b>	<b>\$14,755,988</b>	<b>\$36,624,283</b>	<b>\$46,188,833</b>	<b>\$51,387,023</b>	<b>\$97,575,856</b>	<b>\$68,057,129</b>	<b>\$66,143,011</b>	<b>\$134,200,139</b>

Source: Airport Managers, IMPLAN

### 4.3 Indirect/Induced and Total Economic Impacts from Airport Tenants

Direct economic impacts for the airport tenant category for employment, payroll, spending, and total economic activity were obtained directly from each tenant, airport representatives, or third-party data sources. Direct impacts for the airport tenant category are presented in **Table 2 – Direct Airport Tenant Employment and Annual Economic Activity**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport’s tenant related impacts that are indirect/induced (multiplier) impacts.

For the airport tenant category, **Table 11 – Direct, Indirect/Induced, and Total Economic Impacts from Airport Tenants** presents each airport’s direct, indirect/induced, and total annual economic impacts for employment, payroll, spending, and annual economic activity. As with other tables in this report, annual economic impact activity is the sum of payroll and spending. It is worth re-stating that the impacts for airport tenants presented in **Table 11** are only for on-airport aviation related businesses. If airports have aviation businesses that are located nearby, but not actually on airport property, the impacts of these businesses are measured as part of the impacts for off-airport aviation/aerospace businesses. These impacts are discussed later in this report.

TABLE 11 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AIRPORT TENANTS

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
LAW	Lawton-Ft. Sill Regional Airport	Lawton	79	81	159	\$3,728,743	\$4,027,649	\$7,756,392	\$4,781,010	\$3,305,602	\$8,086,612	\$8,509,753	\$7,333,251	\$15,843,004
OKC	Will Rogers World Airport	Oklahoma City	9,012	7,598	16,610	\$727,097,233	\$344,585,975	\$1,071,683,208	\$758,296,905	\$803,635,259	\$1,561,932,164	\$1,485,394,138	\$1,148,221,234	\$2,633,615,372
SWO	Stillwater Regional Airport	Stillwater	127	123	250	\$8,030,701	\$5,933,700	\$13,964,401	\$6,130,269	\$6,658,087	\$12,788,356	\$14,160,970	\$12,591,786	\$26,752,757
TUL	Tulsa International Airport	Tulsa	10,485	15,034	25,519	\$694,358,059	\$825,794,110	\$1,520,152,169	\$1,676,908,513	\$1,387,957,742	\$3,064,866,254	\$2,371,266,572	\$2,213,751,852	\$4,585,018,424
ADH	Ada Municipal Airport	Ada	77.0	94.6	171.6	\$3,811,795	\$2,268,309	\$6,080,104	\$6,257,816	\$3,849,689	\$10,107,505	\$10,069,611	\$6,117,998	\$16,187,609
AXS	Altus/Quartz Mountain Regional Airport	Altus	32.5	19.1	51.6	\$1,505,789	\$871,492	\$2,377,281	\$3,384,701	\$3,295,760	\$6,680,462	\$4,890,490	\$4,167,252	\$9,057,742
AVK	Alva Regional Airport	Alva	29.0	29.9	58.9	\$1,122,040	\$727,656	\$1,849,696	\$1,934,769	\$765,547	\$2,700,316	\$3,056,809	\$1,493,204	\$4,550,013
F68	Anadarko Municipal Airport	Anadarko	1.5	0.3	1.8	\$30,000	\$13,112	\$43,112	\$160,000	\$64,004	\$224,004	\$190,000	\$77,116	\$267,116
80F	Antlers Municipal Airport	Antlers	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1F0	Ardmore Downtown Executive	Ardmore	19.5	26.4	45.9	\$1,176,833	\$1,070,918	\$2,247,750	\$1,014,698	\$961,130	\$1,975,828	\$2,191,531	\$2,032,048	\$4,223,579
ADM	Ardmore Municipal	Ardmore	90.0	81.8	171.8	\$4,078,505	\$3,056,497	\$7,135,002	\$4,279,703	\$2,021,704	\$6,301,408	\$8,358,209	\$5,078,201	\$13,436,409
AQR	Atoka Municipal Airport	Atoka	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BVO	Bartlesville Municipal Airport	Bartlesville	31.3	38.5	69.8	\$1,808,446	\$1,959,981	\$3,768,427	\$3,391,824	\$2,862,549	\$6,254,373	\$5,200,270	\$4,822,530	\$10,022,800
K44	Beaver Municipal Airport	Beaver	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	2.5	1.8	4.3	\$250,000	\$227,500	\$477,500	\$750,000	\$380,070	\$1,130,070	\$1,000,000	\$607,570	\$1,607,570
17K	Boise City Airport	Boise City	1.4	0.4	1.8	\$48,100	\$16,433	\$64,533	\$87,900	\$64,434	\$152,334	\$136,000	\$80,867	\$216,867
3F7	Jones Memorial Airport	Bristow	23.5	28.9	52.4	\$1,121,764	\$695,561	\$1,817,325	\$1,599,236	\$957,638	\$2,556,874	\$2,721,000	\$1,653,199	\$4,374,199
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BFK	Buffalo Municipal Airport	Buffalo	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
91F	Carlton Landing Field	Canadian	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
86F	Carnegie Municipal Airport	Carnegie	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CQB	Chandler Regional Airport	Chandler	1.0	1.0	2.0	\$73,401	\$81,763	\$155,164	\$177,371	\$172,900	\$350,271	\$250,772	\$254,663	\$505,435
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	0.5	1.0	\$15,000	\$12,947	\$27,947	\$26,000	\$20,773	\$46,773	\$41,000	\$33,719	\$74,719
4O5	Cherokee Municipal Airport	Cherokee	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
93F	Mignon Laird Municipal Airport	Cheyenne	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CHK	Chickasha Municipal Airport	Chickasha	19.5	11.7	31.2	\$1,007,912	\$536,026	\$1,543,938	\$778,729	\$926,072	\$1,704,801	\$1,786,641	\$1,462,098	\$3,248,740
GCM	Claremore Regional Airport	Claremore	25.0	16.8	41.8	\$1,316,439	\$769,983	\$2,086,422	\$1,069,399	\$840,803	\$1,910,202	\$2,385,838	\$1,610,786	\$3,996,624
95F	Cleveland Municipal Airport	Cleveland	4.0	5.0	9.0	\$391,474	\$249,084	\$640,558	\$611,612	\$150,020	\$761,632	\$1,003,086	\$399,104	\$1,402,190
CLK	Clinton Regional Airport	Clinton	7.5	4.3	11.8	\$278,435	\$204,670	\$483,105	\$238,854	\$207,397	\$446,251	\$517,289	\$412,067	\$929,356
CSM	Clinton-Sherman Airport	Clinton	14.0	14.0	28.0	\$560,000	\$308,000	\$868,000	\$916,092	\$1,093,943	\$2,010,035	\$1,476,092	\$1,401,943	\$2,878,035
44M	Tenkiller Lake Airpark	Cookson	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
F36	Cordell Municipal Airport	Cordell	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



TABLE 11 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AIRPORT TENANTS

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
CUH	Cushing Municipal Airport	Cushing	23.8	18.6	42.4	\$1,285,500	\$892,897	\$2,178,397	\$749,565	\$688,536	\$1,438,101	\$2,035,065	\$1,581,432	\$3,616,497
DUC	Halliburton Field Airport	Duncan	14.5	13.9	28.4	\$797,812	\$666,578	\$1,464,390	\$725,105	\$484,538	\$1,209,643	\$1,522,916	\$1,151,116	\$2,674,032
DUA	Durant Regional Airport - Eaker Field	Durant	23.1	15.6	38.7	\$1,029,787	\$747,862	\$1,777,649	\$1,192,279	\$1,215,507	\$2,407,786	\$2,222,066	\$1,963,369	\$4,185,435
RQO	El Reno Regional Airport	El Reno	24.0	21.5	45.5	\$1,185,248	\$1,026,449	\$2,211,697	\$1,121,352	\$409,536	\$1,530,888	\$2,306,600	\$1,435,985	\$3,742,585
ELK	Elk City Regional Business Airport	Elk City	18.0	19.4	37.4	\$1,324,877	\$860,612	\$2,185,489	\$748,633	\$363,115	\$1,111,749	\$2,073,511	\$1,223,727	\$3,297,238
WDG	Enid Woodring Regional Airport	Enid	95.0	85.8	180.8	\$4,453,147	\$3,217,385	\$7,670,532	\$5,684,004	\$2,772,230	\$8,456,234	\$10,137,151	\$5,989,615	\$16,126,766
F08	Eufaula Municipal Airport	Eufaula	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0F7	Fountainhead Lodge Airpark	Eufaula	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6K4	Fairview Municipal Airport	Fairview	4.0	2.4	6.4	\$165,240	\$106,149	\$271,389	\$615,000	\$263,053	\$878,053	\$780,240	\$369,202	\$1,149,442
FDR	Frederick Regional Airport	Frederick	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GAG	Gage Airport	Gage	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1K4	David Jay Perry Airport	Goldsby	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1O1	Grandfield Municipal Airport	Grandfield	2.5	1.8	4.3	\$120,250	\$77,247	\$197,497	\$500,000	\$216,249	\$716,249	\$620,250	\$293,496	\$913,746
GMJ	Grove Regional Airport	Grove	5.0	6.1	11.1	\$291,442	\$314,069	\$605,511	\$251,175	\$141,448	\$392,624	\$542,617	\$455,517	\$998,134
GOK	Guthrie-Edmond Regional Airport	Guthrie	64.0	65.8	129.8	\$3,271,103	\$2,463,925	\$5,735,028	\$4,359,281	\$2,172,071	\$6,531,352	\$7,630,384	\$4,635,996	\$12,266,380
GUY	Guymon Municipal Airport	Guymon	12.0	8.7	20.7	\$583,429	\$397,894	\$981,323	\$550,982	\$365,851	\$916,834	\$1,134,411	\$763,746	\$1,898,157
F32	Healdton Municipal Airport	Healdton	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
F10	Henryetta Municipal Airport	Henryetta	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2O8	Hinton Municipal Airport	Hinton	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
HBR	Hobart Regional Airport	Hobart	4.0	2.7	6.7	\$192,400	\$123,597	\$315,997	\$169,600	\$96,344	\$265,944	\$362,000	\$219,941	\$581,941
F99	Holdenville Municipal Airport	Holdenville	3.5	2.8	6.3	\$170,430	\$133,105	\$303,535	\$217,404	\$109,596	\$327,000	\$387,834	\$242,700	\$630,535
O35	Hollis Municipal Airport	Hollis	7.0	4.8	11.8	\$336,700	\$216,293	\$552,993	\$296,800	\$168,602	\$465,402	\$633,500	\$384,896	\$1,018,396
H92	Hominy Municipal Airport	Hominy	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O45	Hooker Municipal Airport	Hooker	2.0	1.4	3.4	\$96,200	\$61,798	\$157,998	\$253,800	\$103,819	\$357,619	\$350,000	\$165,617	\$515,617
HHW	Stan Stamper Municipal Airport	Hugo	14.0	10.0	24.0	\$761,925	\$460,990	\$1,222,915	\$589,657	\$555,743	\$1,145,400	\$1,351,582	\$1,016,733	\$2,368,315
4O4	McCurtain County Regional Airport	Idabel	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1K8	South Grand Lake Regional Airport	Ketchum	3.0	3.0	6.0	\$160,000	\$144,315	\$304,315	\$50,000	\$44,433	\$94,433	\$210,000	\$188,748	\$398,748
F92	Kingfisher Airport	Kingfisher	5.0	3.0	8.0	\$176,200	\$111,488	\$287,688	\$384,800	\$181,506	\$566,306	\$561,000	\$292,994	\$853,994
F31	Lake Texoma State Park Airport	Kingston	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O51	Laverne Municipal Airport	Laverne	2.0	0.4	2.4	\$35,000	\$22,483	\$57,483	\$300,000	\$102,536	\$402,536	\$335,000	\$125,019	\$460,019
1K2	Lindsay Municipal Airport	Lindsay	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1F4	Madill Municipal Airport	Madill	1.0	1.0	2.0	\$45,338	\$40,670	\$86,008	\$49,962	\$26,761	\$76,723	\$95,300	\$67,431	\$162,731

TABLE 11 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AIRPORT TENANTS

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
2K4	Scott Field Airport	Mangum	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MLC	McAlester Regional Airport	McAlester	33.5	27.6	61.1	\$1,878,700	\$1,294,190	\$3,172,890	\$1,655,148	\$1,539,530	\$3,194,678	\$3,533,848	\$2,833,720	\$6,367,568
O53	Medford Municipal Airport	Medford	1.5	1.1	2.6	\$72,150	\$46,349	\$118,499	\$63,600	\$36,129	\$99,729	\$135,750	\$82,478	\$218,228
MIO	Miami Regional Airport	Miami	7.0	9.3	16.3	\$558,137	\$442,021	\$1,000,158	\$895,019	\$463,253	\$1,358,272	\$1,453,156	\$905,273	\$2,358,429
MDF	Mooreland Municipal Airport	Mooreland	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MKO	Muskogee Davis Regional Airport	Muskogee	13.0	5.6	18.6	\$385,008	\$264,215	\$649,223	\$1,181,289	\$638,289	\$1,819,578	\$1,566,297	\$902,503	\$2,468,800
OUN	University of Oklahoma Westheimer Airport	Norman	114.5	104.9	219.4	\$6,083,838	\$5,002,750	\$11,086,588	\$3,075,865	\$2,802,157	\$5,878,022	\$9,159,703	\$7,804,906	\$16,964,609
O65	Christman Airfield	Okeene	7.5	5.2	12.7	\$360,750	\$231,743	\$592,493	\$318,000	\$180,646	\$498,646	\$678,750	\$412,388	\$1,091,138
F81	Okemah Flying Field Airport	Okemah	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RCE	Clarence E Page Municipal Airport	Oklahoma City	28.0	37.8	65.8	\$1,811,785	\$1,840,198	\$3,651,983	\$2,724,215	\$2,467,465	\$5,191,680	\$4,536,000	\$4,307,663	\$8,843,663
PWA	Wiley Post Airport	Oklahoma City	609.5	661.8	1271.3	\$33,522,923	\$34,006,597	\$67,529,520	\$40,981,017	\$36,734,371	\$77,715,387	\$74,503,940	\$70,740,968	\$145,244,908
OKM	Okmulgee Regional Airport	Okmulgee	76.0	73.1	149.1	\$3,500,360	\$3,565,796	\$7,066,156	\$3,777,140	\$3,361,738	\$7,138,878	\$7,277,500	\$6,927,534	\$14,205,034
PVJ	Pauls Valley Municipal Airport	Pauls Valley	7.0	7.8	14.8	\$413,605	\$406,252	\$819,857	\$1,438,710	\$920,909	\$2,359,619	\$1,852,315	\$1,327,161	\$3,179,476
H76	Pawhuska Municipal Airport	Pawhuska	1.0	0.7	1.7	\$48,100	\$30,898	\$78,998	\$42,400	\$24,087	\$66,487	\$90,500	\$54,985	\$145,485
F22	Perry Municipal Airport	Perry	7.5	9.6	17.1	\$609,592	\$449,163	\$1,058,755	\$864,266	\$537,800	\$1,402,067	\$1,473,858	\$986,964	\$2,460,822
PNC	Ponca City Regional Airport	Ponca City	11.5	15.7	27.2	\$1,852,224	\$747,158	\$2,599,382	\$1,503,453	\$1,731,566	\$3,235,020	\$3,355,677	\$2,478,724	\$5,834,402
RKR	Robert S Kerr Airport	Poteau	2.0	1.3	3.3	\$90,676	\$87,004	\$177,680	\$190,600	\$180,113	\$370,713	\$281,276	\$267,117	\$548,393
O47	Prague Municipal Airport	Prague	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
H71	Mid-America Industrial Airport	Pryor	8.0	5.9	13.9	\$472,008	\$269,594	\$741,602	\$316,222	\$302,030	\$618,253	\$788,230	\$571,624	\$1,359,854
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JSV	Sallisaw Municipal Airport	Sallisaw	12.0	15.3	27.3	\$759,702	\$639,663	\$1,399,365	\$979,823	\$407,916	\$1,387,739	\$1,739,525	\$1,047,579	\$2,787,104
OWP	William R. Pogue Municipal Airport	Sand Springs	8.0	3.5	11.5	\$252,640	\$157,778	\$410,418	\$444,600	\$204,527	\$649,127	\$697,240	\$362,305	\$1,059,545
3O4	Sayre Municipal Airport	Sayre	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRE	Seminole Municipal Airport	Seminole	13.0	14.5	27.5	\$606,008	\$496,175	\$1,102,183	\$616,222	\$570,843	\$1,187,065	\$1,222,230	\$1,067,019	\$2,289,249
SNL	Shawnee Regional Airport	Shawnee	27.0	22.1	49.1	\$1,267,202	\$878,452	\$2,145,654	\$2,273,853	\$1,779,012	\$4,052,865	\$3,541,055	\$2,657,464	\$6,198,519
2F6	Skiatook Municipal Airport	Skiatook	5.0	2.7	7.7	\$235,000	\$114,159	\$349,159	\$282,055	\$291,418	\$573,473	\$517,055	\$405,577	\$922,632
GZL	Stigler Regional Airport	Stigler	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUD	Stroud Municipal Airport	Stroud	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
F30	Sulphur Municipal Airport	Sulphur	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TQH	Tahlequah Municipal Airport	Tahlequah	8.0	8.2	16.2	\$782,947	\$877,773	\$1,660,720	\$1,223,226	\$1,156,177	\$2,379,403	\$2,006,173	\$2,033,951	\$4,040,123
6F1	Talihina Municipal Airport	Talihina	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
K49	Texhoma Municipal Airport	Texhoma	2.0	2.0	4.0	\$90,000	\$59,400	\$149,400	\$91,000	\$76,350	\$167,350	\$181,000	\$135,750	\$316,750

TABLE 11 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AIRPORT TENANTS

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
104	Thomas Municipal Airport	Thomas	11.0	13.4	24.4	\$984,866	\$861,306	\$1,846,172	\$975,384	\$568,576	\$1,543,960	\$1,960,250	\$1,429,882	\$3,390,132
108	Tipton Municipal Airport	Tipton	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0F9	Tishomingo Airpark	Tishomingo	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RVS	Richard Lloyd Jones Jr Airport	Tulsa	268.0	221.1	489.1	\$13,066,703	\$10,538,765	\$23,605,468	\$14,971,014	\$12,929,159	\$27,900,173	\$28,037,717	\$23,467,924	\$51,505,641
H04	Vinita Municipal Airport	Vinita	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
H68	Hefner-Easley Airport	Wagoner	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3O5	Walters Municipal Airport	Walters	1.5	1.3	2.8	\$90,000	\$57,815	\$147,815	\$135,750	\$71,583	\$207,333	\$225,750	\$129,398	\$355,148
JWG	Watonga Regional Airport	Watonga	4.0	2.7	6.7	\$192,400	\$123,597	\$315,997	\$193,650	\$110,956	\$304,606	\$386,050	\$234,553	\$620,603
1K5	Waynoka Municipal Airport	Waynoka	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OJA	Thomas P Stafford Airport	Weatherford	11.0	15.2	26.2	\$788,758	\$728,556	\$1,517,314	\$1,530,477	\$889,427	\$2,419,904	\$2,319,235	\$1,617,983	\$3,937,218
4F1	Westport Airport	Westport	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
H05	Wilburton Municipal Airport	Wilburton	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WWR	West Woodward Airport	Woodward	1.0	1.3	2.3	\$63,280	\$64,272	\$127,552	\$73,804	\$65,912	\$139,716	\$137,084	\$130,183	\$267,268
Total Commercial Service Airports			19,702	22,836	42,538	\$1,433,214,736	\$1,180,341,434	\$2,613,556,170	\$2,446,116,697	\$2,201,556,689	\$4,647,673,386	\$3,879,331,433	\$3,381,898,122	\$7,261,229,556
Total General Aviation Airports			2,006	1,954	3,960	\$105,917,323	\$89,437,374	\$195,354,697	\$128,305,907	\$100,157,848	\$228,463,756	\$234,223,230	\$189,595,222	\$423,818,452
<b>Total All Airports</b>			<b>21,708</b>	<b>24,790</b>	<b>46,499</b>	<b>\$1,539,132,059</b>	<b>\$1,269,778,808</b>	<b>\$2,808,910,867</b>	<b>\$2,574,422,605</b>	<b>\$2,301,714,537</b>	<b>\$4,876,137,142</b>	<b>\$4,113,554,664</b>	<b>\$3,571,493,345</b>	<b>\$7,685,048,008</b>

Source: Oklahoma Airport Tenants, Oklahoma Department of Commerce, IMPLAN

#### 4.4 Airport Indirect/Induced and Total Economic Impacts from Airport Capital Investment

Direct economic impacts for the capital investment category for employment, payroll, spending, and annual economic activity were obtained directly from OAC, the FAA, airport sponsors, or third party private investment sources. Direct impacts for the capital investment category are presented in **Table 3 – Direct Impacts from Average Annual Capital Investment**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of annual economic impacts from capital investment that is related to indirect/induced (multiplier) impacts.

For the capital investment category, **Table 12 – Direct, Indirect/Induced, and Total Economic Impacts from Average Annual Capital Investment** presents each airport’s direct, indirect/induced, and total annual economic impacts for employment, payroll, spending, and annual economic activity. These results consider what has been invested in each airport, on average, over the past five years.

TABLE 12 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
LAW	Lawton-Ft. Sill Regional Airport	Lawton	10	8	18	\$385,570	\$390,587	\$776,157	\$1,238,608	\$1,015,579	\$2,254,187	\$1,624,178	\$1,406,166	\$3,030,344
OKC	Will Rogers World Airport	Oklahoma City	527	443	970	\$20,335,928	\$20,600,595	\$40,936,523	\$65,327,403	\$53,564,259	\$118,891,662	\$85,663,331	\$74,164,854	\$159,828,185
SWO	Stillwater Regional Airport	Stillwater	20	17	36	\$743,730	\$753,409	\$1,497,139	\$2,389,168	\$1,958,963	\$4,348,131	\$3,132,898	\$2,712,372	\$5,845,270
TUL	Tulsa International Airport	Tulsa	384	323	707	\$14,825,602	\$15,018,554	\$29,844,156	\$47,625,961	\$39,050,217	\$86,676,178	\$62,451,563	\$54,068,771	\$116,520,334
ADH	Ada Municipal Airport	Ada	12.0	10.0	22.0	\$463,763	\$469,798	\$933,561	\$1,489,798	\$1,221,539	\$2,711,337	\$1,953,561	\$1,691,337	\$3,644,898
AXS	Altus/Quartz Mountain Regional Airport	Altus	2.0	2.0	4.0	\$82,595	\$83,669	\$166,264	\$265,327	\$217,552	\$482,879	\$347,922	\$301,221	\$649,143
AVK	Alva Regional Airport	Alva	1.0	1.0	2.0	\$40,015	\$40,536	\$80,551	\$128,546	\$105,399	\$233,945	\$168,561	\$145,935	\$314,496
F68	Anadarko Municipal Airport	Anadarko	0.5	0.5	1.0	\$28,086	\$28,452	\$56,538	\$90,224	\$73,978	\$164,202	\$118,310	\$102,430	\$220,740
80F	Antlers Municipal Airport	Antlers	1.0	1.0	2.0	\$33,032	\$33,463	\$66,495	\$106,114	\$87,005	\$193,119	\$139,146	\$120,468	\$259,614
1F0	Ardmore Downtown Executive	Ardmore	2.0	2.0	4.0	\$82,738	\$83,814	\$166,552	\$265,788	\$217,930	\$483,718	\$348,526	\$301,744	\$650,270
ADM	Ardmore Municipal	Ardmore	13.5	11.5	25.0	\$517,395	\$524,128	\$1,041,523	\$1,662,085	\$1,362,803	\$3,024,888	\$2,179,480	\$1,886,931	\$4,066,411
AQR	Atoka Municipal Airport	Atoka	1.0	1.0	2.0	\$46,943	\$47,554	\$94,497	\$150,801	\$123,646	\$274,447	\$197,744	\$171,200	\$368,944
BVO	Bartlesville Municipal Airport	Bartlesville	3.0	3.0	6.0	\$131,998	\$133,716	\$265,714	\$424,033	\$347,680	\$771,713	\$556,031	\$481,396	\$1,037,427
K44	Beaver Municipal Airport	Beaver	0.0	0.0	0.0	\$3,262	\$3,304	\$6,566	\$10,478	\$8,591	\$19,069	\$13,740	\$11,895	\$25,635
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	1.0	1.0	2.0	\$36,270	\$36,742	\$73,012	\$116,513	\$95,533	\$212,046	\$152,783	\$132,275	\$285,058
17K	Boise City Airport	Boise City	0.6	0.4	1.0	\$22,448	\$22,740	\$45,188	\$72,111	\$59,126	\$131,237	\$94,559	\$81,866	\$176,425
3F7	Jones Memorial Airport	Bristow	8.0	7.0	15.0	\$311,608	\$315,664	\$627,272	\$1,001,014	\$820,766	\$1,821,780	\$1,312,622	\$1,136,430	\$2,449,052
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	0.0	0.0	0.0	\$8,784	\$8,897	\$17,681	\$28,216	\$23,136	\$51,352	\$37,000	\$32,033	\$69,033
BFK	Buffalo Municipal Airport	Buffalo	1.0	1.0	2.0	\$32,828	\$33,255	\$66,083	\$105,456	\$86,467	\$191,923	\$138,284	\$119,722	\$258,006
91F	Carlton Landing Field	Canadian	2.0	1.0	3.0	\$64,096	\$64,931	\$129,027	\$205,904	\$168,826	\$374,730	\$270,000	\$233,757	\$503,757
86F	Carnegie Municipal Airport	Carnegie	1.0	1.0	2.0	\$40,210	\$40,734	\$80,944	\$129,173	\$105,913	\$235,086	\$169,383	\$146,647	\$316,030
CQB	Chandler Regional Airport	Chandler	2.0	1.0	3.0	\$72,639	\$73,584	\$146,223	\$233,347	\$191,329	\$424,676	\$305,986	\$264,913	\$570,899
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	0.5	1.0	\$16,072	\$16,280	\$32,352	\$51,628	\$42,332	\$93,960	\$67,700	\$58,612	\$126,312
4O5	Cherokee Municipal Airport	Cherokee	1.0	1.0	2.0	\$35,128	\$35,585	\$70,713	\$112,845	\$92,526	\$205,371	\$147,973	\$128,111	\$276,084
93F	Mignon Laird Municipal Airport	Cheyenne	0.0	0.0	0.0	\$915	\$927	\$1,842	\$2,939	\$2,409	\$5,348	\$3,854	\$3,336	\$7,190
CHK	Chickasha Municipal Airport	Chickasha	1.0	1.0	2.0	\$41,959	\$42,506	\$84,465	\$134,791	\$110,519	\$245,310	\$176,750	\$153,025	\$329,775
GCM	Claremore Regional Airport	Claremore	4.5	4.0	8.5	\$171,770	\$174,027	\$345,797	\$551,846	\$452,491	\$1,004,337	\$723,616	\$626,518	\$1,350,134
95F	Cleveland Municipal Airport	Cleveland	0.5	0.5	1.0	\$16,711	\$16,928	\$33,639	\$53,683	\$44,017	\$97,700	\$70,394	\$60,945	\$131,339
CLK	Clinton Regional Airport	Clinton	2.0	1.0	3.0	\$69,808	\$70,717	\$140,525	\$224,253	\$183,873	\$408,126	\$294,061	\$254,590	\$548,651
CSM	Clinton-Sherman Airport	Clinton	0.5	0.5	1.0	\$23,739	\$24,049	\$47,788	\$76,261	\$62,527	\$138,788	\$100,000	\$86,576	\$186,576
44M	Tenkiller Lake Airpark	Cookson	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
F36	Cordell Municipal Airport	Cordell	1.0	1.0	2.0	\$31,909	\$32,325	\$64,234	\$102,507	\$84,048	\$186,555	\$134,416	\$116,373	\$250,789

TABLE 12 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
CUH	Cushing Municipal Airport	Cushing	1.0	1.0	2.0	\$33,045	\$33,475	\$66,520	\$106,155	\$87,040	\$193,195	\$139,200	\$120,515	\$259,715
DUC	Halliburton Field Airport	Duncan	2.0	2.0	4.0	\$82,019	\$83,087	\$165,106	\$263,481	\$216,036	\$479,517	\$345,500	\$299,123	\$644,623
DUA	Durant Regional Airport - Eaker Field	Durant	2.0	2.0	4.0	\$85,079	\$86,186	\$171,265	\$273,308	\$224,095	\$497,403	\$358,387	\$310,281	\$668,668
RQO	El Reno Regional Airport	El Reno	0.5	0.5	1.0	\$18,453	\$18,694	\$37,147	\$59,280	\$48,605	\$107,885	\$77,733	\$67,299	\$145,032
ELK	Elk City Regional Business Airport	Elk City	2.0	2.0	4.0	\$90,569	\$91,748	\$182,317	\$290,945	\$238,556	\$529,501	\$381,514	\$330,304	\$711,818
WDG	Enid Woodring Regional Airport	Enid	14.0	12.0	26.0	\$557,790	\$565,050	\$1,122,840	\$1,791,852	\$1,469,202	\$3,261,054	\$2,349,642	\$2,034,252	\$4,383,894
F08	Eufaula Municipal Airport	Eufaula	1.0	1.0	2.0	\$39,039	\$39,548	\$78,587	\$125,411	\$102,828	\$228,239	\$164,450	\$142,376	\$306,826
0F7	Fountainhead Lodge Airpark	Eufaula	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6K4	Fairview Municipal Airport	Fairview	2.0	2.0	4.0	\$90,308	\$91,482	\$181,790	\$290,105	\$237,869	\$527,974	\$380,413	\$329,351	\$709,764
FDR	Frederick Regional Airport	Frederick	7.0	6.0	13.0	\$258,717	\$262,084	\$520,801	\$831,105	\$681,452	\$1,512,557	\$1,089,822	\$943,536	\$2,033,358
GAG	Gage Airport	Gage	1.0	1.0	2.0	\$33,568	\$34,004	\$67,572	\$107,832	\$88,416	\$196,248	\$141,400	\$122,420	\$263,820
1K4	David Jay Perry Airport	Goldsby	4.0	4.0	8.0	\$168,977	\$171,175	\$340,152	\$542,822	\$445,081	\$987,903	\$711,799	\$616,256	\$1,328,055
101	Grandfield Municipal Airport	Grandfield	0.5	0.5	1.0	\$21,715	\$21,997	\$43,712	\$69,756	\$57,196	\$126,952	\$91,471	\$79,193	\$170,664
GMJ	Grove Regional Airport	Grove	5.5	4.5	10.0	\$202,848	\$205,488	\$408,336	\$651,632	\$534,297	\$1,185,929	\$854,480	\$739,785	\$1,594,265
GOK	Guthrie-Edmond Regional Airport	Guthrie	4.0	3.0	7.0	\$151,804	\$153,780	\$305,584	\$487,657	\$399,847	\$887,504	\$639,461	\$553,627	\$1,193,088
GUY	Guymon Municipal Airport	Guymon	4.0	4.0	8.0	\$170,942	\$173,166	\$344,108	\$549,135	\$450,255	\$999,390	\$720,077	\$623,421	\$1,343,498
F32	Healdton Municipal Airport	Healdton	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
F10	Henryetta Municipal Airport	Henryetta	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
208	Hinton Municipal Airport	Hinton	1.0	1.0	2.0	\$53,704	\$54,403	\$108,107	\$172,521	\$141,455	\$313,976	\$226,225	\$195,858	\$422,083
HBR	Hobart Regional Airport	Hobart	1.0	1.0	2.0	\$31,842	\$32,257	\$64,099	\$102,291	\$83,872	\$186,163	\$134,133	\$116,129	\$250,262
F99	Holdenville Municipal Airport	Holdenville	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O35	Hollis Municipal Airport	Hollis	0.0	0.0	0.0	\$2,935	\$2,973	\$5,908	\$9,427	\$7,730	\$17,157	\$12,362	\$10,703	\$23,065
H92	Hominy Municipal Airport	Hominy	0.5	0.5	1.0	\$9,454	\$9,577	\$19,031	\$28,787	\$23,521	\$52,308	\$38,241	\$33,098	\$71,339
O45	Hooker Municipal Airport	Hooker	1.0	1.0	2.0	\$37,643	\$38,133	\$75,776	\$120,924	\$99,150	\$220,074	\$158,567	\$137,283	\$295,850
HHW	Stan Stamper Municipal Airport	Hugo	0.5	0.5	1.0	\$28,139	\$28,505	\$56,644	\$90,395	\$74,118	\$164,513	\$118,534	\$102,623	\$221,157
404	McCurtain County Regional Airport	Idabel	4.0	4.0	8.0	\$168,785	\$170,981	\$339,766	\$542,205	\$444,573	\$986,778	\$710,990	\$615,554	\$1,326,544
1K8	South Grand Lake Regional Airport	Ketchum	3.5	2.5	6.0	\$131,951	\$133,667	\$265,618	\$423,879	\$347,555	\$771,434	\$555,830	\$481,222	\$1,037,052
F92	Kingfisher Airport	Kingfisher	1.0	1.0	2.0	\$48,223	\$48,850	\$97,073	\$154,911	\$127,018	\$281,929	\$203,134	\$175,868	\$379,002
F31	Lake Texoma State Park Airport	Kingston	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O51	Laverne Municipal Airport	Laverne	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1K2	Lindsay Municipal Airport	Lindsay	1.0	1.0	2.0	\$42,865	\$43,423	\$86,288	\$137,701	\$112,906	\$250,607	\$180,566	\$156,329	\$336,895
1F4	Madill Municipal Airport	Madill	1.0	1.0	2.0	\$29,477	\$29,861	\$59,338	\$94,693	\$77,642	\$172,335	\$124,170	\$107,503	\$231,673

TABLE 12 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
2K4	Scott Field Airport	Mangum	1.0	1.0	2.0	\$48,296	\$48,924	\$97,220	\$155,145	\$127,209	\$282,354	\$203,441	\$176,133	\$379,574
MLC	McAlester Regional Airport	McAlester	3.0	3.0	6.0	\$125,884	\$127,522	\$253,406	\$404,392	\$331,574	\$735,966	\$530,276	\$459,096	\$989,372
O53	Medford Municipal Airport	Medford	0.5	0.5	1.0	\$16,429	\$16,642	\$33,071	\$52,776	\$43,274	\$96,050	\$69,205	\$59,916	\$129,121
MIO	Miami Regional Airport	Miami	4.0	3.0	7.0	\$140,248	\$142,074	\$282,322	\$450,535	\$369,409	\$819,944	\$590,783	\$511,483	\$1,102,266
MDF	Mooreland Municipal Airport	Mooreland	0.0	0.0	0.0	\$7,958	\$8,061	\$16,019	\$25,564	\$20,961	\$46,525	\$33,522	\$29,022	\$62,544
MKO	Muskogee Davis Regional Airport	Muskogee	5.5	4.5	10.0	\$214,382	\$217,171	\$431,553	\$688,682	\$564,675	\$1,253,357	\$903,064	\$781,846	\$1,684,910
OUN	University of Oklahoma Westheimer Airport	Norman	6.5	5.5	12.0	\$252,331	\$255,616	\$507,947	\$810,593	\$664,632	\$1,475,225	\$1,062,924	\$920,248	\$1,983,172
O65	Christman Airfield	Okeene	1.0	1.0	2.0	\$36,708	\$37,186	\$73,894	\$117,921	\$96,688	\$214,609	\$154,629	\$133,874	\$288,503
F81	Okemah Flying Field Airport	Okemah	1.0	1.0	2.0	\$89,590	\$90,756	\$180,346	\$287,799	\$235,977	\$523,776	\$377,389	\$326,733	\$704,122
RCE	Clarence E Page Municipal Airport	Oklahoma City	4.0	4.0	8.0	\$171,631	\$173,864	\$345,495	\$551,349	\$452,071	\$1,003,420	\$722,980	\$625,935	\$1,348,915
PWA	Wiley Post Airport	Oklahoma City	22.0	19.0	41.0	\$861,122	\$872,330	\$1,733,452	\$2,766,281	\$2,268,172	\$5,034,453	\$3,627,403	\$3,140,502	\$6,767,905
OKM	Okmulgee Regional Airport	Okmulgee	1.0	1.0	2.0	\$43,112	\$43,673	\$86,785	\$138,493	\$113,555	\$252,048	\$181,605	\$157,228	\$338,833
PVJ	Pauls Valley Municipal Airport	Pauls Valley	5.0	4.0	9.0	\$187,971	\$190,417	\$378,388	\$603,839	\$495,109	\$1,098,948	\$791,810	\$685,526	\$1,477,336
H76	Pawhuska Municipal Airport	Pawhuska	0.5	0.5	1.0	\$13,137	\$13,309	\$26,446	\$42,203	\$34,602	\$76,805	\$55,340	\$47,911	\$103,251
F22	Perry Municipal Airport	Perry	2.0	2.0	4.0	\$78,823	\$79,848	\$158,671	\$253,210	\$207,616	\$460,826	\$332,033	\$287,464	\$619,497
PNC	Ponca City Regional Airport	Ponca City	1.5	1.5	3.0	\$54,877	\$55,590	\$110,467	\$176,286	\$144,543	\$320,829	\$231,163	\$200,133	\$431,296
RKR	Robert S Kerr Airport	Poteau	2.0	2.0	4.0	\$80,592	\$81,641	\$162,233	\$258,894	\$212,277	\$471,171	\$339,486	\$293,918	\$633,404
O47	Prague Municipal Airport	Prague	2.0	2.0	4.0	\$74,417	\$75,386	\$149,803	\$239,059	\$196,012	\$435,071	\$313,476	\$271,398	\$584,874
H71	Mid-America Industrial Airport	Pryor	3.0	2.0	5.0	\$112,442	\$113,905	\$226,347	\$361,209	\$296,168	\$657,377	\$473,651	\$410,073	\$883,724
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	3.0	2.0	5.0	\$99,339	\$100,633	\$199,972	\$319,120	\$261,657	\$580,777	\$418,459	\$362,290	\$780,749
JSV	Sallisaw Municipal Airport	Sallisaw	1.0	1.0	2.0	\$35,646	\$36,110	\$71,756	\$114,510	\$93,892	\$208,402	\$150,156	\$130,002	\$280,158
OWP	William R. Pogue Municipal Airport	Sand Springs	5.5	4.5	10.0	\$200,721	\$203,333	\$404,054	\$644,799	\$528,694	\$1,173,493	\$845,520	\$732,027	\$1,577,547
3O4	Sayre Municipal Airport	Sayre	1.0	1.0	2.0	\$41,006	\$41,540	\$82,546	\$131,730	\$108,009	\$239,739	\$172,736	\$149,549	\$322,285
SRE	Seminole Municipal Airport	Seminole	5.0	4.0	9.0	\$184,129	\$186,524	\$370,653	\$591,496	\$484,991	\$1,076,487	\$775,625	\$671,515	\$1,447,140
SNL	Shawnee Regional Airport	Shawnee	7.0	6.0	13.0	\$269,628	\$273,137	\$542,765	\$866,157	\$710,194	\$1,576,351	\$1,135,785	\$983,331	\$2,119,116
2F6	Skiatook Municipal Airport	Skiatook	1.5	1.5	3.0	\$55,512	\$56,234	\$111,746	\$178,327	\$146,217	\$324,544	\$233,839	\$202,451	\$436,290
GZL	Stigler Regional Airport	Stigler	2.0	1.0	3.0	\$69,455	\$70,360	\$139,815	\$223,119	\$182,943	\$406,062	\$292,574	\$253,303	\$545,877
SUD	Stroud Municipal Airport	Stroud	1.0	1.0	2.0	\$46,349	\$46,953	\$93,302	\$148,894	\$122,082	\$270,976	\$195,243	\$169,035	\$364,278
F30	Sulphur Municipal Airport	Sulphur	0.5	0.5	1.0	\$21,401	\$21,680	\$43,081	\$68,750	\$56,370	\$125,120	\$90,151	\$78,050	\$168,201
TQH	Tahlequah Municipal Airport	Tahlequah	2.0	1.0	3.0	\$68,871	\$69,767	\$138,638	\$221,241	\$181,403	\$402,644	\$290,112	\$251,170	\$541,282
6F1	Talihina Municipal Airport	Talihina	1.0	0.5	1.5	\$15,826	\$16,032	\$31,858	\$50,841	\$41,686	\$92,527	\$66,667	\$57,718	\$124,385
K49	Texhoma Municipal Airport	Texhoma	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

TABLE 12 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM AVERAGE ANNUAL CAPITAL INVESTMENT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
1O4	Thomas Municipal Airport	Thomas	1.5	1.5	3.0	\$63,378	\$64,202	\$127,580	\$203,595	\$166,935	\$370,530	\$266,973	\$231,137	\$498,110
1O8	Tipton Municipal Airport	Tipton	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0F9	Tishomingo Airpark	Tishomingo	1.0	1.0	2.0	\$51,279	\$51,945	\$103,224	\$164,727	\$135,067	\$299,794	\$216,006	\$187,012	\$403,018
RVS	Richard Lloyd Jones Jr Airport	Tulsa	42.0	35.0	77.0	\$1,610,199	\$1,631,155	\$3,241,354	\$5,172,625	\$4,241,219	\$9,413,844	\$6,782,824	\$5,872,374	\$12,655,198
H04	Vinita Municipal Airport	Vinita	1.0	1.0	2.0	\$50,963	\$51,626	\$102,589	\$163,715	\$134,236	\$297,951	\$214,678	\$185,862	\$400,540
H68	Hefner-Easley Airport	Wagoner	1.0	1.0	2.0	\$32,999	\$33,429	\$66,428	\$106,007	\$86,918	\$192,925	\$139,006	\$120,347	\$259,353
3O5	Walters Municipal Airport	Walters	0.5	0.5	1.0	\$18,283	\$18,520	\$36,803	\$58,731	\$48,156	\$106,887	\$77,014	\$66,676	\$143,690
JWG	Watonga Regional Airport	Watonga	1.5	1.5	3.0	\$57,685	\$58,435	\$116,120	\$185,306	\$151,939	\$337,245	\$242,991	\$210,374	\$453,365
1K5	Waynoka Municipal Airport	Waynoka	0.5	0.5	1.0	\$28,440	\$28,810	\$57,250	\$91,362	\$74,911	\$166,273	\$119,802	\$103,721	\$223,523
OJA	Thomas P Stafford Airport	Weatherford	4.0	3.0	7.0	\$152,035	\$154,013	\$306,048	\$488,398	\$400,455	\$888,853	\$640,433	\$554,468	\$1,194,901
4F1	Westport Airport	Westport	0.0	0.0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
H05	Wilburton Municipal Airport	Wilburton	1.0	1.0	2.0	\$50,869	\$51,530	\$102,399	\$163,411	\$133,987	\$297,398	\$214,280	\$185,517	\$399,797
WWR	West Woodward Airport	Woodward	5.5	4.5	10.0	\$209,967	\$212,700	\$422,667	\$674,501	\$553,047	\$1,227,548	\$884,468	\$765,747	\$1,650,215
Total Commercial Service Airports			940.5	790.5	1731	\$36,290,830	\$36,763,145	\$73,053,975	\$116,581,140	\$95,589,019	\$212,170,159	\$152,871,970	\$132,352,164	\$285,224,134
Total General Aviation Airports			283	245	528	\$11,060,542	\$11,204,502	\$22,265,044	\$35,529,483	\$29,131,810	\$64,661,293	\$46,590,025	\$40,336,312	\$86,926,337
<b>Total All Airports</b>			<b>1,224</b>	<b>1,035</b>	<b>2,259</b>	<b>\$47,351,372</b>	<b>\$47,967,647</b>	<b>\$95,319,019</b>	<b>\$152,110,623</b>	<b>\$124,720,828</b>	<b>\$276,831,452</b>	<b>\$199,461,995</b>	<b>\$172,688,475</b>	<b>\$372,150,471</b>

Source: OAC, FAA, Airports, Tenants, and IMPLAN



## 4.5 Indirect/Induced and Total Economic Impacts from General Aviation Visitors

Direct economic impacts for the general aviation visitor spending category for employment, payroll, spending, and annual economic activity were obtained using input from airport operators, OAC, and study surveys. Direct impacts for general aviation visitors are presented in **Table 5 – General Aviation Visitor Direct Employment, Payroll, Spending, and Annual Economic Activity**.

Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of general aviation visitor related economic impacts that is related to indirect/induced (multiplier) impacts. For both general aviation and commercial visitor spending, direct visitor spending was assigned to one or more of the following categories based on survey results: hotels, food, ground transportation, retail, and entertainment.

For the general aviation visitor spending category, **Table 13 – Direct, Indirect/Induced, and Total Economic Impacts from General Aviation Visitor Spending** presents each airport's direct, indirect/induced, and total annual economic impacts for employment, payroll, spending, and total annual economic activity, which is the sum of payroll and spending.

TABLE 13 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM GENERAL AVIATION VISITOR SPENDING

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
LAW	Lawton-Ft. Sill Regional Airport	Lawton	79	28	107	\$1,755,469	\$1,253,814	\$3,009,283	\$4,896,207	\$2,474,574	\$7,370,781	\$6,651,676	\$3,728,388	\$10,380,064
OKC	Will Rogers World Airport	Oklahoma City	302	108	410	\$6,700,144	\$4,785,471	\$11,485,615	\$18,687,467	\$9,444,887	\$28,132,354	\$25,387,611	\$14,230,358	\$39,617,969
SWO	Stillwater Regional Airport	Stillwater	109	38	147	\$2,410,590	\$1,721,725	\$4,132,315	\$6,723,410	\$3,398,095	\$10,121,505	\$9,134,000	\$5,119,820	\$14,253,820
TUL	Tulsa International Airport	Tulsa	364	130	494	\$8,063,947	\$5,759,540	\$13,823,487	\$22,491,259	\$11,367,330	\$33,858,589	\$30,555,206	\$17,126,870	\$47,682,076
ADH	Ada Municipal Airport	Ada	13.0	4.0	17.0	\$275,119	\$197,533	\$472,652	\$739,253	\$433,559	\$1,172,812	\$1,014,372	\$631,092	\$1,645,464
AXS	Altus/Quartz Mountain Regional Airport	Altus	9.0	4.0	13.0	\$197,254	\$141,626	\$338,880	\$530,027	\$310,851	\$840,878	\$727,281	\$452,477	\$1,179,758
AVK	Alva Regional Airport	Alva	5.0	2.0	7.0	\$106,989	\$76,819	\$183,808	\$287,482	\$168,616	\$456,098	\$394,471	\$245,435	\$639,906
F68	Anadarko Municipal Airport	Anadarko	0.0	0.0	0.0	\$3,263	\$2,321	\$5,584	\$8,412	\$5,195	\$13,607	\$11,675	\$7,516	\$19,191
80F	Antlers Municipal Airport	Antlers	0.5	0.5	1.0	\$6,791	\$4,832	\$11,623	\$30,008	\$18,863	\$48,871	\$36,799	\$23,695	\$60,494
1F0	Ardmore Downtown Executive	Ardmore	5.0	2.0	7.0	\$107,752	\$77,365	\$185,117	\$293,283	\$172,145	\$465,428	\$401,035	\$249,510	\$650,545
ADM	Ardmore Municipal	Ardmore	55.0	20.0	75.0	\$1,228,946	\$877,755	\$2,106,702	\$3,455,793	\$1,748,148	\$5,203,941	\$4,684,739	\$2,625,903	\$7,310,642
AQR	Atoka Municipal Airport	Atoka	0.5	0.5	1.0	\$7,716	\$5,489	\$13,204	\$19,889	\$12,288	\$32,178	\$27,605	\$17,777	\$45,382
BVO	Bartlesville Municipal Airport	Bartlesville	15.0	6.0	21.0	\$336,239	\$241,415	\$577,654	\$903,484	\$529,879	\$1,433,363	\$1,239,723	\$771,294	\$2,011,017
K44	Beaver Municipal Airport	Beaver	0.0	0.0	0.0	\$2,466	\$1,756	\$4,222	\$6,359	\$3,928	\$10,287	\$8,825	\$5,684	\$14,509
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	1.0	0.0	1.0	\$15,325	\$11,003	\$26,328	\$41,179	\$24,146	\$65,325	\$56,504	\$35,149	\$91,653
17K	Boise City Airport	Boise City	1.0	1.0	2.0	\$21,550	\$15,331	\$36,882	\$49,150	\$30,189	\$79,338	\$70,700	\$45,520	\$116,220
3F7	Jones Memorial Airport	Bristow	1.0	1.0	2.0	\$25,273	\$17,978	\$43,250	\$65,142	\$40,246	\$105,389	\$90,415	\$58,224	\$148,639
90F	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	Broken Bow	0.0	0.0	0.0	\$2,229	\$1,585	\$3,814	\$5,747	\$3,549	\$9,296	\$7,976	\$5,134	\$13,110
BFK	Buffalo Municipal Airport	Buffalo	0.0	0.0	0.0	\$659	\$469	\$1,128	\$1,696	\$1,049	\$2,745	\$2,355	\$1,518	\$3,873
91F	Carlton Landing Field	Canadian	0.0	0.0	0.0	\$2,355	\$1,675	\$4,031	\$6,074	\$3,751	\$9,824	\$8,429	\$5,426	\$13,855
86F	Carnegie Municipal Airport	Carnegie	0.0	0.0	0.0	\$2,206	\$1,570	\$3,775	\$5,689	\$3,512	\$9,202	\$7,895	\$5,082	\$12,977
CQB	Chandler Regional Airport	Chandler	3.0	1.0	4.0	\$58,428	\$41,952	\$100,381	\$156,997	\$92,089	\$249,085	\$215,425	\$134,041	\$349,466
92F	Chattanooga Sky Harbor Airport	Chattanooga	0.5	0.5	1.0	\$8,628	\$6,139	\$14,767	\$28,491	\$17,765	\$46,256	\$37,119	\$23,904	\$61,023
405	Cherokee Municipal Airport	Cherokee	0.5	0.5	1.0	\$6,423	\$4,569	\$10,992	\$16,552	\$10,229	\$26,781	\$22,975	\$14,798	\$37,773
93F	Mignon Laird Municipal Airport	Cheyenne	0.0	0.0	0.0	\$6,144	\$4,372	\$10,516	\$23,340	\$14,614	\$37,954	\$29,484	\$18,986	\$48,470
CHK	Chickasha Municipal Airport	Chickasha	5.0	2.0	7.0	\$101,563	\$72,920	\$174,483	\$272,901	\$160,051	\$432,952	\$374,464	\$232,971	\$607,435
GCM	Claremore Regional Airport	Claremore	22.0	8.0	30.0	\$475,584	\$339,677	\$815,261	\$1,330,216	\$672,481	\$2,002,697	\$1,805,800	\$1,012,158	\$2,817,958
95F	Cleveland Municipal Airport	Cleveland	0.0	0.0	0.0	\$3,662	\$2,605	\$6,267	\$9,438	\$5,832	\$15,270	\$13,100	\$8,437	\$21,537
CLK	Clinton Regional Airport	Clinton	5.0	2.5	7.5	\$107,752	\$77,365	\$185,117	\$283,949	\$166,327	\$450,276	\$391,701	\$243,692	\$635,393
CSM	Clinton-Sherman Airport	Clinton	1.0	1.0	2.0	\$21,550	\$15,331	\$36,881	\$45,391	\$27,766	\$73,157	\$66,941	\$43,097	\$110,038
44M	Tenkiller Lake Airpark	Cookson	0.5	0.5	1.0	\$6,423	\$4,569	\$10,992	\$16,552	\$10,229	\$26,781	\$22,975	\$14,798	\$37,773
F36	Cordell Municipal Airport	Cordell	0.0	0.0	0.0	\$1,963	\$1,396	\$3,359	\$6,312	\$3,933	\$10,245	\$8,275	\$5,329	\$13,604

TABLE 13 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM GENERAL AVIATION VISITOR SPENDING

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
CUH	Cushing Municipal Airport	Cushing	13.0	5.0	18.0	\$287,181	\$206,194	\$493,375	\$771,661	\$452,573	\$1,224,234	\$1,058,842	\$658,767	\$1,717,609
DUC	Halliburton Field Airport	Duncan	8.0	3.0	11.0	\$183,541	\$131,780	\$315,321	\$499,426	\$293,124	\$792,550	\$682,967	\$424,904	\$1,107,871
DUA	Durant Regional Airport - Eaker Field	Durant	20.0	7.4	27.4	\$431,009	\$309,459	\$740,468	\$1,160,575	\$680,749	\$1,841,324	\$1,591,584	\$990,208	\$2,581,792
RQO	El Reno Regional Airport	El Reno	6.0	2.0	8.0	\$123,151	\$88,422	\$211,573	\$337,160	\$197,968	\$535,128	\$460,311	\$286,390	\$746,701
ELK	Elk City Regional Business Airport	Elk City	6.0	2.0	8.0	\$122,241	\$87,767	\$210,008	\$332,211	\$194,974	\$527,185	\$454,452	\$282,741	\$737,193
WDG	Enid Woodring Regional Airport	Enid	53.0	18.0	71.0	\$1,161,463	\$829,554	\$1,991,018	\$3,239,459	\$1,637,234	\$4,876,692	\$4,400,922	\$2,466,788	\$6,867,710
F08	Eufaula Municipal Airport	Eufaula	0.0	0.0	0.0	\$2,997	\$2,133	\$5,130	\$35,414	\$22,594	\$58,008	\$38,411	\$24,726	\$63,137
0F7	Fountainhead Lodge Airpark	Eufaula	0.0	0.0	0.0	\$659	\$469	\$1,128	\$1,696	\$1,049	\$2,745	\$2,355	\$1,518	\$3,873
6K4	Fairview Municipal Airport	Fairview	2.0	1.0	3.0	\$52,821	\$37,925	\$90,747	\$141,933	\$83,250	\$225,182	\$194,754	\$121,175	\$315,929
FDR	Frederick Regional Airport	Frederick	1.5	0.5	2.0	\$28,669	\$20,394	\$49,063	\$73,896	\$45,653	\$119,549	\$102,565	\$66,047	\$168,612
GAG	Gage Airport	Gage	0.0	0.0	0.0	\$520	\$370	\$890	\$3,215	\$2,040	\$5,254	\$3,735	\$2,410	\$6,145
1K4	David Jay Perry Airport	Goldsby	1.0	1.0	2.0	\$30,493	\$21,692	\$52,185	\$78,602	\$48,558	\$127,160	\$109,095	\$70,250	\$179,345
1O1	Grandfield Municipal Airport	Grandfield	0.0	0.0	0.0	\$4,574	\$3,255	\$7,829	\$11,791	\$7,284	\$19,075	\$16,365	\$10,539	\$26,904
GMJ	Grove Regional Airport	Grove	7.0	2.0	9.0	\$151,619	\$108,861	\$260,480	\$413,650	\$242,832	\$656,482	\$565,269	\$351,693	\$916,962
GOK	Guthrie-Edmond Regional Airport	Guthrie	39.0	14.0	53.0	\$865,236	\$617,984	\$1,483,220	\$2,420,745	\$1,223,913	\$3,644,657	\$3,285,981	\$1,841,896	\$5,127,877
GUY	Guymon Municipal Airport	Guymon	22.0	7.3	29.3	\$474,110	\$338,628	\$812,738	\$1,290,818	\$650,684	\$1,941,502	\$1,764,928	\$989,312	\$2,754,240
F32	Healdton Municipal Airport	Healdton	0.0	0.0	0.0	\$774	\$550	\$1,324	\$1,996	\$1,235	\$3,231	\$2,770	\$1,785	\$4,555
F10	Henryetta Municipal Airport	Henryetta	0.0	0.0	0.0	\$2,599	\$1,850	\$4,448	\$29,199	\$18,628	\$47,827	\$31,798	\$20,477	\$52,275
2O8	Hinton Municipal Airport	Hinton	0.5	0.5	1.0	\$9,564	\$6,803	\$16,367	\$27,152	\$16,841	\$43,993	\$36,716	\$23,645	\$60,361
HBR	Hobart Regional Airport	Hobart	2.0	1.0	3.0	\$41,683	\$29,929	\$71,612	\$127,001	\$75,031	\$202,032	\$168,684	\$104,960	\$273,644
F99	Holdenville Municipal Airport	Holdenville	0.0	0.0	0.0	\$1,963	\$1,396	\$3,359	\$5,062	\$3,128	\$8,190	\$7,025	\$4,524	\$11,549
O35	Hollis Municipal Airport	Hollis	0.0	0.0	0.0	\$4,066	\$2,892	\$6,958	\$10,479	\$6,473	\$16,952	\$14,545	\$9,365	\$23,910
H92	Hominy Municipal Airport	Hominy	0.0	0.0	0.0	\$2,206	\$1,570	\$3,775	\$5,689	\$3,512	\$9,202	\$7,895	\$5,082	\$12,977
O45	Hooker Municipal Airport	Hooker	0.0	0.0	0.0	\$4,066	\$2,892	\$6,958	\$10,479	\$6,473	\$16,952	\$14,545	\$9,365	\$23,910
HHW	Stan Stamper Municipal Airport	Hugo	2.0	0.0	2.0	\$43,101	\$30,664	\$73,765	\$94,580	\$57,993	\$152,573	\$137,681	\$88,657	\$226,338
4O4	McCurtain County Regional Airport	Idabel	5.0	1.7	6.7	\$107,752	\$77,367	\$185,119	\$241,807	\$140,119	\$381,925	\$349,559	\$217,485	\$567,044
1K8	South Grand Lake Regional Airport	Ketchum	5.0	2.0	7.0	\$114,376	\$82,120	\$196,496	\$311,082	\$182,574	\$493,656	\$425,458	\$264,694	\$690,152
F92	Kingfisher Airport	Kingfisher	0.5	0.5	1.0	\$15,044	\$10,702	\$25,747	\$45,030	\$27,979	\$73,009	\$60,074	\$38,682	\$98,756
F31	Lake Texoma State Park Airport	Kingston	0.0	0.0	0.0	\$2,206	\$1,570	\$3,775	\$5,689	\$3,512	\$9,202	\$7,895	\$5,082	\$12,977
O51	Laverne Municipal Airport	Laverne	0.0	0.0	0.0	\$398	\$283	\$681	\$1,027	\$632	\$1,659	\$1,425	\$915	\$2,340
1K2	Lindsay Municipal Airport	Lindsay	0.0	0.0	0.0	\$1,963	\$1,396	\$3,359	\$5,062	\$3,128	\$8,190	\$7,025	\$4,524	\$11,549
1F4	Madill Municipal Airport	Madill	0.5	0.5	1.0	\$8,628	\$6,139	\$14,767	\$22,242	\$13,741	\$35,983	\$30,870	\$19,880	\$50,750

TABLE 13 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM GENERAL AVIATION VISITOR SPENDING

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
2K4	Scott Field Airport	Mangum	0.5	0.5	1.0	\$9,553	\$6,795	\$16,347	\$24,622	\$15,212	\$39,835	\$34,175	\$22,007	\$56,182
MLC	McAlester Regional Airport	McAlester	24.0	8.0	32.0	\$530,712	\$379,050	\$909,762	\$1,482,084	\$749,157	\$2,231,241	\$2,012,796	\$1,128,207	\$3,141,003
O53	Medford Municipal Airport	Medford	1.0	1.0	2.0	\$21,550	\$15,331	\$36,881	\$53,073	\$32,710	\$85,782	\$74,623	\$48,040	\$122,663
MIO	Miami Regional Airport	Miami	4.0	1.0	5.0	\$77,685	\$55,778	\$133,464	\$214,990	\$126,323	\$341,313	\$292,675	\$182,101	\$474,776
MDF	Mooreland Municipal Airport	Mooreland	0.0	0.0	0.0	\$4,314	\$3,069	\$7,383	\$11,121	\$6,867	\$17,988	\$15,435	\$9,936	\$25,371
MKO	Muskogee Davis Regional Airport	Muskogee	25.0	8.0	33.0	\$542,005	\$387,115	\$929,120	\$1,545,455	\$782,929	\$2,328,384	\$2,087,460	\$1,170,044	\$3,257,504
OUN	University of Oklahoma Westheimer Airport	Norman	105.0	38.0	143.0	\$2,334,332	\$1,667,262	\$4,001,594	\$6,510,720	\$3,290,624	\$9,801,344	\$8,845,052	\$4,957,886	\$13,802,938
O65	Christman Airfield	Okeene	0.0	0.0	0.0	\$3,390	\$2,412	\$5,802	\$8,740	\$5,397	\$14,137	\$12,130	\$7,809	\$19,939
F81	Okemah Flying Field Airport	Okemah	0.0	0.0	0.0	\$1,034	\$736	\$1,770	\$9,120	\$5,801	\$14,921	\$10,154	\$6,537	\$16,691
RCE	Clarence E Page Municipal Airport	Oklahoma City	6.0	2.0	8.0	\$122,241	\$87,767	\$210,008	\$328,461	\$192,641	\$521,102	\$450,702	\$280,408	\$731,110
PWA	Wiley Post Airport	Oklahoma City	252.0	90.0	342.0	\$5,576,952	\$3,983,243	\$9,560,195	\$15,562,242	\$7,865,738	\$23,427,981	\$21,139,194	\$11,848,981	\$32,988,175
OKM	Okmulgee Regional Airport	Okmulgee	8.0	3.0	11.0	\$172,222	\$123,654	\$295,876	\$469,011	\$275,295	\$744,306	\$641,233	\$398,949	\$1,040,182
PVJ	Pauls Valley Municipal Airport	Pauls Valley	4.0	1.3	5.3	\$86,202	\$61,893	\$148,094	\$221,074	\$129,290	\$350,364	\$307,276	\$191,182	\$498,458
H76	Pawhuska Municipal Airport	Pawhuska	0.5	0.5	1.0	\$6,423	\$4,569	\$10,992	\$16,552	\$10,229	\$26,781	\$22,975	\$14,798	\$37,773
F22	Perry Municipal Airport	Perry	3.0	1.0	4.0	\$68,581	\$49,240	\$117,822	\$218,026	\$129,064	\$347,089	\$286,607	\$178,304	\$464,911
PNC	Ponca City Regional Airport	Ponca City	14.0	5.0	19.0	\$308,292	\$221,349	\$529,641	\$828,389	\$485,834	\$1,314,223	\$1,136,681	\$707,183	\$1,843,864
RKR	Robert S Kerr Airport	Poteau	4.0	1.0	5.0	\$76,117	\$54,649	\$130,767	\$213,901	\$125,780	\$339,681	\$290,018	\$180,430	\$470,448
O47	Prague Municipal Airport	Prague	1.0	0.0	1.0	\$14,277	\$10,156	\$24,433	\$39,299	\$24,348	\$63,647	\$53,576	\$34,504	\$88,080
H71	Mid-America Industrial Airport	Pryor	3.0	1.0	4.0	\$61,120	\$43,884	\$105,004	\$164,231	\$96,320	\$260,551	\$225,351	\$140,204	\$365,555
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	0.5	0.5	1.0	\$8,628	\$6,139	\$14,767	\$22,242	\$13,741	\$35,983	\$30,870	\$19,880	\$50,750
JSV	Sallisaw Municipal Airport	Sallisaw	2.0	1.0	3.0	\$37,348	\$26,816	\$64,164	\$100,356	\$58,854	\$159,210	\$137,704	\$85,670	\$223,374
OWP	William R. Pogue Municipal Airport	Sand Springs	9.0	3.0	12.0	\$190,239	\$136,588	\$326,827	\$511,175	\$299,792	\$810,967	\$701,414	\$436,380	\$1,137,794
3O4	Sayre Municipal Airport	Sayre	0.0	0.0	0.0	\$2,206	\$1,570	\$3,775	\$5,689	\$3,512	\$9,202	\$7,895	\$5,082	\$12,977
SRE	Seminole Municipal Airport	Seminole	3.5	1.5	5.0	\$74,697	\$53,630	\$128,327	\$200,711	\$117,707	\$318,418	\$275,408	\$171,337	\$446,745
SNL	Shawnee Regional Airport	Shawnee	20.0	7.1	27.1	\$431,009	\$307,837	\$738,846	\$1,183,470	\$597,083	\$1,780,553	\$1,614,479	\$904,920	\$2,519,399
2F6	Skiatook Municipal Airport	Skiatook	1.0	0.0	1.0	\$15,325	\$11,003	\$26,328	\$41,179	\$24,146	\$65,325	\$56,504	\$35,149	\$91,653
GZL	Stigler Regional Airport	Stigler	4.0	2.0	6.0	\$86,202	\$61,891	\$148,093	\$179,810	\$103,604	\$283,414	\$266,012	\$165,494	\$431,506
SUD	Stroud Municipal Airport	Stroud	0.0	0.0	0.0	\$3,263	\$2,321	\$5,584	\$8,412	\$5,195	\$13,607	\$11,675	\$7,516	\$19,191
F30	Sulphur Municipal Airport	Sulphur	0.0	0.0	0.0	\$2,206	\$1,570	\$3,775	\$5,689	\$3,512	\$9,202	\$7,895	\$5,082	\$12,977
TQH	Tahlequah Municipal Airport	Tahlequah	4.0	2.0	6.0	\$91,442	\$65,653	\$157,095	\$245,706	\$144,095	\$389,801	\$337,148	\$209,748	\$546,896
6F1	Talihina Municipal Airport	Talihina	0.0	0.0	0.0	\$1,034	\$736	\$1,770	\$2,666	\$1,646	\$4,312	\$3,700	\$2,382	\$6,082
K49	Texhoma Municipal Airport	Texhoma	0.0	0.0	0.0	\$1,034	\$736	\$1,770	\$8,915	\$5,669	\$14,584	\$9,949	\$6,405	\$16,354

TABLE 13 – DIRECT, INDIRECT/INDUCED, AND TOTAL ECONOMIC IMPACTS FROM GENERAL AVIATION VISITOR SPENDING

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
1O4	Thomas Municipal Airport	Thomas	1.0	0.0	1.0	\$23,569	\$16,766	\$40,335	\$60,751	\$37,532	\$98,283	\$84,320	\$54,298	\$138,618
1O8	Tipton Municipal Airport	Tipton	0.0	0.0	0.0	\$1,963	\$1,396	\$3,359	\$5,062	\$3,128	\$8,190	\$7,025	\$4,524	\$11,549
0F9	Tishomingo Airpark	Tishomingo	0.0	0.0	0.0	\$659	\$469	\$1,128	\$1,696	\$1,049	\$2,745	\$2,355	\$1,518	\$3,873
RVS	Richard Lloyd Jones Jr Airport	Tulsa	229.0	82.0	311.0	\$5,081,006	\$3,632,669	\$8,713,675	\$14,129,949	\$7,245,430	\$21,375,379	\$19,210,955	\$10,878,099	\$30,089,054
H04	Vinita Municipal Airport	Vinita	1.0	0.0	1.0	\$14,394	\$10,240	\$24,635	\$43,325	\$26,987	\$70,312	\$57,719	\$37,227	\$94,946
H68	Hefner-Easley Airport	Wagoner	0.5	0.5	1.0	\$6,423	\$4,569	\$10,992	\$16,552	\$10,229	\$26,781	\$22,975	\$14,798	\$37,773
3O5	Walters Municipal Airport	Walters	0.0	0.0	0.0	\$1,034	\$736	\$1,770	\$2,666	\$1,646	\$4,312	\$3,700	\$2,382	\$6,082
JWG	Watonga Regional Airport	Watonga	1.0	0.0	1.0	\$18,574	\$13,214	\$31,787	\$47,876	\$29,577	\$77,454	\$66,450	\$42,791	\$109,241
1K5	Waynoka Municipal Airport	Waynoka	0.0	0.0	0.0	\$1,553	\$1,106	\$2,659	\$4,007	\$2,475	\$6,482	\$5,560	\$3,581	\$9,141
OJA	Thomas P Stafford Airport	Weatherford	7.0	2.0	9.0	\$141,497	\$101,593	\$243,090	\$386,455	\$226,876	\$613,331	\$527,952	\$328,469	\$856,421
4F1	Westport Airport	Westport	0.0	0.0	0.0	\$3,795	\$2,699	\$6,494	\$9,781	\$6,043	\$15,824	\$13,576	\$8,742	\$22,318
H05	Wilburton Municipal Airport	Wilburton	0.0	0.0	0.0	\$514	\$366	\$881	\$1,327	\$820	\$2,146	\$1,841	\$1,186	\$3,027
WWR	West Woodward Airport	Woodward	10.0	6.0	16.0	\$305,777	\$278,493	\$584,271	\$161,297	\$22,403	\$183,700	\$467,074	\$300,896	\$767,970
Total Commercial Service Airports			854	304	1,158	\$18,930,150	\$13,520,550	\$32,450,700	\$52,798,343	\$26,684,886	\$79,483,229	\$71,728,493	\$40,205,436	\$111,933,929
Total General Aviation Airports			1,086	395	1,481	\$23,983,319	\$17,209,186	\$41,192,505	\$65,702,508	\$34,379,016	\$100,081,523	\$89,685,827	\$51,588,201	\$141,274,028
<b>Total All Airports</b>			<b>1,940</b>	<b>699</b>	<b>2,639</b>	<b>\$42,913,469</b>	<b>\$30,729,735</b>	<b>\$73,643,205</b>	<b>\$118,500,851</b>	<b>\$61,063,902</b>	<b>\$179,564,753</b>	<b>\$161,414,320</b>	<b>\$91,793,637</b>	<b>\$253,207,957</b>

Source: Airport Managers, Study Surveys, OAC, and IMPLAN

## 4.6 Indirect/Induced and Total Economic Impacts from Commercial Visitors

Direct economic impacts for the commercial visitor spending category for employment, payroll, spending, and annual economic activity were obtained from visitor surveys, study airports, and USDOT. Direct impacts for commercial visitor spending are presented in **Table 8**. Direct impacts were entered into the IMPLAN model to estimate total economic impacts and to determine the portion of each airport's commercial visitor impacts related to indirect/induced (multiplier) impacts.

For the commercial visitor spending category, **Table 14 – Direct, Indirect, and Total Economic Impacts from Commercial Visitor Spending** presents each commercial airport's direct, indirect/induced, and total annual economic impacts for employment, payroll, spending, and annual economic activity. Impacts in this category are associated with only the four commercial airports in Oklahoma.

TABLE 14 – DIRECT, INDIRECT, AND TOTAL ECONOMIC IMPACTS FROM COMMERCIAL VISITOR SPENDING

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
LAW	Lawton-Ft. Sill Regional Airport	Lawton	173	68	240	\$4,029,411	\$3,021,880	\$7,051,291	\$10,992,895	\$6,247,291	\$17,240,186	\$15,022,306	\$9,269,171	\$24,291,477
OKC	Will Rogers World Airport	Oklahoma City	8,428	3,292	11,721	\$196,529,302	\$147,298,429	\$343,827,731	\$537,018,114	\$303,185,015	\$840,203,129	\$733,547,416	\$450,483,444	\$1,184,030,860
SWO	Stillwater Regional Airport	Stillwater	151	59	210	\$3,520,844	\$2,640,797	\$6,161,641	\$9,605,529	\$5,457,762	\$15,063,291	\$13,126,373	\$8,098,559	\$21,224,932
TUL	Tulsa International Airport	Tulsa	7,003	2,596	9,599	\$157,474,090	\$115,506,477	\$272,980,567	\$467,221,048	\$213,311,458	\$680,532,506	\$624,695,138	\$328,817,935	\$953,513,073
<b>Totals</b>			<b>15,755</b>	<b>6,015</b>	<b>21,770</b>	<b>\$361,553,647</b>	<b>\$268,467,583</b>	<b>\$630,021,230</b>	<b>\$1,024,837,586</b>	<b>\$528,201,526</b>	<b>\$1,553,039,112</b>	<b>\$1,386,391,233</b>	<b>\$796,669,109</b>	<b>\$2,183,060,342</b>

Source: Study Airports, USDOT, Study Surveys, and IMPLAN

## 5.0 TOTAL ANNUAL ECONOMIC IMPACTS FOR EACH OKLAHOMA AIRPORT

For each the 109 public airports analyzed in this study, the airport's total annual economic impact is the sum of its impacts (as applicable) from airport management, airport tenants, average annual capital investment, general aviation visitor spending, and commercial visitor spending. All total economic impacts for each airport are the sum of its direct and indirect/induced impacts that come from the multiplier effect.

**Table 15 – Total Annual Statewide Economic Impacts for Each Oklahoma Airport** provides a summary of each airport's total annual economic impact estimated in this study. **Table 15** presents total annual economic impacts (employment, payroll, spending, and annual economic activity) for each commercial or general aviation airport resulting from each of the five economic activity centers considered in this report. Total airport economic impacts shown in **Table 15** were estimated using a statewide Oklahoma input/Economic Activity model developed specifically for this analysis. Impacts shown in **Table 15** reflect each airport's total impact on Oklahoma's statewide economy.



TABLE 15 – TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FOR EACH OKLAHOMA AIRPORT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
LAW	Lawton-Ft. Sill Regional Airport	Lawton	349	188	538	\$10,209,337	\$8,881,528	\$19,090,865	\$22,430,248	\$13,694,817	\$36,125,065	\$32,639,585	\$22,576,345	\$55,215,930
OKC	Will Rogers World Airport	Oklahoma City	18,410	11,551	29,960	\$957,760,541	\$523,148,380	\$1,480,908,921	\$1,398,412,907	\$1,190,457,056	\$2,588,869,963	\$2,356,173,448	\$1,713,605,437	\$4,069,778,885
SWO	Stillwater Regional Airport	Stillwater	421	243	663	\$15,095,866	\$11,168,960	\$26,264,825	\$25,770,092	\$18,359,356	\$44,129,448	\$40,865,957	\$29,528,316	\$70,394,273
TUL	Tulsa International Airport	Tulsa	18,369	18,162	36,531	\$881,621,538	\$966,182,697	\$1,847,804,235	\$2,225,535,741	\$1,665,936,259	\$3,891,472,001	\$3,107,157,279	\$2,632,118,957	\$5,739,276,236
ADH	Ada Municipal Airport	Ada	104.0	109.6	213.6	\$4,677,677	\$2,982,927	\$7,660,603	\$8,567,217	\$5,568,748	\$14,135,965	\$13,244,894	\$8,551,675	\$21,796,568
AXS	Altus/Quartz Mountain Regional Airport	Altus	46.5	27.1	73.6	\$1,898,638	\$1,215,016	\$3,113,654	\$4,595,055	\$4,182,296	\$8,777,352	\$6,493,694	\$5,397,312	\$11,891,006
AVK	Alva Regional Airport	Alva	39.0	34.9	73.9	\$1,384,579	\$943,043	\$2,327,622	\$2,672,045	\$1,383,817	\$4,055,862	\$4,056,623	\$2,326,860	\$6,383,484
F68	Anadarko Municipal Airport	Anadarko	3.0	1.3	4.3	\$80,849	\$61,946	\$142,794	\$319,686	\$206,737	\$526,424	\$400,535	\$268,683	\$669,218
80F	Antlers Municipal Airport	Antlers	2.5	2.0	4.5	\$47,324	\$46,243	\$93,567	\$164,122	\$133,926	\$298,048	\$211,445	\$180,170	\$391,615
1F0	Ardmore Downtown Executive	Ardmore	28.0	31.9	59.9	\$1,457,323	\$1,291,509	\$2,748,832	\$1,747,544	\$1,558,267	\$3,305,811	\$3,204,867	\$2,849,776	\$6,054,642
ADM	Ardmore Municipal	Ardmore	162.5	116.3	278.8	\$5,941,846	\$4,535,615	\$10,477,462	\$10,597,581	\$6,106,317	\$16,703,899	\$16,539,428	\$10,641,932	\$27,181,360
AQR	Atoka Municipal Airport	Atoka	3.5	2.0	5.5	\$122,154	\$93,576	\$215,730	\$192,655	\$155,903	\$348,559	\$314,809	\$249,479	\$564,289
BVO	Bartlesville Municipal Airport	Bartlesville	61.3	55.5	116.8	\$2,664,182	\$2,558,060	\$5,222,242	\$5,319,342	\$4,467,907	\$9,787,249	\$7,983,524	\$7,025,967	\$15,009,491
K44	Beaver Municipal Airport	Beaver	1.0	0.5	1.5	\$42,428	\$15,128	\$57,557	\$23,837	\$20,035	\$43,871	\$66,265	\$35,163	\$101,428
BKN	Blackwell-Tonkawa Municipal Airport	Blackwell	6.5	3.8	10.3	\$343,594	\$306,275	\$649,869	\$1,003,692	\$601,929	\$1,605,621	\$1,347,287	\$908,203	\$2,255,490
17K	Boise City Airport	Boise City	3.5	2.3	5.8	\$102,598	\$58,791	\$161,389	\$217,507	\$159,279	\$376,786	\$320,105	\$218,070	\$538,175
3F7	Jones Memorial Airport	Bristow	34.0	37.4	71.4	\$1,571,244	\$1,060,279	\$2,631,524	\$2,687,692	\$1,842,263	\$4,529,955	\$4,258,937	\$2,902,542	\$7,161,479
90F	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	Broken Bow	1.0	0.5	1.5	\$32,013	\$30,154	\$62,167	\$100,713	\$95,936	\$196,649	\$132,726	\$126,091	\$258,817
BFK	Buffalo Municipal Airport	Buffalo	1.5	1.5	3.0	\$43,987	\$38,267	\$82,253	\$116,652	\$98,438	\$215,090	\$160,639	\$136,704	\$297,343
91F	Carlton Landing Field	Canadian	2.5	1.5	4.0	\$76,951	\$72,922	\$149,873	\$229,478	\$194,517	\$423,995	\$306,429	\$267,440	\$573,868
86F	Carnegie Municipal Airport	Carnegie	2.0	1.5	3.5	\$63,416	\$47,733	\$111,149	\$137,370	\$112,713	\$250,083	\$200,786	\$160,445	\$361,232
CQB	Chandler Regional Airport	Chandler	6.5	3.5	10.0	\$214,968	\$202,276	\$417,244	\$779,215	\$633,278	\$1,412,493	\$994,183	\$835,554	\$1,829,737
92F	Chattanooga Sky Harbor Airport	Chattanooga	2.0	2.0	4.0	\$50,200	\$41,682	\$91,882	\$123,619	\$102,810	\$226,429	\$173,819	\$144,492	\$318,311
4O5	Cherokee Municipal Airport	Cherokee	2.0	2.0	4.0	\$52,052	\$43,699	\$95,750	\$134,397	\$106,932	\$241,329	\$186,448	\$150,630	\$337,079
93F	Mignon Laird Municipal Airport	Cheyenne	0.5	0.5	1.0	\$17,559	\$9,508	\$27,067	\$34,279	\$24,135	\$58,413	\$51,838	\$33,643	\$85,481
CHK	Chickasha Municipal Airport	Chickasha	28.5	15.7	44.2	\$1,241,383	\$712,232	\$1,953,615	\$1,366,421	\$1,408,640	\$2,775,061	\$2,607,804	\$2,120,872	\$4,728,676
GCM	Claremore Regional Airport	Claremore	55.5	29.8	85.3	\$2,049,793	\$1,325,594	\$3,375,387	\$3,050,460	\$2,110,056	\$5,160,516	\$5,100,253	\$3,435,650	\$8,535,903
95F	Cleveland Municipal Airport	Cleveland	5.0	6.0	11.0	\$422,346	\$274,934	\$697,280	\$692,234	\$221,808	\$914,042	\$1,114,580	\$496,742	\$1,611,322
CLK	Clinton Regional Airport	Clinton	19.5	11.8	31.3	\$772,138	\$593,235	\$1,365,374	\$1,037,056	\$981,230	\$2,018,286	\$1,809,194	\$1,574,465	\$3,383,659
CSM	Clinton-Sherman Airport	Clinton	23.5	18.5	42.0	\$915,609	\$483,690	\$1,399,298	\$1,791,537	\$2,026,151	\$3,817,688	\$2,707,146	\$2,509,840	\$5,216,986
44M	Tenkiller Lake Airpark	Cookson	1.0	1.0	2.0	\$16,923	\$10,886	\$27,808	\$34,052	\$32,169	\$66,221	\$50,975	\$43,054	\$94,029
F36	Cordell Municipal Airport	Cordell	2.0	1.5	3.5	\$67,873	\$44,937	\$112,810	\$123,819	\$103,483	\$227,302	\$191,691	\$148,420	\$340,111

TABLE 15 – TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FOR EACH OKLAHOMA AIRPORT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
CUH	Cushing Municipal Airport	Cushing	39.8	25.1	64.9	\$1,629,726	\$1,142,348	\$2,772,074	\$1,646,381	\$1,244,833	\$2,891,214	\$3,276,107	\$2,387,181	\$5,663,288
DUC	Halliburton Field Airport	Duncan	26.5	19.9	46.4	\$1,173,372	\$916,750	\$2,090,122	\$1,532,112	\$1,040,795	\$2,572,907	\$2,705,484	\$1,957,545	\$4,663,028
DUA	Durant Regional Airport - Eaker Field	Durant	48.1	26.0	74.0	\$1,635,875	\$1,196,849	\$2,832,724	\$2,772,556	\$2,305,535	\$5,078,091	\$4,408,431	\$3,502,384	\$7,910,815
RQO	El Reno Regional Airport	El Reno	33.5	26.0	59.5	\$1,448,852	\$1,220,713	\$2,669,565	\$1,783,177	\$799,950	\$2,583,127	\$3,232,029	\$2,020,662	\$5,252,691
ELK	Elk City Regional Business Airport	Elk City	30.5	25.9	56.4	\$1,808,230	\$1,160,999	\$2,969,229	\$1,633,789	\$1,090,635	\$2,724,424	\$3,442,020	\$2,251,634	\$5,693,653
WDG	Enid Woodring Regional Airport	Enid	173.0	120.3	293.3	\$6,524,425	\$4,825,522	\$11,349,947	\$11,309,981	\$6,541,814	\$17,851,796	\$17,834,407	\$11,367,336	\$29,201,743
F08	Eufaula Municipal Airport	Eufaula	2.0	1.5	3.5	\$57,686	\$46,091	\$103,777	\$164,338	\$128,984	\$293,322	\$222,024	\$175,075	\$397,099
0F7	Fountainhead Lodge Airpark	Eufaula	0.5	0.5	1.0	\$11,158	\$6,785	\$17,944	\$19,196	\$22,989	\$42,185	\$30,355	\$29,774	\$60,129
6K4	Fairview Municipal Airport	Fairview	9.5	5.9	15.4	\$344,370	\$247,924	\$592,293	\$1,065,138	\$611,040	\$1,676,178	\$1,409,507	\$858,964	\$2,268,471
FDR	Frederick Regional Airport	Frederick	9.0	7.0	16.0	\$297,885	\$285,825	\$583,710	\$909,101	\$730,673	\$1,639,775	\$1,206,987	\$1,016,498	\$2,223,484
GAG	Gage Airport	Gage	1.5	1.5	3.0	\$49,089	\$38,121	\$87,210	\$112,247	\$92,016	\$204,262	\$161,335	\$130,137	\$291,472
1K4	David Jay Perry Airport	Goldsby	7.0	6.0	13.0	\$235,470	\$220,732	\$456,202	\$709,424	\$591,238	\$1,300,663	\$944,894	\$811,970	\$1,756,865
1O1	Grandfield Municipal Airport	Grandfield	3.5	2.8	6.3	\$162,049	\$108,316	\$270,365	\$591,547	\$288,668	\$880,214	\$753,596	\$396,983	\$1,150,579
GMJ	Grove Regional Airport	Grove	21.5	13.6	35.1	\$720,909	\$680,851	\$1,401,759	\$1,474,457	\$1,091,667	\$2,566,125	\$2,195,366	\$1,772,518	\$3,967,884
GOK	Guthrie-Edmond Regional Airport	Guthrie	111.0	83.8	194.8	\$4,398,587	\$3,308,102	\$7,706,689	\$7,478,702	\$4,048,146	\$11,526,847	\$11,877,288	\$7,356,248	\$19,233,536
GUY	Guymon Municipal Airport	Guymon	38.5	20.5	59.0	\$1,234,079	\$916,323	\$2,150,403	\$2,444,935	\$1,514,183	\$3,959,118	\$3,679,015	\$2,430,506	\$6,109,521
F32	Healdton Municipal Airport	Healdton	0.5	0.5	1.0	\$11,274	\$3,698	\$14,972	\$2,496	\$1,768	\$4,264	\$13,770	\$5,467	\$19,236
F10	Henryetta Municipal Airport	Henryetta	1.0	0.5	1.5	\$36,598	\$13,620	\$50,218	\$46,699	\$33,038	\$79,737	\$83,298	\$46,658	\$129,956
2O8	Hinton Municipal Airport	Hinton	3.0	2.0	5.0	\$87,268	\$81,466	\$168,733	\$220,823	\$183,384	\$404,208	\$308,091	\$264,850	\$572,941
HBR	Hobart Regional Airport	Hobart	8.0	5.7	13.7	\$288,431	\$216,641	\$505,072	\$514,522	\$364,698	\$879,220	\$802,953	\$581,338	\$1,384,292
F99	Holdenville Municipal Airport	Holdenville	4.0	3.3	7.3	\$182,893	\$138,667	\$321,560	\$230,266	\$118,794	\$349,060	\$413,159	\$257,460	\$670,620
O35	Hollis Municipal Airport	Hollis	7.5	5.3	12.8	\$354,201	\$225,703	\$579,904	\$321,706	\$186,983	\$508,689	\$675,907	\$412,685	\$1,088,593
H92	Hominy Municipal Airport	Hominy	1.0	1.0	2.0	\$22,159	\$14,199	\$36,359	\$37,254	\$29,707	\$66,960	\$59,413	\$43,906	\$103,319
O45	Hooker Municipal Airport	Hooker	4.5	2.9	7.4	\$177,909	\$119,865	\$297,774	\$420,203	\$236,141	\$656,344	\$598,112	\$356,006	\$954,119
HHW	Stan Stamper Municipal Airport	Hugo	18.0	11.0	29.0	\$866,165	\$551,897	\$1,418,062	\$883,243	\$780,111	\$1,663,354	\$1,749,408	\$1,332,008	\$3,081,416
4O4	McCurtain County Regional Airport	Idabel	11.5	6.7	18.2	\$348,756	\$280,909	\$629,665	\$855,287	\$664,147	\$1,519,433	\$1,204,043	\$945,056	\$2,149,099
1K8	South Grand Lake Regional Airport	Ketchum	12.0	8.0	20.0	\$416,827	\$367,053	\$783,880	\$892,961	\$668,819	\$1,561,780	\$1,309,788	\$1,035,872	\$2,345,660
F92	Kingfisher Airport	Kingfisher	7.5	5.0	12.5	\$255,467	\$176,971	\$432,438	\$594,741	\$344,479	\$939,220	\$850,208	\$521,450	\$1,371,657
F31	Lake Texoma State Park Airport	Kingston	0.5	0.5	1.0	\$12,705	\$7,886	\$20,591	\$23,189	\$25,452	\$48,642	\$35,895	\$33,338	\$69,233
O51	Laverne Municipal Airport	Laverne	2.5	0.9	3.4	\$45,898	\$29,082	\$74,980	\$318,527	\$125,108	\$443,635	\$364,425	\$154,191	\$518,615
1K2	Lindsay Municipal Airport	Lindsay	1.5	1.5	3.0	\$55,328	\$50,318	\$105,646	\$156,578	\$135,029	\$291,607	\$211,906	\$185,347	\$397,254
1F4	Madill Municipal Airport	Madill	3.5	3.0	6.5	\$98,443	\$81,925	\$180,367	\$174,897	\$124,692	\$299,589	\$273,340	\$206,616	\$479,956

TABLE 15 – TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FOR EACH OKLAHOMA AIRPORT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
2K4	Scott Field Airport	Mangum	2.0	2.0	4.0	\$68,348	\$58,767	\$127,115	\$180,267	\$143,054	\$323,322	\$248,616	\$201,821	\$450,437
MLC	McAlester Regional Airport	McAlester	65.0	40.6	105.6	\$2,628,922	\$1,854,919	\$4,483,842	\$3,687,897	\$2,808,095	\$6,495,992	\$6,316,820	\$4,663,014	\$10,979,834
O53	Medford Municipal Airport	Medford	3.5	3.1	6.6	\$117,329	\$81,892	\$199,221	\$188,199	\$127,277	\$315,475	\$305,528	\$209,169	\$514,696
MIO	Miami Regional Airport	Miami	18.5	14.8	33.3	\$881,601	\$689,416	\$1,571,016	\$1,673,544	\$1,079,252	\$2,752,796	\$2,555,144	\$1,768,668	\$4,323,812
MDF	Mooreland Municipal Airport	Mooreland	0.5	0.5	1.0	\$22,771	\$23,599	\$46,370	\$81,935	\$71,943	\$153,878	\$104,707	\$95,542	\$200,249
MKO	Muskogee Davis Regional Airport	Muskogee	48.5	21.1	69.6	\$1,229,136	\$911,033	\$2,140,169	\$3,515,425	\$2,132,291	\$5,647,717	\$4,744,561	\$3,043,324	\$7,787,885
OUN	University of Oklahoma Westheimer Airport	Norman	236.5	157.9	394.4	\$9,152,901	\$7,445,503	\$16,598,404	\$12,237,178	\$8,593,275	\$20,830,453	\$21,390,079	\$16,038,778	\$37,428,857
O65	Christman Airfield	Okeene	9.0	6.7	15.7	\$411,348	\$280,994	\$692,342	\$454,661	\$293,679	\$748,340	\$866,009	\$574,673	\$1,440,681
F81	Okemah Flying Field Airport	Okemah	1.5	1.5	3.0	\$101,123	\$97,809	\$198,932	\$314,419	\$263,717	\$578,137	\$415,543	\$361,526	\$777,069
RCE	Clarence E Page Municipal Airport	Oklahoma City	58.0	59.8	117.8	\$2,198,930	\$2,178,900	\$4,377,830	\$3,854,025	\$3,362,630	\$7,216,655	\$6,052,956	\$5,541,530	\$11,594,486
PWA	Wiley Post Airport	Oklahoma City	874.5	761.8	1636.3	\$40,424,641	\$39,169,298	\$79,593,938	\$60,209,540	\$47,938,801	\$108,148,341	\$100,634,181	\$87,108,098	\$187,742,279
OKM	Okmulgee Regional Airport	Okmulgee	87.5	78.6	166.1	\$3,766,694	\$3,776,491	\$7,543,185	\$4,526,877	\$3,902,890	\$8,429,768	\$8,293,571	\$7,679,382	\$15,972,953
PVJ	Pauls Valley Municipal Airport	Pauls Valley	17.0	13.6	30.6	\$722,778	\$672,094	\$1,394,872	\$2,288,024	\$1,564,461	\$3,852,485	\$3,010,802	\$2,236,555	\$5,247,357
H76	Pawhuska Municipal Airport	Pawhuska	2.5	2.2	4.7	\$78,160	\$55,093	\$133,253	\$118,655	\$90,858	\$209,513	\$196,815	\$145,951	\$342,766
F22	Perry Municipal Airport	Perry	15.0	14.1	29.1	\$875,196	\$654,567	\$1,529,763	\$1,556,002	\$1,140,249	\$2,696,251	\$2,431,198	\$1,794,816	\$4,226,014
PNC	Ponca City Regional Airport	Ponca City	34.5	26.7	61.2	\$2,475,393	\$1,246,940	\$3,722,334	\$3,241,128	\$3,144,696	\$6,385,824	\$5,716,522	\$4,391,636	\$10,108,157
RKR	Robert S Kerr Airport	Poteau	11.0	5.3	16.3	\$332,386	\$292,414	\$624,800	\$886,192	\$760,615	\$1,646,807	\$1,218,578	\$1,053,029	\$2,271,607
O47	Prague Municipal Airport	Prague	3.5	2.5	6.0	\$96,495	\$90,677	\$187,172	\$293,358	\$238,256	\$531,614	\$389,852	\$328,933	\$718,786
H71	Mid-America Industrial Airport	Pryor	16.0	9.9	25.9	\$680,570	\$453,344	\$1,133,914	\$1,147,662	\$965,558	\$2,113,219	\$1,828,232	\$1,418,902	\$3,247,134
3O3	Purcell Municipal Airport - Steven E. Shepard Field	Purcell	4.0	3.0	7.0	\$118,467	\$110,538	\$229,005	\$347,362	\$280,251	\$627,613	\$465,829	\$390,789	\$856,619
JSV	Sallisaw Municipal Airport	Sallisaw	16.0	18.3	34.3	\$853,696	\$717,681	\$1,571,377	\$1,318,395	\$675,428	\$1,993,823	\$2,172,091	\$1,393,109	\$3,565,200
OWP	William R. Pogue Municipal Airport	Sand Springs	26.0	12.5	38.5	\$758,829	\$600,040	\$1,358,869	\$1,941,574	\$1,392,818	\$3,334,392	\$2,700,404	\$1,992,858	\$4,693,262
3O4	Sayre Municipal Airport	Sayre	2.5	1.5	4.0	\$72,452	\$54,330	\$126,782	\$157,419	\$127,262	\$284,681	\$229,871	\$181,592	\$411,463
SRE	Seminole Municipal Airport	Seminole	25.0	21.5	46.5	\$1,087,034	\$797,872	\$1,884,906	\$1,453,429	\$1,220,811	\$2,674,240	\$2,540,463	\$2,018,683	\$4,559,147
SNL	Shawnee Regional Airport	Shawnee	60.0	37.1	97.1	\$2,144,367	\$1,574,789	\$3,719,156	\$4,659,053	\$3,488,212	\$8,147,265	\$6,803,420	\$5,063,001	\$11,866,421
2F6	Skiatook Municipal Airport	Skiatook	8.0	4.7	12.7	\$315,837	\$194,359	\$510,196	\$549,561	\$507,715	\$1,057,276	\$865,398	\$702,073	\$1,567,472
GZL	Stigler Regional Airport	Stigler	7.5	3.5	11.0	\$176,577	\$146,196	\$322,773	\$443,929	\$335,162	\$779,091	\$620,506	\$481,358	\$1,101,864
SUD	Stroud Municipal Airport	Stroud	1.5	1.5	3.0	\$60,112	\$57,444	\$117,556	\$183,164	\$155,896	\$339,060	\$243,276	\$213,340	\$456,617
F30	Sulphur Municipal Airport	Sulphur	1.0	1.0	2.0	\$34,106	\$29,566	\$63,672	\$91,939	\$81,822	\$173,762	\$126,046	\$111,388	\$237,434
TQH	Tahlequah Municipal Airport	Tahlequah	14.5	11.7	26.2	\$953,760	\$1,020,280	\$1,974,041	\$1,998,871	\$1,736,305	\$3,735,176	\$2,952,631	\$2,756,585	\$5,709,217
6F1	Talihina Municipal Airport	Talihina	1.5	1.0	2.5	\$20,344	\$17,843	\$38,187	\$54,707	\$44,407	\$99,115	\$75,051	\$62,250	\$137,302
K49	Texhoma Municipal Airport	Texhoma	2.5	2.5	5.0	\$101,533	\$63,483	\$165,016	\$104,015	\$85,587	\$189,603	\$205,549	\$149,070	\$354,619

TABLE 15 – TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FOR EACH OKLAHOMA AIRPORT

FAA ID	Airport Name	Associated City	Employment			Payroll			Spending			Annual Economic Activity		
			Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total	Direct	Indirect/Induced	Total
1O4	Thomas Municipal Airport	Thomas	14.5	15.4	29.9	\$1,092,814	\$950,472	\$2,043,286	\$1,254,730	\$784,778	\$2,039,508	\$2,347,543	\$1,735,251	\$4,082,794
1O8	Tipton Municipal Airport	Tipton	0.5	0.5	1.0	\$12,464	\$5,040	\$17,504	\$10,512	\$7,609	\$18,121	\$22,975	\$12,649	\$35,625
0F9	Tishomingo Airpark	Tishomingo	1.5	1.5	3.0	\$62,437	\$55,461	\$117,898	\$169,173	\$138,771	\$307,945	\$231,611	\$194,232	\$425,843
RVS	Richard Lloyd Jones Jr Airport	Tulsa	545.0	340.1	885.1	\$20,008,508	\$15,902,869	\$35,911,377	\$34,463,588	\$24,563,286	\$59,026,874	\$54,472,096	\$40,466,155	\$94,938,251
H04	Vinita Municipal Airport	Vinita	3.0	1.5	4.5	\$86,357	\$70,620	\$156,977	\$224,540	\$174,649	\$399,188	\$310,897	\$245,268	\$556,165
H68	Hefner-Easley Airport	Wagoner	2.5	2.0	4.5	\$60,422	\$45,089	\$105,511	\$132,559	\$105,501	\$238,060	\$192,981	\$150,590	\$343,571
3O5	Walters Municipal Airport	Walters	2.5	2.3	4.8	\$119,817	\$80,384	\$200,200	\$201,097	\$124,851	\$325,948	\$320,914	\$205,235	\$526,148
JWG	Watonga Regional Airport	Watonga	8.5	4.7	13.2	\$310,658	\$210,690	\$521,348	\$452,532	\$313,035	\$765,567	\$763,191	\$523,725	\$1,286,916
1K5	Waynoka Municipal Airport	Waynoka	1.0	1.0	2.0	\$40,493	\$36,232	\$76,724	\$112,869	\$99,326	\$212,195	\$153,362	\$135,558	\$288,920
OJA	Thomas P Stafford Airport	Weatherford	26.5	21.7	48.2	\$1,212,690	\$1,031,052	\$2,243,742	\$2,480,330	\$1,577,358	\$4,057,688	\$3,693,020	\$2,608,410	\$6,301,430
4F1	Westport Airport	Westport	0.5	0.5	1.0	\$14,295	\$9,016	\$23,310	\$27,281	\$27,983	\$55,264	\$41,576	\$36,998	\$78,574
H05	Wilburton Municipal Airport	Wilburton	1.5	1.5	3.0	\$61,883	\$56,195	\$118,078	\$173,138	\$141,283	\$314,421	\$235,021	\$197,479	\$432,499
WWR	West Woodward Airport	Woodward	23.0	13.8	36.8	\$723,152	\$664,601	\$1,387,753	\$1,251,002	\$1,023,387	\$2,274,389	\$1,974,154	\$1,687,988	\$3,662,142
Total Commercial Service Airports			37,548	30,144	67,692	\$1,864,687,281	\$1,509,381,565	\$3,374,068,847	\$3,672,148,988	\$2,888,447,489	\$6,560,596,477	\$5,536,836,269	\$4,397,829,054	\$9,934,665,323
Total General Aviation Airports			3,595	2,715	6,310	\$148,131,562	\$122,318,196	\$270,449,757	\$243,911,510	\$178,640,328	\$422,551,837	\$392,043,071	\$300,958,523	\$693,001,594
<b>Total All Airports</b>			<b>41,144</b>	<b>32,859</b>	<b>74,002</b>	<b>\$2,012,818,843</b>	<b>\$1,631,699,761</b>	<b>\$3,644,518,604</b>	<b>\$3,916,060,498</b>	<b>\$3,067,087,816</b>	<b>\$6,983,148,314</b>	<b>\$5,928,879,341</b>	<b>\$4,698,787,577</b>	<b>\$10,627,666,918</b>

Source: Airport Managers, Airport Tenants, Study Surveys, OAC, USDOT, FAA, IMPLAN, Oklahoma Department of Commerce, and MANTA

## 6.0 TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FOR ALL OKLAHOMA AIRPORTS

Annual direct, indirect/induced, and total economic impacts have been estimated for each of the 109 commercial and general aviation airports in Oklahoma. Summed, these airport specific impacts equal total statewide economic impacts for each of the five economic impact activity centers. Total statewide annual economic impacts for all airports are summarized in **Table 16**, **Table 17**, **Table 18**, **Table 19**, and **Table 20**.

TABLE 16 – TOTAL STATEWIDE ANNUAL ECONOMIC IMPACTS FROM AIRPORT MANAGEMENT

Employment		
Direct	Indirect/Induced	Total
517	319	836
Payroll		
Direct	Indirect/Induced	Total
\$21,868,296	\$14,755,988	\$36,624,283
Spending		
Direct	Indirect/Induced	Total
\$46,188,833	\$51,387,023	\$97,575,856
Annual Economic Activity		
Direct	Indirect/Induced	Total
\$ 68,057,129	\$66,143,011	\$134,200,139

Primary Source: Airport Managers

TABLE 17 – TOTAL STATEWIDE ANNUAL ECONOMIC IMPACTS FROM AIRPORT TENANTS

Employment		
Direct	Indirect/Induced	Total
21,708	24,790	46,499
Payroll		
Direct	Indirect/Induced	Total
\$1,539,132,059	\$1,269,778,808	\$2,808,910,867
Spending		
Direct	Indirect/Induced	Total
\$2,574,422,605	\$2,301,714,537	\$4,876,137,142
Annual Economic Activity		
Direct	Indirect/Induced	Total
\$4,113,554,664	\$3,571,493,345	\$7,685,048,008

Primary Source: Airport Tenants

TABLE 18 – STATEWIDE ANNUAL ECONOMIC IMPACTS FROM ALL AVERAGE ANNUAL CAPITAL INVESTMENT

Employment		
Direct	Indirect/Induced	Total
1,224	1,035	2,259
Payroll		
Direct	Indirect/Induced	Total
\$47,351,372	\$47,967,647	\$95,319,019
Spending		
Direct	Indirect/Induced	Total
\$152,110,623	\$124,720,828	\$276,831,452
Annual Economic Activity		
Direct	Indirect/Induced	Total
\$199,461,995	\$172,688,475	\$372,150,471

Primary Source: Airport Managers, Tenants, OAC, FAA

TABLE 19 – STATEWIDE ANNUAL ECONOMIC IMPACTS FROM ALL GENERAL AVIATION VISITOR SPENDING

Employment		
Direct	Indirect/Induced	Total
1,940	699	2,639
Payroll		
Direct	Indirect/Induced	Total
\$42,913,469	\$30,729,735	\$73,643,205
Spending		
Direct	Indirect/Induced	Total
\$118,500,851	\$61,063,902	\$179,564,753
Annual Economic Activity		
Direct	Indirect/Induced	Total
\$161,414,320	\$91,793,637	\$253,207,957

Source: Airport Managers, Study Surveys, AOPA

TABLE 20 – STATEWIDE ANNUAL ECONOMIC IMPACTS FROM ALL COMMERCIAL VISITOR SPENDING

Employment		
Direct	Indirect/Induced	Total
15,755	6,015	21,770
Payroll		
Direct	Indirect/Induced	Total
\$361,553,647	\$268,467,583	\$630,021,230
Spending		
Direct	Indirect/Induced	Total
\$1,024,837,586	\$528,201,526	\$1,553,039,112
Annual Economic Activity		
Direct	Indirect/Induced	Total
\$1,386,391,233	\$796,669,109	\$2,183,060,342

Source: Study Surveys and USDOT

**Table 16, Table 17, Table 18, Table 19, and Table 20** present total annual statewide economic impacts for all 109 Oklahoma airports for each of the five economic activity centers examined in this study. The sum of these five impact categories represents total annual economic impacts for the 109 commercial and general aviation airports included in this study. **Table 21 – Total Annual Statewide Economic Impacts From All Impact Categories For All 109 Oklahoma Airports** presents total annual employment, payroll, and spending for all 109 Oklahoma airports, as they were estimated in this study.

TABLE 21 – TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FROM ALL IMPACT CATEGORIES FOR ALL 109 OKLAHOMA AIRPORTS

	Employment		
	Direct	Indirect/Induced	Total
Airport Management	517	319	836
Airport Tenants	21,708	24,790	46,499
Capital Investments	1,224	1,035	2,259
General Aviation Visitors	1,940	699	2,639
Commercial Visitors	15,755	6,015	21,770
<b>Total</b>	<b>41,144</b>	<b>32,858</b>	<b>74,002</b>
	Payroll		
	Direct	Indirect/Induced	Total
Airport Management	\$21,868,296	\$14,755,988	\$36,624,283
Airport Tenants	\$1,539,132,059	\$1,269,778,808	\$2,808,910,867
Capital Investments	\$47,351,372	\$47,967,647	\$95,319,019
General Aviation Visitors	\$42,913,469	\$30,729,735	\$73,643,205

TABLE 21 – TOTAL ANNUAL STATEWIDE ECONOMIC IMPACTS FROM ALL IMPACT CATEGORIES FOR ALL 109 OKLAHOMA AIRPORTS

Commercial Visitors	\$361,553,647	\$268,467,583	\$630,021,230
<b>Total</b>	<b>\$2,012,818,843</b>	<b>\$1,631,699,761</b>	<b>\$3,644,518,604</b>
	<b>Spending</b>		
	<b>Direct</b>	<b>Indirect/Induced</b>	<b>Total</b>
Airport Management	\$46,188,833	\$51,387,023	\$97,575,856
Airport Tenants	\$2,574,422,605	\$2,301,714,537	\$4,876,137,142
Capital Investments	\$152,110,623	\$124,720,828	\$276,831,452
General Aviation Visitors	\$118,500,851	\$61,063,902	\$179,564,753
Commercial Visitors	\$1,024,837,586	\$528,201,526	\$1,553,039,112
<b>Total</b>	<b>\$3,916,060,498</b>	<b>\$3,067,087,816</b>	<b>\$6,983,148,314</b>
	<b>Annual Economic Activity</b>		
	<b>Direct</b>	<b>Indirect/Induced</b>	<b>Total</b>
Airport Management	\$68,057,129	\$66,143,011	\$134,200,139
Airport Tenants	\$4,113,554,664	\$3,571,493,345	\$7,685,048,008
Capital Investments	\$199,461,995	\$172,688,475	\$372,150,471
General Aviation Visitors	\$161,414,320	\$91,793,637	\$253,207,957
Commercial Visitors	\$1,386,391,233	\$796,669,109	\$2,183,060,342
<b>Total</b>	<b>\$5,928,879,341</b>	<b>\$4,698,787,577</b>	<b>\$10,627,666,918</b>

Source: OAC Study Analysis

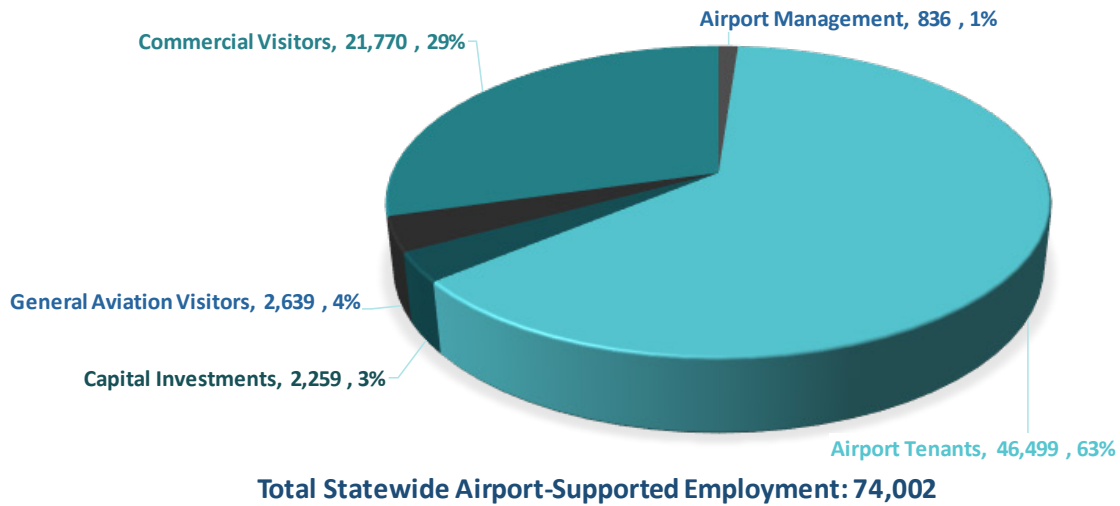
As shown in **Table 21**, this Statewide Aviation Economic Impact Study estimates the following total annual statewide economic impacts for all 109 public airports in Oklahoma:

- Total Jobs: 74,000
- Total Annual Payroll: \$3.6 billion
- Total Annual Spending: \$7.0 billion
- Total Annual Economic Activity \$10.6 billion

**Figure 2 – Percent of Total Statewide Airport Employment Impact by Activity Center, Figure 3 – Percent of Total Statewide Airport Payroll Economic Impacts by Activity Center, and Figure 4 – Percent of Total Statewide Airport Spending Economic Impacts by Activity Center** help summarize the information presented in **Table 21**. These figures show the percent contribution made by each of the five activity centers that contribute to total statewide employment, payroll, and spending estimated in this study for all public airports.

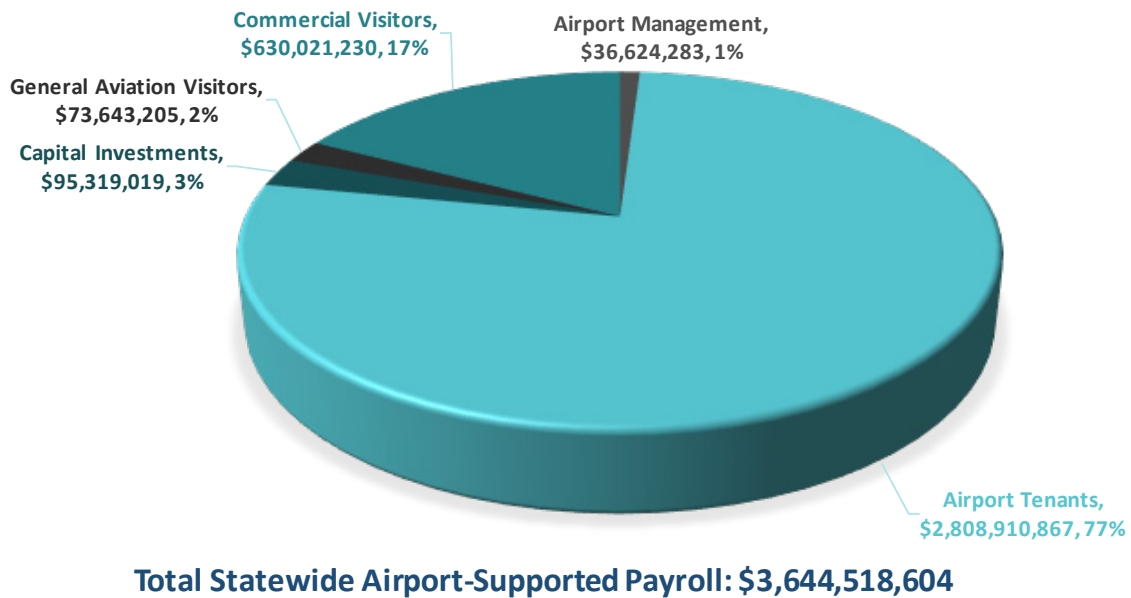


FIGURE 2 – PERCENT OF TOTAL STATEWIDE AIRPORT EMPLOYMENT IMPACT BY ACTIVITY CENTER



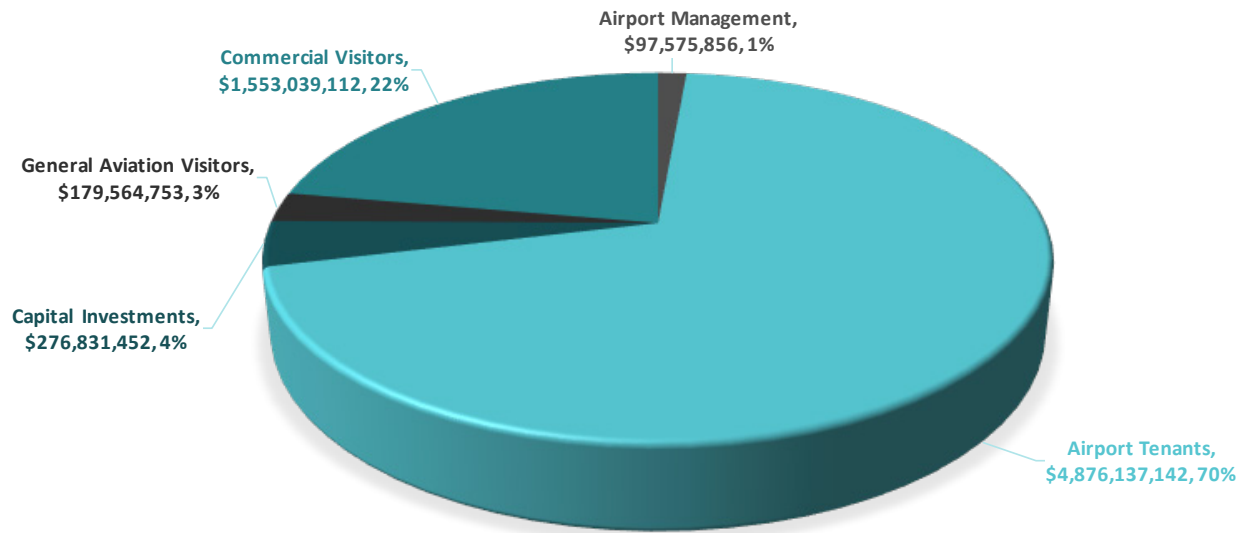
Source: OAC Study Analysis

FIGURE 3 – PERCENT OF TOTAL STATEWIDE AIRPORT PAYROLL ECONOMIC IMPACTS BY ACTIVITY CENTER



Source: OAC Study Analysis

FIGURE 4 – PERCENT OF TOTAL STATEWIDE AIRPORT SPENDING ECONOMIC IMPACTS BY ACTIVITY CENTER



**Total Statewide Airport-Supported Spending: \$6,983,148,314**

Source: OAC Study Analysis

## 7.0 STATEWIDE TAX REVENUE ANALYSIS FOR OKLAHOMA COMMERCIAL AND GENERAL AVIATION AIRPORTS

As part of the OAC Statewide Aviation Economic Impact Study, analysis was undertaken to estimate annual tax revenues that Oklahoma realizes from the 109 commercial and general aviation airports. Analysis shows that on an annual basis the airports and airport supported activities in Oklahoma contribute an almost \$500 million in tax revenues to state and local governments.

This section of the technical report documents tax revenue generated from direct economic impacts associated with the study airports and the activities they support. For this portion of the study analysis, estimates of tax revenue come only from “direct” airport-related economic impacts identified earlier in this report. This conservative approach was taken to prevent overstating the value of airport associated tax revenues in Oklahoma.

The section of the report provides:

- An overview of how and where airport-supported activities become a taxable event.
- What specific taxes are relevant.
- Estimates of tax revenues, statewide and for individual Oklahoma airports.

### 7.1 Taxable Events for Activities Associated with Oklahoma Airports

Taxes estimated in this analysis are associated with the following types of taxable events:

- *Sales tax on the taxable portion of goods and services purchased by airports and airport tenants.* Each year, airport management and airport tenants purchase goods and supplies that enable them to operate. Some of these expenditures are subject to sales tax.

- *Sales tax on the taxable portion of spending to support the implementation of capital projects.* Most airports have spending (purchases of goods, materials, and supplies) to implement capital improvement projects. These expenditures are subject to a sales tax.
- *Sales tax paid by employees in Oklahoma whose jobs are supported by the airports or airport related activities.* In Oklahoma, as this study has documented, airport management, airport tenants, capital spending, and air visitor spending all support direct employment. All airport associated employees use part of their income (payroll) each year on expenditures that are subject to sales tax.
- *Sales tax paid by visitors to Oklahoma.* When visitors come to Oklahoma on a commercial airline flight or on a general aviation aircraft, they often have expenditures for lodging, food, rental cars, entertainment, and retail purchases. These expenditures are subject to sales tax.
- *State income tax paid by all workers whose jobs are supported by the airports or airport activities.* The payroll for all direct jobs in the airport management, airport tenant, capital investment, and air visitor categories is subject to Oklahoma's state income tax.

The following portions of this section discuss tax revenues that are generated by the activities noted above.

## 7.2 Sales Tax Applicable to Airport Supported Activities

Sales taxes are the most important component of airport related tax revenue. For this analysis, sales tax is associated with:

- Purchases made by airports (some are exempt),
- Purchases made by airport tenants,
- Purchases made to support airport capital improvement projects,
- Purchases made by visitors, and
- Purchases by employees whose jobs are supported by airports and airport associated activities.

Sales taxes are levied at the state and local level. Oklahoma law allows the imposition of sales and use taxes by counties and cities, under certain circumstances. Local sales and use taxes that can be levied in Oklahoma include, but are not limited to, county taxes, municipal taxes, and lodging taxes. The state sales and use tax rate is 4.5%.

Published local (counties and cities) sales and use and lodging tax rates range from 0% to 8%. Not all counties and cities have adopted a local lodging tax. Fifty-three (53) communities with a lodging tax have tax rates ranging from 3% to 8%. For this study, an effective statewide lodging tax rate of 5.01% was used. This tax rate is based on average rates. This statewide effective tax rate for lodging is associated with visitor spending. When visitors fly to Oklahoma and spend one or more nights, it is unknown where (specific county/city) in Oklahoma lodging occurs. Therefore, the effective tax rate was used to estimate sales tax generated in association with visitor expenditures for lodging.

The state tax rate for rental cars is 6%.

For other transactions in Oklahoma that are subject to a sales tax, the total tax paid is the sum of the applicable sales tax for the state and for the jurisdiction where the purchase takes place. For example, in Tulsa the sales and use tax is the sum the state tax (4.5%), plus the county tax (0.917%), plus the city tax (3.100%), for a total sales tax of 8.52%. For sales taxes related to lodging and/or car rental in Oklahoma, the appropriate local tax rate, plus the effective state tax rate of 5.01% for lodging tax or the effective tax rate of 6% for rental cars is added to the sales tax transaction.

**Table 22 – Oklahoma State and Local Sales/Use Tax Rates as of November 2016** lists the applicable state and local sales tax rates associated with Oklahoma’s airports, including lodging and car rental taxes.

TABLE 22 – OKLAHOMA STATE AND LOCAL SALES/USE TAX RATES AS OF NOVEMBER 2016

Associated City	Airport Name	Associated County	State Sales/Use Tax Rate	County Sales/Use Tax Rate	City Sales/Use Tax Rate	Statewide	
						Effective Lodging Tax Rate *	Vehicle Rental Tax Rate
Lawton	Lawton-Fort Sill Regional Airport	Comanche	4.50%	0.375%	4.125%	5.01%	6%
Oklahoma City	Will Rogers World Airport	Oklahoma	4.50%	0.000%	3.875%	5.01%	6%
Stillwater	Stillwater Regional Airport	Payne	4.50%	0.813%	3.500%	5.01%	6%
Tulsa	Tulsa International Airport	Tulsa	4.50%	0.917%	3.100%	5.01%	6%
Ada	Ada Municipal Airport	Pontotoc	4.50%	0.875%	4.00%	5.01%	6%
Altus	Altus/Quartz Mountain Regional Airport	Jackson	4.50%	0.500%	3.75%	5.01%	6%
Alva	Alva Regional Airport	Woods	4.50%	0.500%	4.25%	5.01%	6%
Anadarko	Anadarko Municipal Airport	Caddo	4.50%	1.500%	3.50%	5.01%	6%
Antlers	Antlers Municipal Airport	Pushmataha	4.50%	2.000%	3.50%	5.01%	6%
Ardmore	Ardmore Downtown Executive	Carter	4.50%	0.750%	3.75%	5.01%	6%
Ardmore	Ardmore Municipal	Carter	4.50%	0.750%	3.75%	5.01%	6%
Atoka	Atoka Municipal Airport	Atoka	4.50%	2.000%	4.00%	5.01%	6%
Bartlesville	Bartlesville Municipal Airport	Osage	4.50%	1.250%	3.40%	5.01%	6%
Beaver	Beaver Municipal Airport	Beaver	4.50%	2.000%	3.00%	5.01%	6%
Blackwell	Blackwell-Tonkawa Municipal Airport	Kay	4.50%	0.667%	5.00%	5.01%	6%
Boise City	Boise City Airport	Cimarron	4.50%	2.000%	3.00%	5.01%	6%
Bristow	Jones Memorial Airport	Creek	4.50%	1.000%	5.00%	5.01%	6%
Broken Bow	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	McCurtain	4.50%	1.750%	3.00%	5.01%	6%
Buffalo	Buffalo Municipal Airport	Harper	4.50%	2.000%	3.00%	5.01%	6%
Canadian	Carlton Landing Field	Pittsburg	4.50%	1.500%	4.50%	5.01%	6%
Carnegie	Carnegie Municipal Airport	Caddo	4.50%	1.500%	4.00%	5.01%	6%
Chandler	Chandler Regional Airport	Lincoln	4.50%	1.000%	4.00%	5.01%	6%
Chattanooga	Chattanooga Sky Harbor Airport	Tillman	4.50%	1.500%	3.00%	5.01%	6%
Cherokee	Cherokee Municipal Airport	Alfalfa	4.50%	2.000%	3.25%	5.01%	6%
Cheyenne	Mignon Laird Municipal Airport	Roger Mills	4.50%	1.500%	3.00%	5.01%	6%
Chickasha	Chickasha Municipal Airport	Grady	4.50%	0.750%	3.75%	5.01%	6%
Claremore	Claremore Regional Airport	Rogers	4.50%	1.833%	3.00%	5.01%	6%
Cleveland	Cleveland Municipal Airport	Pawnee	4.50%	2.000%	3.50%	5.01%	6%

TABLE 22 – OKLAHOMA STATE AND LOCAL SALES/USE TAX RATES AS OF NOVEMBER 2016

Associated City	Airport Name	Associated County	State Sales/Use Tax Rate	County Sales/Use Tax Rate	City Sales/Use Tax Rate	Statewide	
						Effective Lodging Tax Rate *	Vehicle Rental Tax Rate
Clinton	Clinton Regional Airport	Custer	4.50%	0.500%	4.50%	5.01%	6%
Clinton	Clinton-Sherman Airport	Washita	4.50%	2.000%	4.00%	5.01%	6%
Cookson	Tenkiller Lake Airpark	Cherokee	4.50%	1.750%	0.00%	5.01%	6%
Cordell	Cordell Municipal Airport	Washita	4.50%	2.000%	3.00%	5.01%	6%
Cushing	Cushing Municipal Airport	Payne	4.50%	0.813%	4.00%	5.01%	6%
Duncan	Halliburton Field Airport	Stephens	4.50%	0.700%	3.50%	5.01%	6%
Durant	Durant Regional Airport - Eaker Field	Bryan	4.50%	0.500%	4.38%	5.01%	6%
El Reno	El Reno Regional Airport	Canadian	4.50%	0.350%	4.00%	5.01%	6%
Elk City	Elk City Regional Business Airport	Beckham	4.50%	0.300%	4.50%	5.01%	6%
Enid	Enid Woodring Regional Airport	Garfield	4.50%	0.350%	3.50%	5.01%	6%
Eufaula	Eufaula Municipal Airport	McIntosh	4.50%	2.000%	3.50%	5.01%	6%
Eufaula	Fountainhead Lodge Airpark	McIntosh	4.50%	2.000%	3.50%	5.01%	6%
Fairview	Fairview Municipal Airport	Major	4.50%	1.250%	4.00%	5.01%	6%
Frederick	Frederick Regional Airport	Tillman	4.50%	1.500%	3.50%	5.01%	6%
Gage	Gage Airport	Ellis	4.50%	2.000%	3.00%	5.01%	6%
Goldsby	David Jay Perry Airport	McClain	4.50%	0.500%	3.50%	5.01%	6%
Grandfield	Grandfield Municipal Airport	Tillman	4.50%	1.500%	3.00%	5.01%	6%
Grove	Grove Regional Airport	Delaware	4.50%	1.400%	3.40%	5.01%	6%
Guthrie	Guthrie-Edmond Regional Airport	Logan	4.50%	0.750%	3.75%	5.01%	6%
Guymon	Guymon Municipal Airport	Texas	4.50%	1.000%	4.00%	5.01%	6%
Healdton	Healdton Municipal Airport	Carter	4.50%	0.750%	4.50%	5.01%	6%
Henryetta	Henryetta Municipal Airport	Okmulgee	4.50%	1.250%	4.00%	5.01%	6%
Hinton	Hinton Municipal Airport	Caddo	4.50%	1.500%	3.00%	5.01%	6%
Hobart	Hobart Regional Airport	Kiowa	4.50%	0.500%	4.00%	5.01%	6%
Holdenville	Holdenville Municipal Airport	Hughes	4.50%	1.000%	5.00%	5.01%	6%
Hollis	Hollis Municipal Airport	Harmon	4.50%	2.000%	3.00%	5.01%	6%
Hominy	Hominy Municipal Airport	Osage	4.50%	1.250%	3.50%	5.01%	6%
Hooker	Hooker Municipal Airport	Texas	4.50%	1.000%	4.00%	5.01%	6%
Hugo	Stan Stamper Municipal Airport	Choctaw	4.50%	2.000%	3.50%	5.01%	6%
Idabel	McCurtain County Regional Airport	McCurtain	4.50%	1.750%	3.00%	5.01%	6%

TABLE 22 – OKLAHOMA STATE AND LOCAL SALES/USE TAX RATES AS OF NOVEMBER 2016

Associated City	Airport Name	Associated County	State Sales/Use Tax Rate	County Sales/Use Tax Rate	City Sales/Use Tax Rate	Statewide	
						Effective Lodging Tax Rate *	Vehicle Rental Tax Rate
Ketchum	South Grand Lake Regional Airport	Craig	4.50%	2.000%	3.00%	5.01%	6%
Kingfisher	Kingfisher Airport	Kingfisher	4.50%	1.250%	3.50%	5.01%	6%
Kingston	Lake Texoma State Park Airport	Marshall	4.50%	2.000%	3.00%	5.01%	6%
Laverne	Laverne Municipal Airport	Harper	4.50%	2.000%	2.25%	5.01%	6%
Lindsay	Lindsay Municipal Airport	Garvin	4.50%	0.750%	4.00%	5.01%	6%
Madill	Madill Municipal Airport	Marshall	4.50%	2.000%	3.00%	5.01%	6%
Mangum	Scott Field Airport	Greer	4.50%	2.000%	3.00%	5.01%	6%
McAlester	McAlester Regional Airport	Pittsburg	4.50%	1.500%	3.50%	5.01%	6%
Medford	Medford Municipal Airport	Grant	4.50%	1.250%	4.00%	5.01%	6%
Miami	Miami Regional Airport	Ottawa	4.50%	1.350%	3.65%	5.01%	6%
Mooreland	Mooreland Municipal Airport	Woodward	4.50%	0.900%	4.00%	5.01%	6%
Muskogee	Muskogee Davis Regional Airport	Muskogee	4.50%	0.650%	4.00%	5.01%	6%
Norman	University of Oklahoma Westheimer Airport	Cleveland	4.50%	0.250%	4.00%	5.01%	6%
Okeene	Christman Airfield	Blaine	4.50%	0.750%	4.25%	5.01%	6%
Okemah	Okemah Flying Field Airport	Okfuskee	4.50%	1.250%	3.50%	5.01%	6%
Oklahoma City	Clarence E Page Municipal Airport	Canadian	4.50%	0.350%	4.00%	5.01%	6%
Oklahoma City	Wiley Post Airport	Oklahoma	4.50%	0.000%	4.00%	5.01%	6%
Okmulgee	Okmulgee Regional Airport	Okmulgee	4.50%	1.250%	4.00%	5.01%	6%
Pauls Valley	Pauls Valley Municipal Airport	Garvin	4.50%	0.750%	4.50%	5.01%	6%
Pawhuska	Pawhuska Municipal Airport	Osage	4.50%	1.250%	3.00%	5.01%	6%
Perry	Perry Municipal Airport	Noble	4.50%	1.500%	3.25%	5.01%	6%
Ponca City	Ponca City Regional Airport	Kay	4.50%	0.667%	3.50%	5.01%	6%
Poteau	Robert S Kerr Airport	Le Flore	4.50%	2.000%	3.00%	5.01%	6%
Prague	Prague Municipal Airport	Lincoln	4.50%	1.000%	4.00%	5.01%	6%
Pryor	Mid-America Industrial Airport	Mayes	4.50%	1.500%	3.75%	5.01%	6%
Purcell	Purcell Municipal Airport - Steven E. Shepard Field	McClain	4.50%	0.500%	4.00%	5.01%	6%
Sallisaw	Sallisaw Municipal Airport	Sequoyah	4.50%	1.417%	4.00%	5.01%	6%
Sand Springs	William R. Pogue Municipal Airport	Osage	4.50%	1.250%	3.50%	5.01%	6%
Sayre	Sayre Municipal Airport	Beckham	4.50%	0.300%	4.00%	5.01%	6%
Seminole	Seminole Municipal Airport	Seminole	4.50%	1.250%	4.00%	5.01%	6%

TABLE 22 – OKLAHOMA STATE AND LOCAL SALES/USE TAX RATES AS OF NOVEMBER 2016

Associated City	Airport Name	Associated County	State Sales/Use Tax Rate	County Sales/Use Tax Rate	City Sales/Use Tax Rate	Statewide	
						Effective Lodging Tax Rate *	Vehicle Rental Tax Rate
Shawnee	Shawnee Regional Airport	Pottawatomie	4.50%	1.495%	3.00%	5.01%	6%
Skiatook	Skiatook Municipal Airport	Osage	4.50%	1.250%	3.50%	5.01%	6%
Stigler	Stigler Regional Airport	Haskell	4.50%	2.000%	3.50%	5.01%	6%
Stroud	Stroud Municipal Airport	Lincoln	4.50%	1.000%	4.00%	5.01%	6%
Sulphur	Sulphur Municipal Airport	Murray	4.50%	2.000%	3.00%	5.01%	6%
Tahlequah	Tahlequah Municipal Airport	Cherokee	4.50%	1.750%	3.25%	5.01%	6%
Talihina	Talihina Municipal Airport	Latimer	4.50%	1.750%	3.00%	5.01%	6%
Texhoma	Texhoma Municipal Airport	Texas	4.50%	1.000%	3.00%	5.01%	6%
Thomas	Thomas Municipal Airport	Custer	4.50%	0.500%	4.00%	5.01%	6%
Tipton	Tipton Municipal Airport	Tillman	4.50%	1.500%	4.00%	5.01%	6%
Tishomingo	Tishomingo Airpark	Johnston	4.50%	1.500%	3.00%	5.01%	6%
Tulsa	Richard Lloyd Jones Jr Airport	Tulsa	4.50%	0.917%	3.10%	5.01%	6%
Vinita	Vinita Municipal Airport	Craig	4.50%	2.000%	3.00%	5.01%	6%
Wagoner	Hefner-Easley Airport	Wagoner	4.50%	1.300%	3.00%	5.01%	6%
Walters	Walters Municipal Airport	Cotton	4.50%	2.000%	3.00%	5.01%	6%
Watonga	Watonga Regional Airport	Blaine	4.50%	0.750%	5.00%	5.01%	6%
Waynoka	Waynoka Municipal Airport	Woods	4.50%	0.500%	4.00%	5.01%	6%
Weatherford	Thomas P Stafford Airport	Custer	4.50%	0.500%	4.00%	5.01%	6%
Westport	Westport Airport	Pawnee	4.50%	2.000%	0.00%	5.01%	6%
Wilburton	Wilburton Municipal Airport	Latimer	4.50%	1.750%	3.50%	5.01%	6%
Woodward	West Woodward Airport	Woodward	4.50%	0.900%	4.00%	5.01%	6%

Source: Oklahoma Tax Commission

\*Note: Effective lodging tax rates were developed by Marr Arnold Planning based on lodging tax rates from 53 counties and/or cities.

State income tax is applicable to all payroll associated with employees in Oklahoma who have an airport or an airport supported job. This includes all direct jobs identified in this study that are associated with airport management, airport tenants, jobs supported by capital spending, and jobs supported by visitor spending. Similar to the federal government, Oklahoma has a state income tax rate that applies higher tax rates to higher income levels. Income tax brackets in Oklahoma range from 0.05% at the lowest level, to a top rate of 5.25%.

## 7.3 Sales and Income Tax Revenues from Commercial and General Aviation Airports in Oklahoma

Economic impact studies estimate jobs, payroll, and spending associated with different groups either engaged directly in airport activities or in visitor services. For this OAC study, economic impacts for direct jobs, payroll, and spending were estimated for each of the following activities:

- Airport management
- Tenants (aviation businesses) at airports
- Spending for capital improvements at airports
- Spending by commercial aviation visitors
- Spending by general aviation visitors

Each of these categories help to contribute the sales tax revenues estimated in this section of the report. The approach adopted for this tax analysis is bottom-up. Estimates of tax revenues attributed to airports and airport supported activities were developed for each airport, as they relate direct economic impacts for jobs, payroll, and spending. These bottom-up impacts are then summed to reflect statewide sales and income tax impacts.

### 7.3.1 Sales Taxes Generated by Direct Airport Management Spending

Sales taxes associated with airport management were estimated considering data reported by each airport on its annual spending for goods and supplies that are needed to operate the airport. The airport's applicable sales tax rate (see **Table 22**) was then applied to the estimated taxable annual spending for airport management. Estimates of sales tax associated with the airport management category were generated using the following generalized formula:

$$\text{Sales Taxes} = (\text{Taxable Annual Spending} \times \text{Sales Tax Rate}) / (1 + \text{Sales Tax Rate})$$

Statewide tax revenues from direct airport management spending are presented in **Table 23 – Estimated Oklahoma Statewide Sales Tax Revenues from Direct Airport and Airport-Supported Activities**. On an annual basis, statewide sales tax revenues generated from spending for good, services, and supplies needed to operate the state's public airport system is estimated at \$3.8 million.

### 7.3.2 Sales Taxes Generated by Direct Airport Tenant Spending

Sales tax revenues associated with airport tenants were estimated considering data reported by each tenant on its annual spending for goods and supplies needed to operate their business. The applicable sales tax rate for the airport where the tenant is located (see **Table 23**) was then applied to the estimated annual spending for airport tenants. Estimates of sales tax revenues associated with the airport tenant category were generated using the following generalized formula:

$$\text{Sales Taxes} = (\text{Annual Spending} \times \text{Sales Tax Rate}) / (1 + \text{Sales Tax Rate})$$

Statewide tax revenues from direct airport tenant spending are presented in **Table 23**. On an annual basis, statewide sales tax revenues generated from tenant spending for good, services, and supplies are estimated at \$210.7 million.



### 7.3.3 Sales Tax Generated by Direct Capital Investment Spending

Most of the 109 study airports had some reported average annual investment/spending to support capital improvement projects. This investment was primarily attributable to state and federal grants and the local funds used to leverage these grants; but in some cases, private/third party capital spending was also identified for tenants. Capital spending, collected in this study, reflected both the cost of labor to implement projects, as well as the cost of goods, materials, and supplies that were required for constructing the project. For this analysis, sales tax applies only to the portion of the capital spending that relates to the purchase of goods, materials, and supplies. To identify just this portion of each airport’s capital spending, payroll was subtracted from the total capital spending estimates provided by OAC, FAA, airports, and airport tenants.

The applicable sales tax rate for the airport was applied to estimated expenditures for goods, material, and supplies used to implement capital improvements. The following generalized formulas were used to estimate sales tax revenue associated with capital spending:

$$\text{Taxable Expenditures} = \text{Direct Spending} - \text{Direct Payroll}$$

$$\text{Sales Taxes} = (\text{Taxable Expenditures} \times \text{Sales Tax Rate}) / (1 + \text{Sales Tax Rate})$$

Statewide tax revenues from direct capital investment spending are presented in **Table 23**. This analysis estimated that approximately \$12.6 million in annual state sales tax revenues come from average annual capital investments at the 109 public airports.

### 7.3.4 Sales Tax Generated by Direct Visitor Spending

Considerable effort went into surveying visitors arriving at Oklahoma’s airports to track expenditure patterns for lodging, restaurants, retail purchases, rental cars, and entertainment. For each airport, total annual visitors were estimated, and surveys (conducted specifically for this study) were used to collect information on visitor expenditures in Oklahoma. Spending from visitors arriving on a commercial airline flight are applicable only to the four commercial airports.

Sales tax rates are different, depending upon the expenditure category: lodging, food, rental car, retail, or entertainment. Sales tax revenues collected in association with visitor spending provide a significant annual benefit to the state and local communities in Oklahoma. The calculation of sales tax revenues associated with visitor spending is represented by the following formula:

$$\text{Sales Taxes} = (\text{Visitor Expenditure by Category} \times \text{Sales Tax Rate}) / (1 + \text{Sales Tax Rate})$$

Statewide sales tax revenues from direct spending from commercial and general aviation visitors are presented in **Table 23**. Annually, this study estimated that spending by air visitors results in approximately \$140.5 million in annual sales tax revenues.

### 7.3.5 Sales Tax Generated in Association with Direct Airport and Airport Supported Employees

The Internal Revenue Service (IRS) has correlated average annual sales tax paid with various levels of income (payroll). As part of this study, direct jobs and associated direct annual payroll were both estimated for airport management, airport tenants, jobs supported by capital spending, and jobs supported by visitor spending.

Using the IRS Sales Tax Deduction Calculator, sales tax paid by all employees whose job is directly supported by airport management, an airport tenant, airport/tenant related capital improvement investment, and/or

visitor spending were calculated. The generalized formulas used to determine estimated sales tax paid in associate with the payroll related to airport/airport supported employees included:

$$\text{Average Income} = \text{Direct Payroll} / \text{Number of Direct Employees}$$

$$\text{Sales Taxes Paid per Employee per Average Income} = \text{LookUp on IRS Sale Tax Calculator to determine annual sales tax}$$

$$\text{Sales Taxes per Airport} = \text{Sales Tax Paid per Employee} \times \text{Number of Direct Employees}$$

Estimates of sales tax revenues in this category were built for every Oklahoma airport, based on average income per employee. The assumptions used for determining annual sales tax paid per employee, using the IRS Sales Tax Deduction Calculator, considered the following criteria:

- 2016 tax year
- Appropriate income range based on average income formula discussed above
- One (1) exemption claimed on 2016 tax return
- Zip code based for the airport’s associated city/county
- Employee resided at determined zip code for all of 2016 tax year

Statewide sales tax revenues associated with direct spending from airport and airport supported employees are presented in **Table 23**. Annual sales tax revenues in this category are estimated at \$42.5 million.

**7.3.6 State Income Tax Generated in Association with Direct Airport and Direct Airport Supported Employees**

Using an Oklahoma Income Tax Calculator, obtained from SmartAsset.com, state income taxes paid by all employees whose job is directly support by an airport (management or tenant) or an airport supported activity (construction/visitor spending) were estimated. Using the following formula generated the estimate for state income tax revenue:

$$\text{Average Income} = \text{Direct Payroll} / \text{Number of Direct Employees}$$

$$\text{Average State Income Tax Paid per Employee per Average Income} = \text{LookUp on Oklahoma Income Tax Calculator}$$

$$\text{State Income Taxes Paid per Airport} = \text{State Income Tax Paid per Employee} \times \text{Number of Direct Employees}$$

Estimates of state income tax were developed for each Oklahoma airport based on average income per direct airport employee or airport supported employee. Average income was determined by dividing direct employees in each impact category by direct payroll.

An average income tax rate was developed based on the average income for each airport/airport supported employee. The methodology for determining average state income tax paid per employee, using the Oklahoma Income Tax Calculator on [SmartAsset.com](http://SmartAsset.com), was based on the 2016 tax year and used the average of single (with one exemption) and married (with two exemptions) status for income tax filing.

Statewide income tax revenues associated with the payroll of employees whose jobs are supported directly by the airports or by airport associated activities are presented in **Table 23**. Annual tax revenues in the income tax category were estimated at \$70.8 million in this analysis.

## 7.4 Summary of Statewide Sales and Income Tax Revenues from Oklahoma Airports

Table 23 provides a summary of statewide sales tax and income tax revenues by category.

TABLE 23 – ESTIMATED OKLAHOMA STATEWIDE SALES TAX REVENUES FROM DIRECT AIRPORT & AIRPORT-SUPPORTED ACTIVITIES

Source	Estimated Tax
<b>Sales Tax Airport Management</b>	\$3,847,777
<b>Sales Tax Airport Tenants</b>	\$210,721,763
<b>Sales Tax Airport and Tenant Capital Investment</b>	\$12,594,179
<b>Commercial Service Visitor Sales Tax</b>	
– Lodging	\$62,023,250
– Retail	\$13,209,533
– Restaurant	\$22,255,302
– Rental Car	\$29,284,930
– Entertainment	\$13,742,008
<b>Subtotal</b>	<b>\$140,515,024</b>
<b>General Aviation Visitor Sales Tax</b>	
– Lodging	\$6,538,099
– Retail	\$1,201,270
– Restaurant	\$3,501,361
– Rental Car	\$4,451,552
– Entertainment	\$1,092,394
<b>Subtotal</b>	<b>\$16,784,675</b>
<b>Employee Sales Taxes</b>	
– Airport Employees	\$520,772
– Airport Tenant Employees	\$27,786,157
– Airport Construction Employees	\$1,101,802
– Employees Supporting Commercial Visitors	\$11,626,172
– Employees Supporting General Aviation Visitors	\$1,475,300
<b>Subtotal</b>	<b>\$42,510,203</b>
<b>State Income Tax</b>	
– Airport Employees	\$698,395
– Airport Tenant Employees	\$62,480,109
– Airport Construction Employees	\$1,392,344
– Employees Supporting Commercial Visitors	\$5,543,035

TABLE 23 – ESTIMATED OKLAHOMA STATEWIDE SALES TAX REVENUES FROM DIRECT AIRPORT & AIRPORT-SUPPORTED ACTIVITIES

Source	Estimated Tax
– Employees Supporting General Aviation Visitors	\$702,255
<b>Subtotal</b>	<b>\$70,816,139</b>
<b>All Taxes</b>	<b>\$497,789,759</b>

Source: Marr Arnold Planning.

**Table 24 – Sales Taxes Generated by Activity at Oklahoma Commercial Service and General Aviation Airports** summarizes estimates of sales tax and income tax revenues attributable to Oklahoma’s commercial service and general aviation airports.

TABLE 24 – SALES TAXES GENERATED BY ACTIVITY AT OKLAHOMA COMMERCIAL SERVICE AND GENERAL AVIATION AIRPORTS

Sales Taxes Generated by:	Airports		
	Commercial	General Aviation	All Airports
Airport Management	\$2,585,141	\$1,262,636	\$3,847,777
Airport Tenants	\$199,745,659	\$10,976,104	\$210,721,763
Airport & Tenant Investment	\$9,475,774	\$3,118,405	\$12,594,179
Commercial Service Visitors	\$140,515,024	\$0	\$140,515,024
General Aviation Visitors	\$7,354,125	\$9,430,550	\$16,784,675
Airport, Construction, & Visitor Employees	\$38,955,314	\$3,554,888	\$42,510,203
<b>Total</b>	<b>\$398,631,037</b>	<b>\$28,342,583</b>	<b>\$426,973,620</b>
<b>Percent</b>	<b>93%</b>	<b>7%</b>	<b>100%</b>

Source: Marr Arnold Planning.

Similar to **Table 24**, **Table 25 – State Income Taxes Generated by Activity at Oklahoma Commercial Service and General Aviation Airports** shows the portion of state income tax revenues that are attributable to the commercial and the general aviation airports.

TABLE 25 – STATE INCOME TAXES GENERATED BY ACTIVITY AT OKLAHOMA COMMERCIAL SERVICE AND GENERAL AVIATION AIRPORTS

State Income Taxes Generated by:	Airports		
	Commercial	General Aviation	All Airports
Airport Employees	\$506,173	\$192,222	\$698,395
Airport Tenant Employees	\$58,689,677	\$3,790,432	\$62,480,109
Airport Construction Employees	\$1,065,022	\$327,322	\$1,392,344
Employees Supporting Commercial Visitors	\$5,543,035	\$0	\$5,543,035

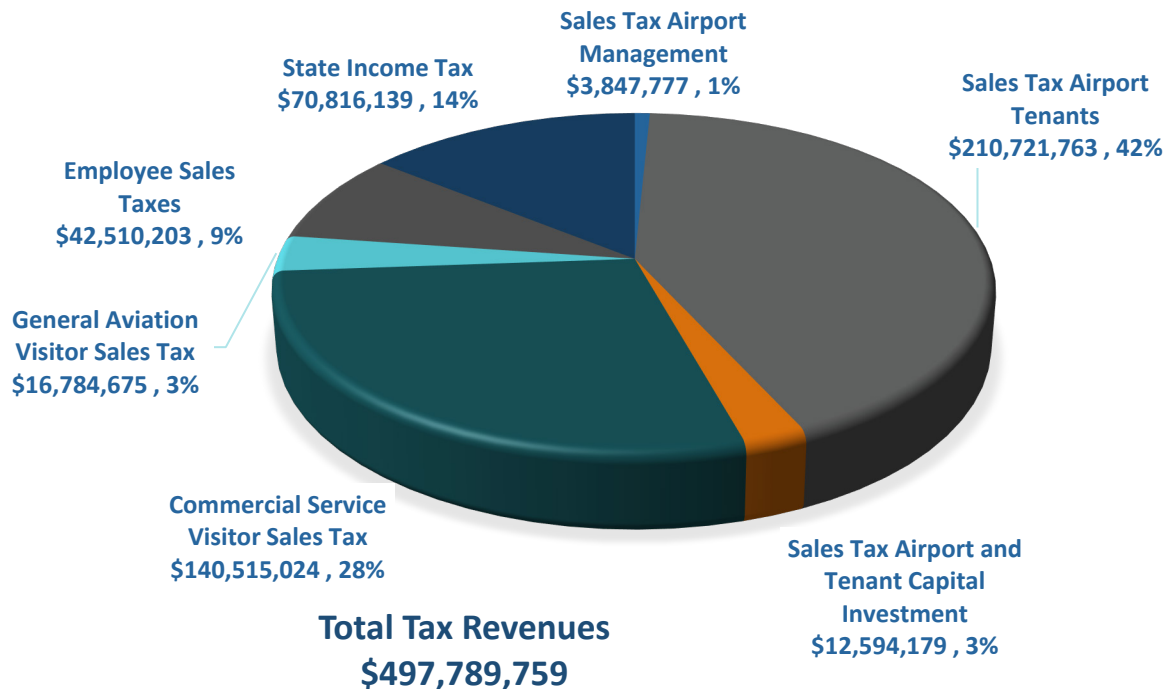
TABLE 25 – STATE INCOME TAXES GENERATED BY ACTIVITY AT OKLAHOMA COMMERCIAL SERVICE AND GENERAL AVIATION AIRPORTS

State Income Taxes Generated by:	Airports		
	Commercial	General Aviation	All Airports
Employees Supporting General Aviation Visitors	\$311,992	\$390,264	\$702,255
<b>Total</b>	<b>\$66,115,899</b>	<b>\$4,700,240</b>	<b>\$70,816,139</b>
<b>Percent</b>	<b>93%</b>	<b>7%</b>	<b>100%</b>

Source: Marr Arnold Planning.

**Figure 5 – Contributions to Airport and Airport Supported Sales Tax and Income Tax Revenues** shows the relative contribution of each type of taxable transaction to overall statewide tax revenues associated with airports and airport supported activity. Statewide, this study estimated that when all tax revenue contributors are considered, state and local governments realize almost \$500 million in annual tax revenues from airport and airport supported activities. The largest contributors to state and local tax revenues are sales taxes paid by airport tenants (42% and \$210.7 million) and sales taxes paid by visitors that arrive in Oklahoma on commercial aircraft (28% and \$140.5 million). These two contributors account for 70% of all tax revenues estimated in this analysis.

FIGURE 5 – CONTRIBUTIONS TO AIRPORT AND AIRPORT SUPPORTED SALES TAX AND INCOME TAX REVENUES

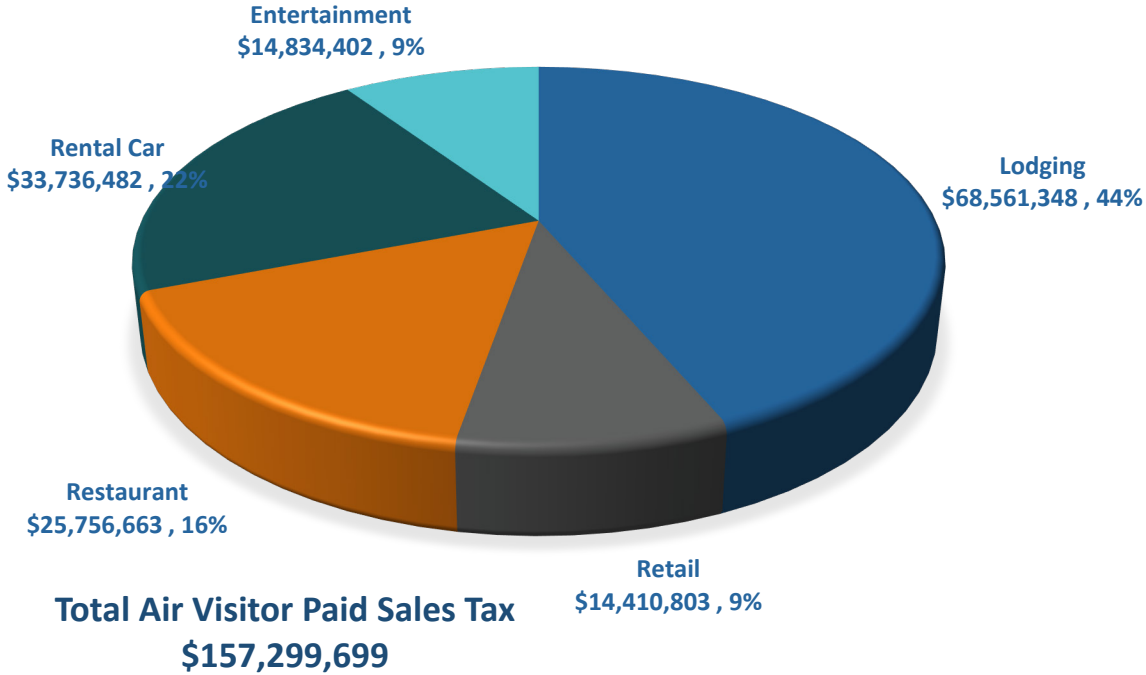


Source: Marr Arnold Planning.

**Figure 6 – Distribution of Visitor Paid Sales Taxes by Type of Expenditure** details sales tax revenues associated with expenditures made by visitors (commercial and general aviation) arriving at Oklahoma commercial service or general aviation airports. Visitors account for about \$1.5 billion in annual spending and \$157.3 million in

annual tax revenues. The highest percentage of visitor expenditures is for lodging and rental cars. Information presented in **Figure 6** reflects spending by visitors arriving by both commercial and general aviation aircraft to Oklahoma.

FIGURE 6 – DISTRIBUTION OF VISITOR PAID SALES TAXES BY TYPE OF EXPENDITURE



Source: Marr Arnold Planning.

### 7.5 Sales and Income Tax Revenues Associated with Each of the 109 Oklahoma Airports

**Table 26, Table 27, Table 28,** and **Table 29** detail estimated state and local sales taxes and income tax revenues associated with each of Oklahoma’s 109 public airports. While these tables provide information on individual tax revenue sources, **Table 29** provides a summary of all tax revenues (sales and income tax) that are generated directly by the 109 study airports and the activities they support.

This analysis, focused on sales taxes and state income taxes collected in connection with the 109 study airports, estimated total annual tax revenues to be almost \$500 million. The state of Oklahoma, its counties, and municipalities each benefit from taxes revenues that stem from the airports and the activities they support.

TABLE 26 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY AIRPORTS, COMPANIES, AND VISITORS

FAA ID	City	Airport Name	Airport	Companies		Visitors	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
LAW	Lawton	Lawton-Fort Sill Regional Airport	\$45,067	\$413,146	\$107,033	\$1,580,299	\$706,063
OKC	Oklahoma City	Will Rogers World Airport	\$1,533,638	\$60,941,785	\$5,250,145	\$73,401,195	\$2,567,292
SWO	Stillwater	Stillwater Regional Airport	\$78,293	\$520,724	\$202,943	\$1,361,044	\$955,881
TUL	Tulsa	Tulsa International Airport	\$928,142	\$137,870,004	\$3,915,653	\$64,172,487	\$3,124,889
<b>Total Commercial Airports Tax Contribution</b>			<b>\$2,585,141</b>	<b>\$199,745,659</b>	<b>\$9,475,774</b>	<b>\$140,515,024</b>	<b>\$7,354,125</b>
ADH	Ada	Ada Municipal Airport	\$7,247	\$564,441	\$134,377		\$112,759
AXS	Altus	Altus/Quartz Mountain Regional Airport	\$34,935	\$284,931	\$22,336		\$77,232
AVK	Alva	Alva Regional Airport	\$28,528	\$171,817	\$11,416		\$43,461
F68	Anadarko	Anadarko Municipal Airport	\$5,596	\$14,665	\$8,270		\$1,318
80F	Antlers	Antlers Municipal Airport	\$2,702	\$0	\$10,239		\$4,299
1F0	Ardmore	Ardmore Downtown Executive	\$15,058	\$87,925	\$23,031		\$43,387
ADM	Ardmore	Ardmore Municipal	\$103,981	\$370,840	\$144,021		\$497,277
AQR	Atoka	Atoka Municipal Airport	\$2,221	\$0	\$15,251		\$3,333
BVO	Bartlesville	Bartlesville Municipal Airport	\$52,974	\$299,464	\$37,438		\$135,599
K44	Beaver	Beaver Municipal Airport	\$643	\$0	\$962		\$997
BKN	Blackwell	Blackwell-Tonkawa Municipal Airport	\$9,341	\$72,980	\$11,338		\$6,632
17K	Boise City	Boise City Airport	\$766	\$8,069	\$6,620		\$7,983
3F7	Bristow	Jones Memorial Airport	\$2,243	\$160,855	\$100,684		\$10,914
90F	Broken Bow	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	\$5,967	\$0	\$2,522		\$885
BFK	Buffalo	Buffalo Municipal Airport	\$872	\$0	\$9,680		\$266
91F	Canadian	Carlton Landing Field	\$1,766	\$0	\$20,776		\$1,018
86F	Carnegie	Carnegie Municipal Airport	\$242	\$0	\$12,440		\$923

TABLE 26 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY AIRPORTS, COMPANIES, AND VISITORS

FAA ID	City	Airport Name	Airport	Companies		Visitors	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
CQB	Chandler	Chandler Regional Airport	\$19,336	\$16,216	\$21,334		\$24,161
92F	Chattanooga	Chattanooga Sky Harbor Airport	\$1,522	\$2,261	\$4,490		\$4,045
4O5	Cherokee	Cherokee Municipal Airport	\$471	\$0	\$10,624		\$2,639
93F	Cheyenne	Mignon Laird Municipal Airport	\$696	\$0	\$256		\$3,213
CHK	Chickasha	Chickasha Municipal Airport	\$15,597	\$67,478	\$11,680		\$40,512
GCM	Claremore	Claremore Regional Airport	\$8,929	\$96,447	\$49,770		\$196,474
95F	Cleveland	Cleveland Municipal Airport	\$1,689	\$59,012	\$5,180		\$1,531
CLK	Clinton	Clinton Regional Airport	\$26,419	\$21,759	\$20,429		\$43,928
CSM	Clinton	Clinton-Sherman Airport	\$76,232	\$92,646	\$7,712		\$8,081
44M	Cookson	Tenkiller Lake Airpark	\$1,055	\$0	\$0		\$1,989
F36	Cordell	Cordell Municipal Airport	\$1,377	\$0	\$9,410		\$934
CUH	Cushing	Cushing Municipal Airport	\$1,702	\$67,152	\$9,510		\$117,183
DUC	Duncan	Halliburton Field Airport	\$3,697	\$60,785	\$22,088		\$72,252
DUA	Durant	Durant Regional Airport - Eaker Field	\$13,169	\$107,250	\$24,585		\$176,922
RQO	El Reno	El Reno Regional Airport	\$22,561	\$95,328	\$5,039		\$49,250
ELK	Elk City	Elk City Regional Business Airport	\$23,348	\$66,715	\$25,928		\$50,248
WDG	Enid	Enid Woodring Regional Airport	\$47,791	\$456,803	\$144,005		\$444,146
F08	Eufaula	Eufaula Municipal Airport	\$339	\$0	\$12,100		\$4,488
0F7	Eufaula	Fountainhead Lodge Airpark	\$1,689	\$0	\$0		\$275
6K4	Fairview	Fairview Municipal Airport	\$1,699	\$57,730	\$27,232		\$22,225
FDR	Frederick	Frederick Regional Airport	\$376	\$0	\$76,177		\$11,581
GAG	Gage	Gage Airport	\$110	\$0	\$9,899		\$422
1K4	Goldsby	David Jay Perry Airport	\$7,203	\$0	\$44,432		\$11,451



TABLE 26 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY AIRPORTS, COMPANIES, AND VISITORS

FAA ID	City	Airport Name	Airport	Companies		Visitors	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
101	Grandfield	Grandfield Municipal Airport	\$870	\$43,483	\$6,066		\$1,783
GMJ	Grove	Grove Regional Airport	\$14,181	\$22,543	\$58,485		\$62,502
GOK	Guthrie	Guthrie-Edmond Regional Airport	\$18,285	\$377,736	\$42,256		\$348,803
GUY	Guymon	Guymon Municipal Airport	\$4,937	\$50,373	\$50,205		\$194,370
F32	Healdton	Healdton Municipal Airport	\$47	\$0	\$0		\$318
F10	Henryetta	Henryetta Municipal Airport	\$1,643	\$0	\$0		\$3,653
208	Hinton	Hinton Municipal Airport	\$1,839	\$0	\$15,004		\$4,000
HBR	Hobart	Hobart Regional Airport	\$10,002	\$14,670	\$8,848		\$18,251
F99	Holdenville	Holdenville Municipal Airport	\$785	\$21,867	\$0		\$848
O35	Hollis	Hollis Municipal Airport	\$459	\$27,245	\$865		\$1,642
H92	Hominy	Hominy Municipal Airport	\$248	\$0	\$2,569		\$876
O45	Hooker	Hooker Municipal Airport	\$3,200	\$23,204	\$11,055		\$1,642
HHW	Hugo	Stan Stamper Municipal Airport	\$10,479	\$56,894	\$8,722		\$16,086
404	Idabel	McCurtain County Regional Airport	\$6,371	\$0	\$48,466		\$38,513
1K8	Ketchum	South Grand Lake Regional Airport	\$9,914	\$4,590	\$38,910		\$47,714
F92	Kingfisher	Kingfisher Airport	\$892	\$34,334	\$13,822		\$6,665
F31	Kingston	Lake Texoma State Park Airport	\$1,606	\$0	\$0		\$892
O51	Laverne	Laverne Municipal Airport	\$1,482	\$25,402	\$0		\$152
1K2	Lindsay	Lindsay Municipal Airport	\$1,229	\$0	\$12,251		\$779
1F4	Madill	Madill Municipal Airport	\$734	\$4,586	\$8,692		\$3,486
2K4	Mangum	Scott Field Airport	\$46	\$0	\$14,242		\$3,859
MLC	McAlester	McAlester Regional Airport	\$13,407	\$151,706	\$37,065		\$221,664
O53	Medford	Medford Municipal Airport	\$1,760	\$5,970	\$4,954		\$8,573

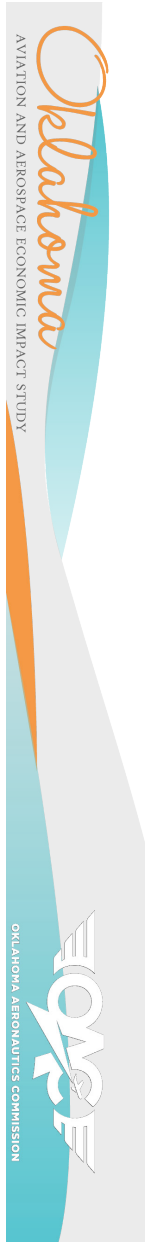


TABLE 26 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY AIRPORTS, COMPANIES, AND VISITORS

FAA ID	City	Airport Name	Airport	Companies		Visitors	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
MIO	Miami	Miami Regional Airport	\$10,350	\$81,981	\$41,268		\$32,825
MDF	Mooreland	Mooreland Municipal Airport	\$4,093	\$0	\$2,312		\$1,731
MKO	Muskogee	Muskogee Davis Regional Airport	\$8,798	\$103,932	\$60,591		\$224,078
OUN	Norman	University of Oklahoma Westheimer Airport	\$154,592	\$258,427	\$68,104		\$921,173
O65	Okeene	Christman Airfield	\$913	\$29,025	\$10,763		\$1,370
F81	Okemah	Okemah Flying Field Airport	\$1,561	\$0	\$25,679		\$1,127
RCE	Oklahoma City	Clarence E Page Municipal Airport	\$21,253	\$231,590	\$46,871		\$48,222
PWA	Oklahoma City	Wiley Post Airport	\$73,371	\$3,340,926	\$225,518		\$2,159,012
OKM	Okmulgee	Okmulgee Regional Airport	\$13,351	\$354,558	\$13,000		\$73,175
PVJ	Pauls Valley	Pauls Valley Municipal Airport	\$2,283	\$134,618	\$56,500		\$35,066
H76	Pawhuska	Pawhuska Municipal Airport	\$1,479	\$3,584	\$3,568		\$2,458
F22	Perry	Perry Municipal Airport	\$19,695	\$77,194	\$22,616		\$31,575
PNC	Ponca City	Ponca City Regional Airport	\$61,209	\$125,545	\$14,721		\$119,952
RKR	Poteau	Robert S Kerr Airport	\$20,452	\$17,496	\$23,765		\$32,524
O47	Prague	Prague Municipal Airport	\$1,371	\$0	\$21,856		\$6,049
H71	Pryor	Mid-America Industrial Airport	\$28,759	\$29,720	\$33,948		\$25,716
3O3	Purcell	Purcell Municipal Airport - Steven E. Shepard Field	\$519	\$0	\$27,604		\$3,364
JSV	Sallisaw	Sallisaw Municipal Airport	\$11,813	\$93,569	\$10,935		\$15,894
OWP	Sand Springs	William R. Pogue Municipal Airport	\$30,425	\$39,669	\$57,532		\$77,275
3O4	Sayre	Sayre Municipal Airport	\$1,690	\$0	\$11,133		\$848
SRE	Seminole	Seminole Municipal Airport	\$4,224	\$57,844	\$55,523		\$31,427
SNL	Shawnee	Shawnee Regional Airport	\$29,167	\$197,639	\$75,285		\$171,307
2F6	Skiatook	Skiatook Municipal Airport	\$4,283	\$25,166	\$15,911		\$6,225

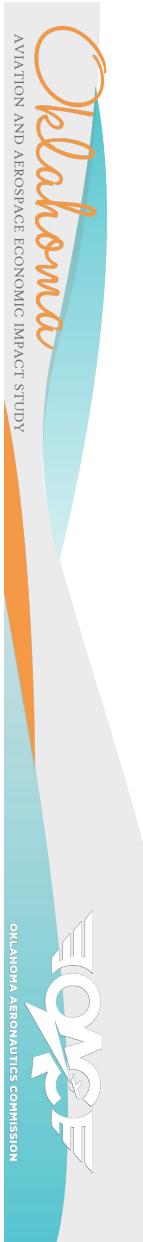


TABLE 26 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY AIRPORTS, COMPANIES, AND VISITORS

FAA ID	City	Airport Name	Airport	Companies		Visitors	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
GZL	Stigler	Stigler Regional Airport	\$3,956	\$0	\$21,528		\$30,876
SUD	Stroud	Stroud Municipal Airport	\$2,364	\$0	\$13,613		\$1,318
F30	Sulphur	Sulphur Municipal Airport	\$1,606	\$0	\$6,311		\$892
TQH	Tahlequah	Tahlequah Municipal Airport	\$28,319	\$112,217	\$20,296		\$37,810
6F1	Talihina	Talihina Municipal Airport	\$107	\$0	\$4,545		\$411
K49	Texhoma	Texhoma Municipal Airport	\$337	\$7,470	\$0		\$1,045
1O4	Thomas	Thomas Municipal Airport	\$1,297	\$84,370	\$17,611		\$9,187
1O8	Tipton	Tipton Municipal Airport	\$525	\$0	\$0		\$821
0F9	Tishomingo	Tishomingo Airpark	\$239	\$0	\$14,326		\$257
RVS	Tulsa	Richard Lloyd Jones Jr Airport	\$15,621	\$1,230,868	\$425,277		\$1,973,811
H04	Vinita	Vinita Municipal Airport	\$1,606	\$0	\$15,028		\$6,517
H68	Wagoner	Hefner-Easley Airport	\$850	\$0	\$9,013		\$2,467
3O5	Walters	Walters Municipal Airport	\$363	\$12,461	\$5,391		\$418
JWG	Watonga	Watonga Regional Airport	\$2,522	\$19,002	\$18,183		\$7,893
1K5	Waynoka	Waynoka Municipal Airport	\$1,514	\$0	\$7,903		\$606
OJA	Weatherford	Thomas P Stafford Airport	\$6,487	\$132,385	\$42,246		\$57,118
4F1	Westport	Westport Airport	\$1,097	\$0	\$0		\$1,203
H05	Wilburton	Wilburton Municipal Airport	\$790	\$0	\$15,373		\$212
WWR	Woodward	West Woodward Airport	\$30,877	\$6,675	\$61,004		\$51,993
		<b>Total General Aviation Tax Contribution</b>	<b>\$1,262,636</b>	<b>\$10,976,104</b>	<b>\$3,118,405</b>	<b>\$0</b>	<b>\$9,430,550</b>
		<b>All Airports Tax Contribution</b>	<b>\$3,847,777</b>	<b>\$210,721,763</b>	<b>\$12,594,179</b>	<b>\$140,515,024</b>	<b>\$16,784,675</b>

Source: Estimates prepared by Marr Arnold Planning, 2017

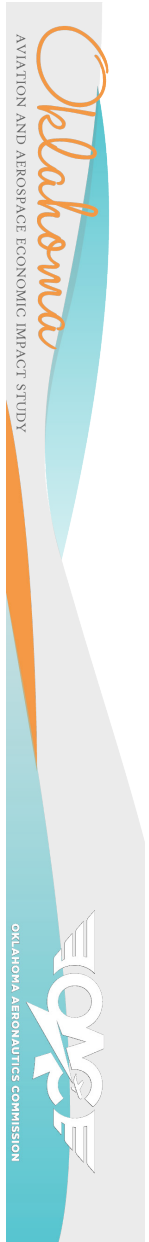


TABLE 27 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
LAW	Lawton	Lawton-Fort Sill Regional Airport	\$8,424	\$83,681	\$9,360	\$161,834	\$73,944
OKC	Oklahoma City	Will Rogers World Airport	\$155,382	\$12,463,447	\$459,017	\$6,152,440	\$220,460
SWO	Stillwater	Stillwater Regional Airport	\$10,752	\$160,655	\$17,882	\$115,968	\$83,712
TUL	Tulsa	Tulsa International Airport	\$148,960	\$12,823,155	\$340,224	\$5,195,929	\$270,088
		<b>Total Commercial Airports Tax Contribution</b>	<b>\$323,518</b>	<b>\$25,530,938</b>	<b>\$826,483</b>	<b>\$11,626,172</b>	<b>\$648,204</b>
ADH	Ada	Ada Municipal Airport	\$2,692	\$85,470	\$11,700		\$10,621
AXS	Altus	Altus/Quartz Mountain Regional Airport	\$2,730	\$33,670	\$2,072		\$6,858
AVK	Alva	Alva Regional Airport	\$3,224	\$27,898	\$1,096		\$4,030
F68	Anadarko	Anadarko Municipal Airport	\$532	\$1,242	\$625		\$0
80F	Antlers	Antlers Municipal Airport	\$560	\$0	\$1,040		\$280
1F0	Ardmore	Ardmore Downtown Executive	\$1,938	\$25,194	\$2,132		\$3,920
ADM	Ardmore	Ardmore Municipal	\$3,136	\$95,940	\$12,636		\$43,120
AQR	Atoka	Atoka Municipal Airport	\$2,080	\$0	\$1,185		\$280
BVO	Bartlesville	Bartlesville Municipal Airport	\$11,424	\$37,685	\$3,252		\$11,955
K44	Beaver	Beaver Municipal Airport	\$988	\$0	\$0		\$0
BKN	Blackwell	Blackwell-Tonkawa Municipal Airport	\$1,640	\$4,428	\$980		\$527
17K	Boise City	Boise City Airport	\$468	\$1,383	\$593		\$935
3F7	Bristow	Jones Memorial Airport	\$2,436	\$29,234	\$8,736		\$915
90F	Broken Bow	Broken Bow Airport (Jewel B. Callahan Municipal Airport)	\$806	\$0	\$0		\$0
BFK	Buffalo	Buffalo Municipal Airport	\$414	\$0	\$988		\$0
91F	Canadian	Carlton Landing Field	\$458	\$0	\$2,184		\$0

TABLE 27 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
86F	Carnegie	Carnegie Municipal Airport	\$871	\$0	\$1,184		\$0
CQB	Chandler	Chandler Regional Airport	\$414	\$1,469	\$1,976		\$1,596
92F	Chattanooga	Chattanooga Sky Harbor Airport	\$392	\$468	\$468		\$252
405	Cherokee	Cherokee Municipal Airport	\$425	\$0	\$1,014		\$273
93F	Cheyenne	Mignon Laird Municipal Airport	\$392	\$0	\$0		\$0
CHK	Chickasha	Chickasha Municipal Airport	\$2,349	\$23,049	\$1,064		\$3,915
GCM	Claremore	Claremore Regional Airport	\$3,252	\$30,700	\$4,370		\$17,886
95F	Cleveland	Cleveland Municipal Airport	\$436	\$6,996	\$520		\$0
CLK	Clinton	Clinton Regional Airport	\$6,820	\$7,410	\$1,976		\$4,140
CSM	Clinton	Clinton-Sherman Airport	\$8,736	\$17,416	\$652		\$958
44M	Cookson	Tenkiller Lake Airpark	\$272	\$0	\$0		\$175
F36	Cordell	Cordell Municipal Airport	\$988	\$0	\$988		\$0
CUH	Cushing	Cushing Municipal Airport	\$1,044	\$29,155	\$969		\$10,543
DUC	Duncan	Halliburton Field Airport	\$2,290	\$16,603	\$2,060		\$6,064
DUA	Durant	Durant Regional Airport - Eaker Field	\$2,925	\$25,597	\$2,220		\$16,340
RQO	El Reno	El Reno Regional Airport	\$3,144	\$25,152	\$460		\$4,626
ELK	Elk City	Elk City Regional Business Airport	\$5,108	\$25,884	\$2,204		\$4,860
WDG	Enid	Enid Woodring Regional Airport	\$9,548	\$93,955	\$12,152		\$38,531
F08	Eufaula	Eufaula Municipal Airport	\$560	\$0	\$1,040		\$0
0F7	Eufaula	Fountainhead Lodge Airpark	\$436	\$0	\$0		\$0
6K4	Fairview	Fairview Municipal Airport	\$1,242	\$4,500	\$2,250		\$1,656
FDR	Frederick	Frederick Regional Airport	\$414	\$0	\$6,916		\$798

TABLE 27 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
GAG	Gage	Gage Airport	\$494	\$0	\$988		\$0
1K4	Goldsby	David Jay Perry Airport	\$952	\$0	\$4,028		\$844
1O1	Grandfield	Grandfield Municipal Airport	\$468	\$2,665	\$533		\$0
GMJ	Grove	Grove Regional Airport	\$2,084	\$6,115	\$5,319		\$5,670
GOK	Guthrie	Guthrie-Edmond Regional Airport	\$3,008	\$72,640	\$3,588		\$29,328
GUY	Guymon	Guymon Municipal Airport	\$266	\$13,500	\$4,500		\$18,216
F32	Healdton	Healdton Municipal Airport	\$425	\$0	\$0		\$0
F10	Henryetta	Henryetta Municipal Airport	\$1,014	\$0	\$0		\$0
2O8	Hinton	Hinton Municipal Airport	\$756	\$0	\$1,184		\$252
HBR	Hobart	Hobart Regional Airport	\$784	\$4,264	\$936		\$1,568
F99	Holdenville	Holdenville Municipal Airport	\$441	\$4,197	\$0		\$0
O35	Hollis	Hollis Municipal Airport	\$414	\$7,875	\$0		\$0
H92	Hominy	Hominy Municipal Airport	\$403	\$0	\$266		\$0
O45	Hooker	Hooker Municipal Airport	\$1,242	\$2,250	\$988		\$0
HHW	Hugo	Stan Stamper Municipal Airport	\$1,307	\$18,424	\$658		\$1,742
4O4	Idabel	McCurtain County Regional Airport	\$2,015	\$0	\$4,384		\$4,030
1K8	Ketchum	South Grand Lake Regional Airport	\$414	\$3,750	\$3,458		\$4,140
F92	Kingfisher	Kingfisher Airport	\$518	\$4,810	\$1,096		\$481
F31	Kingston	Lake Texoma State Park Airport	\$414	\$0	\$0		\$0
O51	Laverne	Laverne Municipal Airport	\$381	\$980	\$0		\$0
1K2	Lindsay	Lindsay Municipal Airport	\$403	\$0	\$1,096		\$0
1F4	Madill	Madill Municipal Airport	\$602	\$1,125	\$828		\$266

TABLE 27 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
2K4	Mangum	Scott Field Airport	\$414	\$0	\$1,125		\$266
MLC	McAlester	McAlester Regional Airport	\$3,726	\$41,875	\$3,375		\$19,872
O53	Medford	Medford Municipal Airport	\$273	\$1,733	\$507		\$894
MIO	Miami	Miami Regional Airport	\$3,458	\$10,283	\$3,952		\$2,128
MDF	Mooreland	Mooreland Municipal Airport	\$386	\$0	\$0		\$0
MKO	Muskogee	Muskogee Davis Regional Airport	\$2,560	\$10,361	\$5,236		\$19,925
OUN	Norman	University of Oklahoma Westheimer Airport	\$10,878	\$131,790	\$5,915		\$80,010
O65	Okeene	Christman Airfield	\$414	\$8,438	\$988		\$0
F81	Okemah	Okemah Flying Field Airport	\$403	\$0	\$1,527		\$0
RCE	Oklahoma City	Clarence E Page Municipal Airport	\$2,014	\$34,160	\$4,028		\$4,440
PWA	Oklahoma City	Wiley Post Airport	\$10,062	\$681,421	\$19,448		\$186,480
OKM	Okmulgee	Okmulgee Regional Airport	\$2,123	\$87,780	\$1,155		\$6,792
PVJ	Pauls Valley	Pauls Valley Municipal Airport	\$1,014	\$8,981	\$5,070		\$3,396
H76	Pawhuska	Pawhuska Municipal Airport	\$381	\$1,036	\$381		\$245
F22	Perry	Perry Municipal Airport	\$2,740	\$11,453	\$1,924		\$2,418
PNC	Ponca City	Ponca City Regional Airport	\$6,758	\$23,564	\$1,352		\$10,570
RKR	Poteau	Robert S Kerr Airport	\$2,484	\$2,250	\$2,250		\$2,128
O47	Prague	Prague Municipal Airport	\$266	\$0	\$1,976		\$532
H71	Pryor	Mid-America Industrial Airport	\$1,092	\$10,264	\$3,042		\$2,547
3O3	Purcell	Purcell Municipal Airport - Steven E. Shepard Field	\$392	\$0	\$2,808		\$252
JSV	Sallisaw	Sallisaw Municipal Airport	\$864	\$17,088	\$1,031		\$1,110
OWP	Sand Springs	William R. Pogue Municipal Airport	\$3,367	\$7,696	\$5,291		\$7,254

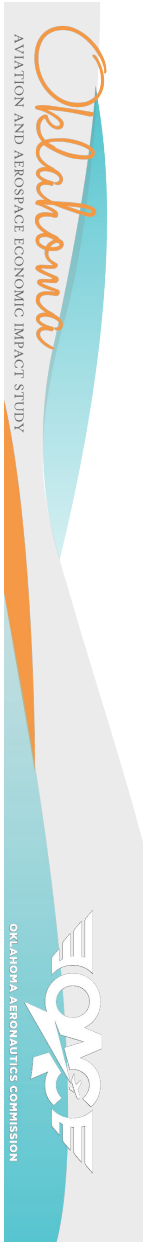


TABLE 27 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
3O4	Sayre	Sayre Municipal Airport	\$803	\$0	\$1,131		\$0
SRE	Seminole	Seminole Municipal Airport	\$4,900	\$15,015	\$5,070		\$2,972
SNL	Shawnee	Shawnee Regional Airport	\$4,572	\$27,972	\$6,370		\$15,240
2F6	Skiatook	Skiatook Municipal Airport	\$392	\$5,330	\$1,404		\$784
GZL	Stigler	Stigler Regional Airport	\$819	\$0	\$2,028		\$3,396
SUD	Stroud	Stroud Municipal Airport	\$414	\$0	\$1,125		\$0
F30	Sulphur	Sulphur Municipal Airport	\$414	\$0	\$563		\$0
TQH	Tahlequah	Tahlequah Municipal Airport	\$414	\$13,288	\$1,976		\$3,312
6F1	Talihina	Talihina Municipal Airport	\$175	\$0	\$350		\$0
K49	Texhoma	Texhoma Municipal Airport	\$370	\$0	\$0		\$0
1O4	Thomas	Thomas Municipal Airport	\$784	\$16,346	\$1,599		\$784
1O8	Tipton	Tipton Municipal Airport	\$436	\$0	\$0		\$0
0F9	Tishomingo	Tishomingo Airpark	\$392	\$0	\$1,184		\$0
RVS	Tulsa	Richard Lloyd Jones Jr Airport	\$6,054	\$270,412	\$37,212		\$169,918
H04	Vinita	Vinita Municipal Airport	\$828	\$0	\$1,250		\$532
H68	Wagoner	Hefner-Easley Airport	\$767	\$0	\$915		\$247
3O5	Walters	Walters Municipal Airport	\$414	\$2,046	\$494		\$0
JWG	Watonga	Watonga Regional Airport	\$1,786	\$4,856	\$1,599		\$574
1K5	Waynoka	Waynoka Municipal Airport	\$392	\$0	\$592		\$0
OJA	Weatherford	Thomas P Stafford Airport	\$3,528	\$15,312	\$3,744		\$5,488
4F1	Westport	Westport Airport	\$283	\$0	\$0		\$0
H05	Wilburton	Wilburton Municipal Airport	\$425	\$0	\$1,283		\$0



TABLE 27 – ESTIMATED DIRECT STATE AND LOCAL SALES TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
WWR	Woodward	West Woodward Airport	\$5,441	\$1,380	\$5,500		\$10,000
		<b>Total General Aviation Tax Contribution</b>	<b>\$197,254</b>	<b>\$2,255,219</b>	<b>\$275,319</b>	<b>\$0</b>	<b>\$827,096</b>
		<b>All Airports Tax Contribution</b>	<b>\$520,772</b>	<b>\$27,786,157</b>	<b>\$1,101,802</b>	<b>\$11,626,172</b>	<b>\$1,475,300</b>

Source: Estimates prepared by Marr Arnold Planning, 2017



TABLE 28 – ESTIMATED STATE INCOME TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
LAW	Lawton	Lawton-Fort Sill Regional Airport	\$8,240	\$125,600	\$11,315	\$62,676	\$29,033
OKC	Oklahoma City	Will Rogers World Airport	\$246,609	\$30,203,357	\$596,828	\$3,093,076	\$110,532
SWO	Stillwater	Stillwater Regional Airport	\$8,001	\$308,102	\$21,616	\$55,417	\$39,567
TUL	Tulsa	Tulsa International Airport	\$243,324	\$28,052,618	\$435,264	\$2,331,866	\$132,860
		<b>Total Commercial Airports Tax Contribution</b>	<b>\$506,173</b>	<b>\$58,689,677</b>	<b>\$1,065,022</b>	<b>\$5,543,035</b>	<b>\$311,992</b>
ADH	Ada	Ada Municipal Airport	\$4,880	\$131,324	\$13,626		\$4,147
AXS	Altus	Altus/Quartz Mountain Regional Airport	\$3,530	\$53,024	\$2,549		\$3,182
AVK	Alva	Alva Regional Airport	\$2,862	\$35,685	\$1,207		\$1,648
F68	Anadarko	Anadarko Municipal Airport	\$244	\$365	\$1,028		\$0
80F	Antlers	Antlers Municipal Airport	\$0	\$0	\$841		\$32
1F0	Ardmore	Ardmore Downtown Executive	\$3,524	\$44,353	\$2,557		\$1,683
ADM	Ardmore	Ardmore Municipal	\$2,938	\$142,065	\$15,100		\$20,570
AQR	Atoka	Atoka Municipal Airport	\$1,756	\$0	\$1,571		\$53
BVO	Bartlesville	Bartlesville Municipal Airport	\$10,734	\$69,877	\$4,250		\$5,663
K44	Beaver	Beaver Municipal Airport	\$1,033	\$0	\$0		\$0
BKN	Blackwell	Blackwell-Tonkawa Municipal Airport	\$622	\$10,891	\$1,011		\$102
17K	Boise City	Boise City Airport	\$156	\$1,404	\$698		\$337
3F7	Bristow	Jones Memorial Airport	\$4,711	\$40,079	\$9,212		\$526
90F	Broken Bow	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	\$311	\$0	\$0		\$0
BFK	Buffalo	Buffalo Municipal Airport	\$156	\$0	\$830		\$0
91F	Canadian	Carlton Landing Field	\$156	\$0	\$1,577		\$0
86F	Carnegie	Carnegie Municipal Airport	\$311	\$0	\$1,218		\$0

TABLE 28 – ESTIMATED STATE INCOME TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
CQB	Chandler	Chandler Regional Airport	\$156	\$3,053	\$2,212		\$729
92F	Chattanooga	Chattanooga Sky Harbor Airport	\$156	\$341	\$397		\$80
4O5	Cherokee	Cherokee Municipal Airport	\$156	\$0	\$951		\$24
93F	Cheyenne	Mignon Laird Municipal Airport	\$156	\$0	\$0		\$0
CHK	Chickasha	Chickasha Municipal Airport	\$2,042	\$35,480	\$1,309		\$1,398
GCM	Claremore	Claremore Regional Airport	\$1,296	\$46,763	\$4,997		\$7,480
95F	Cleveland	Cleveland Municipal Airport	\$156	\$16,978	\$430		\$0
CLK	Clinton	Clinton Regional Airport	\$12,128	\$8,614	\$2,063		\$1,683
CSM	Clinton	Clinton-Sherman Airport	\$9,140	\$18,193	\$846		\$337
44M	Cookson	Tenkiller Lake Airpark	\$156	\$0	\$0		\$24
F36	Cordell	Cordell Municipal Airport	\$892	\$0	\$782		\$0
CUH	Cushing	Cushing Municipal Airport	\$68	\$48,421	\$841		\$4,700
DUC	Duncan	Halliburton Field Airport	\$3,987	\$28,920	\$2,705		\$3,236
DUA	Durant	Durant Regional Airport - Eaker Field	\$2,045	\$33,449	\$2,679		\$6,730
RQO	El Reno	El Reno Regional Airport	\$3,725	\$40,776	\$522		\$1,734
ELK	Elk City	Elk City Regional Business Airport	\$10,181	\$53,469	\$2,967		\$1,692
WDG	Enid	Enid Woodring Regional Airport	\$8,652	\$148,913	\$16,772		\$18,736
F08	Eufaula	Eufaula Municipal Airport	\$111	\$0	\$1,156		\$0
0F7	Eufaula	Fountainhead Lodge Airpark	\$156	\$0	\$0		\$0
6K4	Fairview	Fairview Municipal Airport	\$593	\$5,470	\$2,953		\$1,171
FDR	Frederick	Frederick Regional Airport	\$156	\$0	\$7,326		\$342
GAG	Gage	Gage Airport	\$341	\$0	\$869		\$0

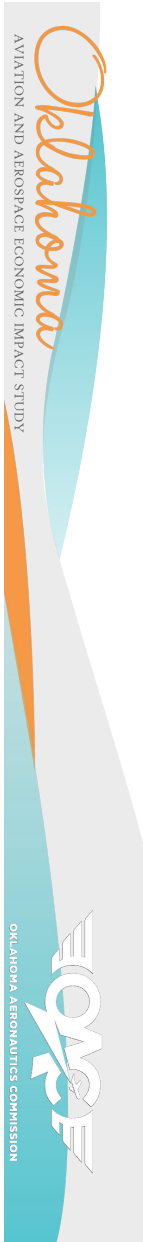


TABLE 28 – ESTIMATED STATE INCOME TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
1K4	Goldsby	David Jay Perry Airport	\$361	\$0	\$5,296		\$801
1O1	Grandfield	Grandfield Municipal Airport	\$367	\$4,079	\$693		\$0
GMJ	Grove	Grove Regional Airport	\$814	\$10,833	\$5,734		\$2,394
GOK	Guthrie	Guthrie-Edmond Regional Airport	\$2,236	\$114,528	\$4,394		\$14,274
GUY	Guymon	Guymon Municipal Airport	\$11	\$19,902	\$5,398		\$7,403
F32	Healdton	Healdton Municipal Airport	\$156	\$0	\$0		\$0
F10	Henryetta	Henryetta Municipal Airport	\$892	\$0	\$0		\$0
2O8	Hinton	Hinton Municipal Airport	\$181	\$0	\$1,926		\$114
HBR	Hobart	Hobart Regional Airport	\$382	\$6,526	\$778		\$608
F99	Holdenville	Holdenville Municipal Airport	\$156	\$6,144	\$0		\$0
O35	Hollis	Hollis Municipal Airport	\$156	\$11,421	\$0		\$0
H92	Hominy	Hominy Municipal Airport	\$156	\$0	\$110		\$0
O45	Hooker	Hooker Municipal Airport	\$771	\$3,263	\$1,083		\$0
HHW	Hugo	Stan Stamper Municipal Airport	\$506	\$27,489	\$1,030		\$673
4O4	Idabel	McCurtain County Regional Airport	\$1,561	\$0	\$5,286		\$1,683
1K8	Ketchum	South Grand Lake Regional Airport	\$156	\$5,720	\$3,799		\$2,008
F92	Kingfisher	Kingfisher Airport	\$121	\$4,783	\$1,638		\$389
F31	Kingston	Lake Texoma State Park Airport	\$156	\$0	\$0		\$0
O51	Laverne	Laverne Municipal Airport	\$156	\$329	\$0		\$0
1K2	Lindsay	Lindsay Municipal Airport	\$156	\$0	\$1,357		\$0
1F4	Madill	Madill Municipal Airport	\$93	\$1,487	\$655		\$80
2K4	Mangum	Scott Field Airport	\$156	\$0	\$1,642		\$114

TABLE 28 – ESTIMATED STATE INCOME TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
MLC	McAlester	McAlester Regional Airport	\$1,361	\$68,692	\$3,929		\$8,712
O53	Medford	Medford Municipal Airport	\$40	\$2,447	\$416		\$337
MIO	Miami	Miami Regional Airport	\$2,413	\$23,048	\$3,788		\$962
MDF	Mooreland	Mooreland Municipal Airport	\$156	\$0	\$0		\$0
MKO	Muskogee	Muskogee Davis Regional Airport	\$830	\$8,600	\$6,339		\$8,575
OUN	Norman	University of Oklahoma Westheimer Airport	\$15,944	\$217,035	\$7,439		\$38,693
O65	Okeene	Christman Airfield	\$156	\$12,236	\$1,034		\$0
F81	Okemah	Okemah Flying Field Airport	\$156	\$0	\$3,810		\$0
RCE	Oklahoma City	Clarence E Page Municipal Airport	\$3,109	\$70,098	\$5,434		\$1,692
PWA	Oklahoma City	Wiley Post Airport	\$16,295	\$1,215,038	\$25,553		\$91,728
OKM	Okmulgee	Okmulgee Regional Airport	\$730	\$115,862	\$1,370		\$2,688
PVJ	Pauls Valley	Pauls Valley Municipal Airport	\$1,037	\$15,460	\$5,400		\$1,346
H76	Pawhuska	Pawhuska Municipal Airport	\$156	\$1,632	\$248		\$24
F22	Perry	Perry Municipal Airport	\$3,971	\$25,301	\$2,351		\$1,202
PNC	Ponca City	Ponca City Regional Airport	\$6,949	\$86,963	\$1,541		\$5,019
RKR	Poteau	Robert S Kerr Airport	\$1,788	\$2,973	\$2,443		\$898
O47	Prague	Prague Municipal Airport	\$1	\$0	\$2,119		\$77
H71	Pryor	Mid-America Industrial Airport	\$335	\$17,628	\$3,222		\$846
303	Purcell	Purcell Municipal Airport - Steven E. Shepard Field	\$156	\$0	\$2,534		\$80
JSV	Sallisaw	Sallisaw Municipal Airport	\$311	\$29,160	\$978		\$420
OWP	Sand Springs	William R. Pogue Municipal Airport	\$2,921	\$6,048	\$5,624		\$2,858
304	Sayre	Sayre Municipal Airport	\$341	\$0	\$1,259		\$0

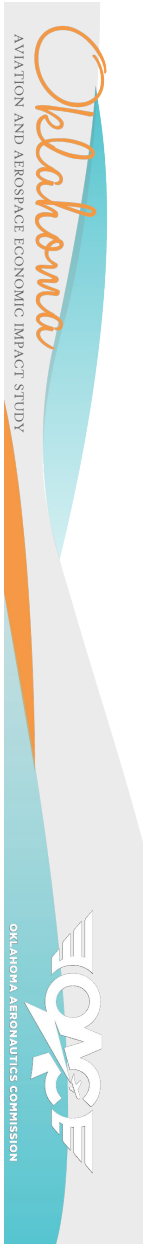


TABLE 28 – ESTIMATED STATE INCOME TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
SRE	Seminole	Seminole Municipal Airport	\$8,538	\$20,820	\$5,198		\$1,145
SNL	Shawnee	Shawnee Regional Airport	\$3,909	\$43,025	\$7,900		\$6,730
2F6	Skiatook	Skiatook Municipal Airport	\$133	\$7,868	\$1,574		\$102
GZL	Stigler	Stigler Regional Airport	\$212	\$0	\$1,859		\$1,346
SUD	Stroud	Stroud Municipal Airport	\$156	\$0	\$1,540		\$0
F30	Sulphur	Sulphur Municipal Airport	\$156	\$0	\$677		\$0
TQH	Tahlequah	Tahlequah Municipal Airport	\$156	\$33,956	\$1,829		\$1,602
6F1	Talihina	Talihina Municipal Airport	\$0	\$0	\$116		\$0
K49	Texhoma	Texhoma Municipal Airport	\$156	\$0	\$0		\$0
1O4	Thomas	Thomas Municipal Airport	\$311	\$41,872	\$1,987		\$402
1O8	Tipton	Tipton Municipal Airport	\$156	\$0	\$0		\$0
0F9	Tishomingo	Tishomingo Airpark	\$156	\$0	\$1,799		\$0
RVS	Tulsa	Richard Lloyd Jones Jr Airport	\$7,794	\$446,354	\$46,998		\$83,929
H04	Vinita	Vinita Municipal Airport	\$311	\$0	\$1,782		\$80
H68	Wagoner	Hefner-Easley Airport	\$311	\$0	\$839		\$24
3O5	Walters	Walters Municipal Airport	\$156	\$3,385	\$513		\$0
JWG	Watonga	Watonga Regional Airport	\$622	\$6,526	\$1,688		\$207
1K5	Waynoka	Waynoka Municipal Airport	\$156	\$0	\$1,046		\$0
OJA	Weatherford	Thomas P Stafford Airport	\$3,227	\$31,576	\$4,406		\$1,925
4F1	Westport	Westport Airport	\$156	\$0	\$0		\$0
H05	Wilburton	Wilburton Municipal Airport	\$156	\$0	\$1,777		\$0
WWR	Woodward	West Woodward Airport	\$2,090	\$2,429	\$6,108		\$8,045

TABLE 28 – ESTIMATED STATE INCOME TAXES PAID BY EMPLOYEES ASSOCIATED WITH AIRPORTS AND AIRPORT-SUPPORTED ACTIVITIES

FAA ID	City	Airport Name	Airport Employees	Companies Employees		Visitors Establishment Employees	
			Administration	Airport Tenants	Construction	Commercial	General Aviation
		<b>Total General Aviation Tax Contribution</b>	\$192,222	\$3,790,432	\$327,322	\$0	\$390,264
		<b>All Airports Tax Contribution</b>	\$698,395	\$62,480,109	\$1,392,344	\$5,543,035	\$702,255

Source: Estimates prepared by Marr Arnold Planning, 2017



TABLE 29 – SUMMARY OF OKLAHOMA AIRPORT-SUPPORTED TAX REVENUES

FAA ID	City	Airport Name	Total Tax Revenue
LAW	Lawton	Lawton-Fort Sill Regional Airport	\$3,425,715
OKC	Oklahoma City	Will Rogers World Airport	\$197,395,202
SWO	Stillwater	Stillwater Regional Airport	\$3,940,557
TUL	Tulsa	Tulsa International Airport	\$259,985,461
		<b>Total Commercial Airports Tax Contribution</b>	<b>\$464,746,935</b>
ADH	Ada	Ada Municipal Airport	\$1,083,284
AXS	Altus	Altus/Quartz Mountain Regional Airport	\$527,047
AVK	Alva	Alva Regional Airport	\$332,871
F68	Anadarko	Anadarko Municipal Airport	\$33,883
80F	Antlers	Antlers Municipal Airport	\$19,992
1F0	Ardmore	Ardmore Downtown Executive	\$254,701
ADM	Ardmore	Ardmore Municipal	\$1,451,625
AQR	Atoka	Atoka Municipal Airport	\$27,729
BVO	Bartlesville	Bartlesville Municipal Airport	\$680,315
K44	Beaver	Beaver Municipal Airport	\$4,622
BKN	Blackwell	Blackwell-Tonkawa Municipal Airport	\$120,491
17K	Boise City	Boise City Airport	\$29,410
3F7	Bristow	Jones Memorial Airport	\$370,545
90F	Broken Bow	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	\$10,491
BFK	Buffalo	Buffalo Municipal Airport	\$13,205
91F	Canadian	Carlton Landing Field	\$27,934
86F	Carnegie	Carnegie Municipal Airport	\$17,187
CQB	Chandler	Chandler Regional Airport	\$92,651
92F	Chattanooga	Chattanooga Sky Harbor Airport	\$14,870
405	Cherokee	Cherokee Municipal Airport	\$16,576
93F	Cheyenne	Mignon Laird Municipal Airport	\$4,712
CHK	Chickasha	Chickasha Municipal Airport	\$205,872
GCM	Claremore	Claremore Regional Airport	\$468,364
95F	Cleveland	Cleveland Municipal Airport	\$92,926
CLK	Clinton	Clinton Regional Airport	\$157,369
CSM	Clinton	Clinton-Sherman Airport	\$240,948
44M	Cookson	Tenkiller Lake Airpark	\$3,670
F36	Cordell	Cordell Municipal Airport	\$15,370



TABLE 29 – SUMMARY OF OKLAHOMA AIRPORT-SUPPORTED TAX REVENUES

FAA ID	City	Airport Name	Total Tax Revenue
CUH	Cushing	Cushing Municipal Airport	\$291,289
DUC	Duncan	Halliburton Field Airport	\$224,687
DUA	Durant	Durant Regional Airport - Eaker Field	\$413,909
RQO	El Reno	El Reno Regional Airport	\$252,317
ELK	Elk City	Elk City Regional Business Airport	\$272,604
WDG	Enid	Enid Woodring Regional Airport	\$1,440,003
F08	Eufaula	Eufaula Municipal Airport	\$19,793
0F7	Eufaula	Fountainhead Lodge Airpark	\$2,555
6K4	Fairview	Fairview Municipal Airport	\$128,721
FDR	Frederick	Frederick Regional Airport	\$104,084
GAG	Gage	Gage Airport	\$13,122
1K4	Goldsby	David Jay Perry Airport	\$75,368
1O1	Grandfield	Grandfield Municipal Airport	\$61,008
GMJ	Grove	Grove Regional Airport	\$196,672
GOK	Guthrie	Guthrie-Edmond Regional Airport	\$1,031,076
GUY	Guymon	Guymon Municipal Airport	\$369,080
F32	Healdton	Healdton Municipal Airport	\$945
F10	Henryetta	Henryetta Municipal Airport	\$7,202
2O8	Hinton	Hinton Municipal Airport	\$25,256
HBR	Hobart	Hobart Regional Airport	\$67,617
F99	Holdenville	Holdenville Municipal Airport	\$34,437
O35	Hollis	Hollis Municipal Airport	\$50,077
H92	Hominy	Hominy Municipal Airport	\$4,627
O45	Hooker	Hooker Municipal Airport	\$48,698
HHW	Hugo	Stan Stamper Municipal Airport	\$144,010
4O4	Idabel	McCurtain County Regional Airport	\$112,309
1K8	Ketchum	South Grand Lake Regional Airport	\$124,572
F92	Kingfisher	Kingfisher Airport	\$69,547
F31	Kingston	Lake Texoma State Park Airport	\$3,068
O51	Laverne	Laverne Municipal Airport	\$28,882
1K2	Lindsay	Lindsay Municipal Airport	\$17,270
1F4	Madill	Madill Municipal Airport	\$22,634
2K4	Mangum	Scott Field Airport	\$21,862

TABLE 29 – SUMMARY OF OKLAHOMA AIRPORT-SUPPORTED TAX REVENUES

FAA ID	City	Airport Name	Total Tax Revenue
MLC	McAlester	McAlester Regional Airport	\$575,383
O53	Medford	Medford Municipal Airport	\$27,903
MIO	Miami	Miami Regional Airport	\$216,456
MDF	Mooreland	Mooreland Municipal Airport	\$8,677
MKO	Muskogee	Muskogee Davis Regional Airport	\$459,825
OUN	Norman	University of Oklahoma Westheimer Airport	\$1,909,998
O65	Okeene	Christman Airfield	\$65,335
F81	Okemah	Okemah Flying Field Airport	\$34,262
RCE	Oklahoma City	Clarence E Page Municipal Airport	\$472,910
PWA	Oklahoma City	Wiley Post Airport	\$8,044,851
OKM	Okmulgee	Okmulgee Regional Airport	\$672,584
PVJ	Pauls Valley	Pauls Valley Municipal Airport	\$270,170
H76	Pawhuska	Pawhuska Municipal Airport	\$15,191
F22	Perry	Perry Municipal Airport	\$202,439
PNC	Ponca City	Ponca City Regional Airport	\$464,140
RKR	Poteau	Robert S Kerr Airport	\$111,452
O47	Prague	Prague Municipal Airport	\$34,247
H71	Pryor	Mid-America Industrial Airport	\$157,120
3O3	Purcell	Purcell Municipal Airport - Steven E. Shepard Field	\$37,707
JSV	Sallisaw	Sallisaw Municipal Airport	\$183,173
OWP	Sand Springs	William R. Pogue Municipal Airport	\$245,960
3O4	Sayre	Sayre Municipal Airport	\$17,204
SRE	Seminole	Seminole Municipal Airport	\$212,676
SNL	Shawnee	Shawnee Regional Airport	\$589,116
2F6	Skiatook	Skiatook Municipal Airport	\$69,171
GZL	Stigler	Stigler Regional Airport	\$66,020
SUD	Stroud	Stroud Municipal Airport	\$20,529
F30	Sulphur	Sulphur Municipal Airport	\$10,618
TQH	Tahlequah	Tahlequah Municipal Airport	\$255,174
6F1	Talihina	Talihina Municipal Airport	\$5,703
K49	Texhoma	Texhoma Municipal Airport	\$9,377
1O4	Thomas	Thomas Municipal Airport	\$176,549
1O8	Tipton	Tipton Municipal Airport	\$1,937

TABLE 29 – SUMMARY OF OKLAHOMA AIRPORT-SUPPORTED TAX REVENUES

FAA ID	City	Airport Name	Total Tax Revenue
0F9	Tishomingo	Tishomingo Airpark	\$18,351
RVS	Tulsa	Richard Lloyd Jones Jr Airport	\$4,714,247
H04	Vinita	Vinita Municipal Airport	\$27,934
H68	Wagoner	Hefner-Easley Airport	\$15,432
3O5	Walters	Walters Municipal Airport	\$25,640
JWG	Watonga	Watonga Regional Airport	\$65,458
1K5	Waynoka	Waynoka Municipal Airport	\$12,208
OJA	Weatherford	Thomas P Stafford Airport	\$307,441
4F1	Westport	Westport Airport	\$2,739
H05	Wilburton	Wilburton Municipal Airport	\$20,015
WWR	Woodward	West Woodward Airport	\$191,542
		<b>Total General Aviation Tax Contribution</b>	<b>\$33,042,823</b>
		<b>All Airport-Supported Tax Contribution</b>	<b>\$497,789,759</b>

Source: Estimates prepared by Marr Arnold Planning, 2017

## 8.0 HIGHLIGHTED AREAS OF AIRPORTS/AVIATION SUPPORTED BENEFITS AND USES

There are many uses and users that Oklahoma airports support. By supporting these uses/users, the airports contribute to the state’s economic well-being among other things. The following sections highlight some of the ways in which airports help to improve the state’s quality of life, while supporting the state and local economies. The following are discussed in this section:

- Economic benefits associated with aerial applicators who help to support the state’s agricultural industry.
- An overview of jobs and activities in Oklahoma that are tied to aviation related training and education.
- An analysis of how healthcare and emergency services in Oklahoma benefit from and rely on airports throughout the state.
- A discussion of how companies and employees in Oklahoma improve their efficiency by relying on airports and different facets of aviation.
- Information on Unmanned Aircraft Systems (UAS)/Unmanned Aerial Vehicles (UAV) activities that are growing in Oklahoma.

### 8.1 Statewide Economic Impacts from Aerial Applicators

Each year, according to the Oklahoma Department of Agriculture, Food, and Forestry, Oklahoma has more than \$8 billion in new crop and livestock production. There are an estimated 34.2 billion acres in the state devoted to agriculture. The state has over 78,000 farms, ranking it fourth in the nation; the average farm size in Oklahoma is 438 acres. When all facets of agriculture, agri-business, crop production, and livestock are considered, it is estimated that the agricultural industry in Oklahoma is responsible for an estimated \$40 billion

in total annual economic activity. This estimate is attributed to the Oklahoma Department of Agriculture, Food, and Forestry.

Nationwide there are over 1,350 aerial application businesses; 94% of these businesses are owned by pilots. Aerial application of pesticides is often the most timely as well as the most economical way to treat crops, especially when areas requiring treatment are remote or are large in terms of acreage. Wet soil conditions, rolling terrain, and/or dense plant foliage all support aerial application as the best method for applying pesticides. Aerial application is non-disruptive to crops and has been shown to increase yields on a per acre basis. Since aerial applications do not compact the soil, these treatments also help to prevent chemical runoff.

According to the U.S. Department of Agriculture (USDA), there are an estimated 408 million acres that are in agricultural production in the United States. Of this total, 286 million of these acres (70%) are treated, of which an estimated 71 million are treated through services provided by aerial applicators. Most businesses engaged in agricultural aerial applications average operating just over two aircraft; during treatment seasons, these aircraft perform between 30 to 100 takeoffs and landings each day.

Today's aerial applicators have aircraft that are equipped with sophisticated GPS and GIS equipment. This equipment helps applicators monitor the weather and other conditions so that they can better calibrate their application of chemical treatments. It increases efficiency and helps to reduce the volume of chemicals that need to be applied. Aerial applicators flying in Oklahoma average over 20 years of experience. All pilots flying as aerial applicators in the state must be licensed, including meeting standards set forth in FAA Part 137.

Information collected for this OAC study indicates there are over 100 aerial applicators licensed to do business in Oklahoma; this number includes both in and out of state companies. While these aerial applicators might treat any crop, data collected during the study indicates that they most often treat pasture lands, wheat, alfalfa, corn, soybeans, and milo.

For this OAC study, the economic impacts of aerial applicators were evaluated in two ways. First, aerial applicators are often tenants at one of the study airports. For all tenants at the 109 study airports, annual economic impacts were measured using the employment that the tenant supports, the annual payroll associated with tenant-related employment, and annual spending by each tenant to buy goods and services to support the operation of their business. Aerial applicators typically have high average annual spending because of the cost of the chemicals they purchase.

Survey efforts for this OAC study identified direct employment, payroll, spending, and annual economic activity for all tenants in the aerial applicator category. **Figure 7 – Study Airports with Based & Transient Aerial Applicators** shows the location of airports in the state that are reportedly home to one or more businesses that provide aerial application services. Information on employment, payroll, and spending for aerial applicators, based at one of the 109 study airports, was collected as part of OAC's study. The economic impacts of these businesses were previously reported, along with those for all other airport tenants, in an earlier section of this report.

Once direct impacts associated with aerial applicators based at an Oklahoma airport are released into the state's economy, the direct employment, payroll, and spending helps to support successive waves of additional benefits associated with each of the three measures. These additional indirect/induced benefits were estimated using the IMPLAN input/Economic Activity econometric model. When direct, indirect/induced, and total impacts are considered, based aerial applicators in Oklahoma support the following annual impacts on a statewide basis:

- Based aerial applicators in Oklahoma support a total of 134 jobs.

- All 134 jobs associated with the based aerial applicators have a total annual payroll estimated at \$7.0 million.
- The total annual spending associated with based aerial applicators in Oklahoma is estimated at \$12.7 million.
- This study estimates that total annual economic activity associated with aerial applicators based at one of the study airports is \$19.7 million.

In addition to economic impacts associated with based aerial applicators, there are other economic impacts that the state realizes on an annual basis that are associated with transient aerial applicators that operate in Oklahoma. Transient (or visiting) aerial applicators are sometimes applicators based in the state, but they are also sometimes applicators that are based in another nearby state or at an airstrip that was not considered a study airport. **Figure 7** also shows all airports that reported accommodating aerial applicators on a transient basis.

FIGURE 7 – STUDY AIRPORTS WITH BASED & TRANSIENT AERIAL APPLICATORS



Data Sources: Airports and Oklahoma Licensed Aerial Applicators

When aerial applicators are in a community, they are often there for several weeks. During the time-frame that they are providing services, they often have local spending for items such as food and/or lodging. Working with the Oklahoma Aerial Applicators Association, surveys were distributed to all aerial applicators who are licensed to provide services in the state. In some cases, these applicators have an Oklahoma address and in others, they have an out-of-state address. Information from the surveys helped to determine how long transient aerial applicators typically operate in a community that is remote from their home base. In addition, survey responses helped to estimate how much local spending transient aerial applicators have in Oklahoma.

Based on survey results, it was determined that on a direct basis, transient aerial applicators spend an estimated \$757,300 each year while operating in Oklahoma. Using the IMPLAN model, it was estimated that this direct annual spending supports \$1.4 million in total annual spending in the visitor category. Direct, indirect/induced, and total annual economic impacts supported by activities in Oklahoma associated with transient aerial applicators follow:

- Transient aerial applicators in Oklahoma support a total of 25 jobs.
- All 25 jobs associated with transient aerial applicators have a total annual payroll estimated at \$643,300.

- The total annual visitor related spending associated with transient aerial applicators in Oklahoma is estimated at \$1.4 million.
- This study estimates that total annual economic activity associated with transient aerial applicators who operate at one of the study airports is \$2 million.

Total combined annual economic impacts in Oklahoma associated with based and transient aerial applicators have been estimated as follows:

- Combined, all activities associated with based and transient aerial applicators in Oklahoma support an estimated 159 jobs in the state.
- These 159 total statewide jobs have an annual payroll estimated at \$7.6 million.
- All annual spending associated with based and transient aerial applicators in Oklahoma, as estimated in the OAC study, is \$14.1 million.
- All annual economic activity associated with based and transient aerial applicators who rely on study airports is estimated at \$21.7 million.

Aerial applicators in Oklahoma have a significant economic impact on the state's economy. It is important to note that the impacts for based aerial applicators were previously reported as part of the tenant impacts, both for each airport and the state. Also, economic impacts associated with the spending of transient aerial applicators was previously reflected in the airport and statewide estimates for general aviation visitor spending. Therefore, the impacts highlighted in this section of the report are not additive in nature.

## 8.2 Statewide Economic Impacts from Aviation Related Education and Training

As a result of Oklahoma's robust civilian and military aviation communities, the state has become a leader in aviation related education and training. This ranges from single proprietors who provide flight training on a part-time basis to the FAA's largest aviation training center in the nation. Some providers of aviation related education and training are located at one of the 109 study airports, but some have their facilities or at least part of their operations at an off-airport location.

On-airport providers of aviation related education and training were identified during this OAC study when the economic impacts of airport tenants were documented. Off-airport providers of aviation related education and training, including colleges and universities, were identified separately. The Oklahoma Department of Commerce and OAC staff, along with other study research, helped to identify off-airport educational providers.

Through study research, it was determined that the state is home to more than 120 colleges/universities, technology centers, flight schools, and private flight instructors. Oklahoma's aviation educational programs include numerous and diverse undergraduate and graduate degree programs, certificates, and licenses. These include aerospace engineering, aviation management, professional pilot certification, aviation maintenance, and aviation technology.

Through this study's inventory process, airport tenants that offer aviation educational services and training were identified. The study found that 44 tenants at study airports provided some level of aviation training and/or education. Many of these tenants are stand-alone flight schools or flight schools associated with an FBO. As shown in **Table 30 – On-Airport Tenants Providing Aviation Education/Training**, several universities and colleges also have on-airport flight training operations and other training facilities at study airports.

TABLE 30 – ON-AIRPORT TENANTS PROVIDING AVIATION EDUCATION/TRAINING

Aviation Education/Training Facility	Affiliated Airport
A Comet Aviation, LLC.	Altus/Quartz Mountain Regional Airport
AirOne Flight Academy, Inc	Wiley Post Airport
Alpha Aviation	Muskogee Davis Regional Airport
American Sprayers, Flight Training	Grandfield Municipal Airport
Aviator's Wing	Enid Woodring Regional Airport
Barker Aviation	Ardmore Downtown Executive
Blue Skies Flight School	Guthrie-Edmond Regional Airport
Centerline Aviation	Guymon Municipal Airport
Chickasha Wings	Chickasha Municipal Airport
D3 Aviation	Richard Lloyd Jones Jr Airport
Davis Field Aviation	Muskogee Davis Regional Airport
Destinations EFC LLC	Richard Lloyd Jones Jr Airport
Equinox Instruction	William R. Pogue Municipal Airport
Mike Monroney Aeronautical Center	Will Rogers World Airport
First Global Aviation	Wiley Post Airport
Independent Flight Instructor	Bartlesville Municipal Airport
Fly Enid-Aero Club of Enid	Enid Woodring Regional Airport
Gordon Cooper Technology Center	Shawnee Regional Airport
Grover Air	Miami Regional Airport
Hangar 1 Flight Center of Stillwater	Stillwater Regional Airport
Herrmann Flying Services	Bartlesville Municipal Airport
Independent Flight Instructor	Muskogee Davis Regional Airport
Interstate Helicopters	Wiley Post Airport
Lakeland Aviation	Ardmore Downtown Executive
Litchfield Aviation	Ardmore Downtown Executive
Metro Technology Center	Will Rogers World Airport
O'Connor Flying Service	Shawnee Regional Airport
Oklahoma Aviation, LLC	Wiley Post Airport
Oklahoma State University	Stillwater Regional Airport
Red Cloud Aviation	Shawnee Regional Airport
Red River Flight Academy	Altus/Quartz Mountain Regional Airport
Riverside Flight Center	Richard Lloyd Jones Jr Airport
Riverside Jet Center (The Flight School)	Richard Lloyd Jones Jr Airport

TABLE 30 – ON-AIRPORT TENANTS PROVIDING AVIATION EDUCATION/TRAINING

Aviation Education/Training Facility	Affiliated Airport
Southwest Oklahoma Technology Center	Altus/Quartz Mountain Regional Airport
Spartan College of Aeronautics and Technology	Richard Lloyd Jones Jr Airport
Spencer Flying Services	Thomas P Stafford Airport
Stick N Rudder Flight School	Elk City Regional Business Airport
Tailspin, LLC	Stillwater Regional Airport
Tubb Aviation	Halliburton Field Airport
Tulsa Aviation Group	Claremore Regional Airport
Tulsa Community College	Richard Lloyd Jones Jr Airport
University of Oklahoma	University of Oklahoma Westheimer Airport
Western Oklahoma Aviation, LLC	Clinton Regional Airport
Younger Aviation LLC	Robert S Kerr Airport

Source: OAC Study Surveys

To develop a comprehensive picture of all aviation-related education facilities and providers located in Oklahoma, this study included additional research to identify facilities not located at a study airport. Off-airport facilities and providers were identified through online research with input from study airports and the Oklahoma Department of Commerce, and with direction from OAC. A total of 79 off-airport facilities and/or independent flight instructors were identified through this process.

**Table 31 – Off-Airport Aviation Education/Training Providers** shows off-airport educational providers; 71 are independent flight instructors. These flight instructors were identified through Gleim Aviation, an online database of flight instructors by state. These flight instructors were not included in the previously identified airport tenant impacts. Many of these flight instructors use multiple rather than a single airport for student training and some operate at private airports not included in this report.

TABLE 31 – OFF-AIRPORT AVIATION EDUCATION/TRAINING PROVIDERS

Facility	Location
Advanced Pilot Seminars	Ada, OK
Canadian Valley Technology Center	Chickasha, Yukon, El Reno, OK
Francis Tuttle Technology Center	Oklahoma City, OK
Southeastern Oklahoma State University	Durant, OK
Southern Nazarene University	Bethany, OK
St. Gregory's University	Shawnee, OK
Tulsa Technology Center	Tulsa, OK
Western Oklahoma State College	Altus, OK
Independent Flight Instructors (71)	Various Locations in OK

Source: OAC Study Research



In total, aviation educational facilities and programs in Oklahoma directly support more than 1,500 jobs, as shown in **Table 32 – Employment Related to Aviation Education**. One of the highlights of Oklahoma’s aviation education programs is the Spartan College of Aeronautics and Technology, located in Tulsa. Spartan offers more than ten aviation-related degree options, with each program offering numerous opportunities for specialization and advancement. More than 200 aviation staff members are employed at Spartan and 850 students are enrolled each year in the aviation programs.

Oklahoma is also home to FAA’s Mike Monroney Aeronautical Center; the Center supports nearly 950 aviation related education jobs and provides airport and aviation training and other related services to thousands of program participants who come to the Center each year from around the world. This is one of only a few locations worldwide that offers specialized training that is required for many FAA and aviation related government jobs.

Flight training through private instructors and flight schools is important in Oklahoma. The state has more than 25 flight schools and over 70 private flight instructors, many of which are located at study airports. Activities associated with flight training in Oklahoma significantly increases airport operations, fuel flowage, and airport revenues; flight training activities help add to the financial viability of many study airports.

TABLE 32 – EMPLOYMENT RELATED TO AVIATION EDUCATION

Type of Educational Facility	Employees
Flight Schools and Private Instruction	207
Colleges and Universities	349
Technology Center	62
Government Training	948
<b>Total</b>	<b>1,566</b>

Source: OAC Study Research

The economic impacts of the aviation-related education and training providers located at some of the 109 study airports were previously reported as part of each airport’s and the state’s annual economic impacts associated with airport tenants, so benefits discussed here are not additive in nature.

Oklahoma is helping to fill the pipeline with professional pilots, aircraft mechanics, and other aviation professionals. Many of the students who obtain aircraft mechanic degrees stay in Oklahoma and work either for American Airlines on the civilian side or at one of the three Air Force bases. Student graduating from aviation-related programs in Oklahoma are generally entering the workforce in high-paying jobs. The economic impact of many of these post-graduate jobs has most likely been estimated in some way in this OAC study. By continuing to provide training for aviation professionals, institutions in Oklahoma will continue to help contribute to the significant aviation and aerospace related economic impacts estimated in this study.

### 8.3 Statewide Healthcare and Emergency Services Supported by Oklahoma Airports

Aviation plays an important role in supporting the health and well-being of the residents in Oklahoma. Aviation and airports support the mission of numerous health care facilities that provide quality patient care in an accessible manner.

Airports and helipads are utilized to transport patients from remote health care facilities to state-of-the-art hospitals, primarily in Oklahoma City and Tulsa. General aviation helicopters are used to airlift patients from accidents for life-saving treatment. Physicians and nurse practitioners fly to rural parts of the state to provide patients with local health care options. Teams of doctors fly on private aircraft to recover and prepare organ donations for transplants. As part of this study, research was conducted to identify links between healthcare, emergency services, and aviation. This section highlights the roles airports in Oklahoma play in supporting emergency services, medical services, physician transport, and other healthcare related services.

While many airports reported during study survey efforts that nearby hospitals and physicians use their facilities, more research was needed to determine how often and to what extent these linkages occur. Over 150 hospitals and healthcare facilities in Oklahoma were contacted to determine their use of and reliance on aviation. Contacts for this particular task were obtained from the Oklahoma Hospital Association and the Oklahoma City Area Federal/Tribal/Urban Indian Health System Directory.

An initial email was sent to each facility requesting that they complete the “Survey of Healthcare Providers” that asked if and how each facility utilizes aviation. Respondents had the option to complete the survey online or they could complete and return a paper copy of the survey. A follow-up phone call was made to each non-responding facility. If no contact was made, one more follow-up email was sent with a request to complete the survey or respond to the email if they did not use or rely on aviation. Based on this approach, 67% of the healthcare facilities in the state responded to the additional survey. The list of responding facilities is presented in this section.

To ascertain their use of and reliance on aviation, answers to the following were requested from each healthcare facility:

1. If they have physicians/specialists flying to a local airport to see patients at a healthcare facility or staff members of a healthcare facility that fly out to provide services in other areas of Oklahoma. Respondents were also asked to report which airports they use.
2. If they receive or send patients via fixed-wing aircraft or helicopters from a local airport to a larger, more distant hospital.
3. If they use an air ambulance company for air care transport and if local airports are used for transport.
4. If the facility has a helipad which air evacuation companies utilize or if they have their own helicopter and/or flight and medical crew, and how often their helipad is utilized.
5. If they have doctors that fly in/out to harvest tissue or organs for transplant purposes.

The following summarizes the findings from each question noted above. As reported, airports and aviation in Oklahoma play a key role in improving access for patients to support key healthcare benefits.

### **1. Do doctors fly into a local airport to see patients at your hospital/clinic or do any of your clinicians fly to other areas of the state to access patients?**

Many clinicians rely on general aviation to reach patients in rural parts of Oklahoma. For example, Integris Heart Hospital in Oklahoma City has an aircraft based at Wiley Post. They use this aircraft to fly cardiologists around Oklahoma to see heart patients at their cardiology clinics throughout the state. David Arles is a nurse practitioner that is based in Elk City. He covers shifts at rural health care facilities across Oklahoma, as needed, with the help of general aviation.

Physicians and specialists across the country also fly into Tulsa International to see patients at the world-renowned cancer treatment centers, including the Cancer Treatment Centers of America at Southwestern Regional Medical Center and the Oklahoma Cancer Specialist and Research Institute. **Table 33 – Oklahoma**

**Healthcare Facilities with Doctors Who Fly to See Patients** summarizes, according to this study’s survey results, which hospitals have visiting doctors that arrive via air.

TABLE 33 – OKLAHOMA HEALTHCARE FACILITIES WITH DOCTORS WHO FLY TO SEE PATIENTS

Hospital/Facility	Specialty	Airports Used
Jackson County Memorial	Emergency Medicine	Altus-Quartz Mountain, Lawton-Fort Sill Regional
Physicians Hospital Anadarko	Family Medicine (Carter Pro-Care)	Anadarko Municipal, Sundance
Beaver County Memorial	Emergency Medicine	Beaver County Municipal
Harper County Memorial	Cardiology	Buffalo Municipal
Carnegie Tri-County Municipal	Nurse Practitioner	Sayre Municipal, Carnegie Municipal
St. Mary’s Regional Medical Center	Various for specialist shift coverage	Will Rogers OKC, Tulsa International
Pawhuska Memorial	Family Practice (Carter Pro-Care)	Pawhuska Municipal
Eastern Oklahoma Medical Center	Family Practice	Robert S. Kerr
Seiling Municipal	Nurse Practitioner	Seiling, Elk City Regional
Haskell County Community	Family Medicine (Carter Pro-Care)	Stigler Regional, Sundance
Stroud Regional Medical Center	Family Medicine (Carter Pro-Care)	Stroud Municipal, Sundance
Southwestern Regional Medical Center	Surgical Oncology and others	Tulsa International
St. John Medical Center	Various locum tenens	Tulsa International
Wagoner Community	Emergency Medicine	Hefner-Easley, Wiley Post
Latimer County General	Family Medicine (Carter Pro-Care)	Wilburton Municipal, Sundance
Vici Health Clinic	Nurse Practitioner	Vici Municipal, Elk City Regional
Mary Hurley	Cardiology (INTEGRIS)	Coalgate, Atoka Municipal
Okeene Municipal	Cardiology (INTEGRIS)	Okeene Municipal
Rowland Ellis Flatt Clinic	Cardiology (INTEGRIS)	Antlers Municipal, Wiley Post
Hugo Medical Center	Cardiology (INTEGRIS)	Stan Stamper Municipal, Wiley Post
Blackwell Cardiology Clinic	Cardiology (INTEGRIS)	Ponca City Regional, Wiley Post
Watonga Cardiology Clinic	Cardiology (INTEGRIS)	Watonga Regional, Wiley Post
Okeene Cardiology Clinic	Cardiology (INTEGRIS)	Okeene Municipal, Wiley Post
Lindsay Municipal	Orthopedic Surgery	Lindsay Municipal, Ardmore Municipal
Abel Eye Associates	Ophthalmology	Helipads in Tulsa, Muskogee
ENT of Oklahoma	ENT/Oncology	Lawton- Fort Sill, Ft. Smith AR
Young Eye Institute	Ophthalmology/Cataract Surgery	Lawton-Fort Sill

Source: OAC Study Research

## 2. Does your healthcare facility fly patients in or out of the local airport?

Thirty-eight hospitals in rural and urban areas across Oklahoma noted that they use public airports in Oklahoma for transporting patients on both fixed-wing aircraft and helicopters. **Table 34 – Airports in Oklahoma that**

**Support Patient Transfers** notes the 33 airports that are reportedly used for patient transfers; this reporting is based on survey responses. Other aspects of this study’s research indicate that this number might be higher.

TABLE 34 – AIRPORTS IN OKLAHOMA THAT SUPPORT PATIENT TRANSFERS

Airport	Hospital Supported (City)
Ada Municipal Airport	– Chickasaw Nation Medical Center (Ada) – Mercy Hospital Ada
Altus-Quartz Mountain Airport	Jackson County Memorial Hospital (Altus)
Alva Municipal Airport	Share Medical Center (Alva)
Stan Stamper Municipal Airport	Pushmataha Hospital (Antlers)
Ardmore Municipal Airport	Mercy Hospital Ardmore
Beaver Municipal Airport	Beaver County Memorial Hospital (Beaver)
Blackwell-Tonkawa Municipal Airport	Alliance Health Blackwell
Boise City Airport	Cimarron Memorial Hospital (Boise City)
Buffalo Municipal Airport	Harper County Memorial Hospital (Buffalo)
Carnegie Municipal Airport	Carnegie Tri-County Municipal Hospital (Carnegie)
Elk City Regional Business Airport	– Roger Mills Memorial Hospital (Cheyenne) – Great Plains Regional Medical Center (Elk City)
Claremore Regional Airport	Hillcrest Hospital Claremore
Clinton Regional Airport	Alliance Health Clinton
Atoka Municipal Airport	Mary Hurley Hospital (Coalgate)
City of Coalgate Airport	Mary Hurley Hospital (Coalgate)
Haliburton Field	Duncan Regional Hospital (Duncan)
Durant Regional Airport	Alliance Health Durant
Fairview Municipal Airport	Fairview Regional Medical Center (Fairview)
Enid Regional Airport	INTEGRIS Bass Baptist Health Center (Enid)
Lawton-Ft. Sill Airport	Comanche County Memorial Hospital
McAlester Regional Airport	Latimer County General Hospital (Wilburton)
Miami Regional Airport	INTEGRIS Miami Hospital
Okeene Municipal Airport	Okeene Municipal Hospital
Okmulgee Regional Airport	Creek Nation Community Hospital (Okemah)
Will Rogers World Airport	– Northwest Surgical Hospital (Oklahoma City)
	– OU Medical Center (Oklahoma City)
	– Veterans Affairs Medical Center (Oklahoma City)
	– Incoming flights from across state
Ponca City Regional Airport	Alliance Health Ponca City
Robert S. Kerr Airport	Eastern Oklahoma Medical Center (Poteau)
Prague Municipal Airport	Prague Community Hospital
Stillwater Regional Airport	Stillwater Medical Center

TABLE 34 – AIRPORTS IN OKLAHOMA THAT SUPPORT PATIENT TRANSFERS

Airport	Hospital Supported (City)
Tahlequah Municipal Airport	WW Hasting Memorial Hospital (Tahlequah)
Tulsa International Airport	<ul style="list-style-type: none"> <li>– Oklahoma Surgical Center (Tulsa)</li> <li>– Southwestern Regional Medical Center (Tulsa)</li> <li>– St. John Medical Center (Tulsa)</li> <li>– Incoming flights from across state</li> </ul>
Hefner-Easley Airport	Wagoner Community Hospital
Watonga Regional Airport	Mercy Hospital Watonga

Source: OAC Study Research

### 3. Does your hospital/clinic use air ambulance for air care transport?

In addition to hospital helipads, 33 public airports in Oklahoma report they support air ambulance operations for air care transport. Air Evac Lifeteam, LifeFlight, Air Methods, Medi Flight, Tulsa Life Flight, Apollo MedFlight, and Med-Trans all provide air medical services in Oklahoma utilizing helicopter and/or fixed-wing aircraft. Survey responses show which airports are utilized for air ambulance patient transport; this information is summarized in **Table 35 – Airports in Oklahoma that Support Air Ambulance Operations** below.

TABLE 35 – AIRPORTS IN OKLAHOMA THAT SUPPORT AIR AMBULANCE OPERATIONS

Airport	Hospital Supported (City)
Ada Municipal Airport	<ul style="list-style-type: none"> <li>– Chickasaw Nation Medical Center (Ada)</li> <li>– Mercy Hospital Ada</li> </ul>
Altus-Quartz Mountain Airport	Jackson County Memorial Hospital (Altus)
Alva Municipal Airport	Share Medical Center (Alva)
Stan Stamper Municipal Airport	Pushmataha Hospital (Antlers)
Ardmore Downtown Executive Airport	Mercy Hospital Ardmore
Atoka Municipal Airport	Mary Hurley Hospital (Coalgate)
Beaver Municipal Airport	Beaver County Memorial Hospital (Beaver) to Wiley Post (Oklahoma City)
Boise City Airport	Cimarron Memorial Hospital (Boise City)
Buffalo Municipal Airport	Harper County Memorial Hospital (Buffalo)
Carnegie Municipal Airport	Carnegie Tri-County Municipal Hospital (Carnegie)
Clinton Regional Airport	Alliance Health Clinton
Claremore Regional Airport	Hillcrest Claremore
Cleveland Municipal Airport	Cleveland Area Hospital
City of Coalgate Airport	Mary Hurley Hospital (Coalgate)
Chickasha Municipal	Grady Memorial Hospital (Chickasha)
Durant Regional Airport	Alliance Health Durant
Elk City Regional Business Airport	<ul style="list-style-type: none"> <li>– Roger Mills Memorial Hospital (Cheyenne)</li> <li>– Fairview Regional Medical Center</li> <li>– Great Plains Regional Medical Center (Elk City)</li> </ul>

TABLE 35 – AIRPORTS IN OKLAHOMA THAT SUPPORT AIR AMBULANCE OPERATIONS

Airport	Hospital Supported (City)
Enid Regional Airport	– INTEGRIS Bass Baptist Health Center (Enid) – St. Mary’s Regional Medical Center (Enid)
Guymon Municipal Airport	Beaver County Memorial
Haliburton Field	Duncan Regional Hospital
McAlester Regional Airport	– Mary Hurley Hospital (Coalgate) – Latimer County General (Wilburton) – McAlester Regional Health Center
Okeene Municipal Airport	Okeene Municipal Hospital
Okmulgee Regional Airport	Creek Nation Community Hospital (Okemah)
Ponca City Regional Airport	Alliance Health Ponca City to OKC and TUL
Robert S. Kerr Airport	Eastern Oklahoma Medical Center (Poteau)
Prague Municipal Airport	Prague Community Hospital
Stillwater Regional Airport	Stillwater Medical Center
Tahlequah Municipal Airport	WW Hasting Memorial Hospital (Tahlequah)
Tishomingo Airpark	Mercy Hospital Tishomingo
Tulsa International Airport	St. John Medical Center (Tulsa)
Hefner-Easley Airport	Wagoner Community Hospital
Watonga Regional Airport	Mercy Hospital Watonga
West Woodward Airport	Fairview Regional Medical Center

Source: OAC Study Research

**4. Does your hospital have its own helipad? If yes, how often is it used? Which Air Evac companies utilize the helipad? Do you have your own helicopter and crew?**

There are 75 healthcare facilities in Oklahoma that have their own helipads. **Table 36 – Hospitals in Oklahoma with Helipads** shows how often, on average, each of the helipads is used, as reported in the survey responses.

Three respondents noted that they have their own helicopter or crew. McAlester Regional Health Center owns a Bell 407GX and works closely with McAlester Regional AirCare (Medi-Trans), a critical care air medical flight program that provides a flight and medical crew. OU Hospital has its own helicopter and crew that serves several hospitals. Air Methods supports OU Hospital’s neonatal air services. Comanche County Memorial Hospital, in Lawton, also has its own air ambulance crew and helicopter.

Air ambulance companies including, Air Evac Lifeteam, Tulsa Flight, LifeFlight, Air Methods, and Medi-Flight, work closely with the other Oklahoma healthcare facilities to support efficient patient transport and care.

TABLE 36 – HOSPITALS IN OKLAHOMA WITH HELIPADS

Healthcare Facility (City)	Operations/month	Healthcare Facility (City)	Operations/month
Chickasaw Nation Medical Center (Ada)	6	AllianceHealth Midwest (Midwest City)	5

TABLE 36 – HOSPITALS IN OKLAHOMA WITH HELIPADS

Healthcare Facility (City)	Operations/month	Healthcare Facility (City)	Operations/month
Mercy Hospital Ada	5-20	Eastar Health System (Muskogee)	NA
Jackson County Memorial Hospital (Ada)	10	Norman Regional Health System	NA
Pushmataha Hospital (Antlers)	5	Jane Phillips Nowata Health Center	1
Mercy Hospital Ardmore	10-15	Okeene Municipal Hospital	3
Jane Philips Medical Center (Bartlesville)	3-4	Creek Nation Community Hospital (Okemah)	15
Beaver County Memorial Hospital (Beaver)	<1	INTEGRIS Baptist Medical Center (Oklahoma City)	50-75
Cimarron Memorial Hospital (Carnegie)	3-6	INTEGRIS Southwest Medical Center (Oklahoma City)	NA
Bristow Medical Center (Bristow)	NA	Mercy Hospital Oklahoma City	54
St. John Broken Arrow	<1	OU Medical Center (Oklahoma City)	95
Carnegie Tri-County Municipal Hospital	3-6	St. Anthony Hospital (Oklahoma City)	50
Roger Mills Memorial Hospital (Cheyenne)	2	Pawhuska Hospital, Inc.	NA
Grady Memorial Hospital (Chickasha)	3-4	Perry Memorial Hospital	2
Claremore Indian Hospital	<1	AllianceHealth Ponca City	37
Hillcrest Hospital Claremore	5	Eastern Oklahoma Medical Center (Poteau)	3
Cleveland Area Hospital	5	Prague Community Hospital	2
AllianceHealth Clinton	NA	AllianceHealth Pryor	NA
Mary Hurley Hospital (Coalgate)	4	Purcell Municipal Hospital	NA
Cordell Memorial Hospital	NA	Sequoyah Memorial Hospital & Home Care	2
Hillcrest Hospital Cushing	NA	St. John Sapulpa	NA
Duncan Regional Hospital	30	AllianceHealth Seminole	NA
AllianceHealth Durant	8	Newman Memorial Hospital	1
Fairfax Community Hospital	0	St. Anthony Shawnee Hospital	0
Fairview Regional Medical Center	3	Stillwater Medical Center	35
Memorial Hospital (Frederick)	3	Memorial Hospital of Stilwell	NA
INTEGRIS Grove Hospital	NA	Stroud Regional Medical Center	NA
Mercy Hospital Haldton	5	Northeastern Health System	NA
Elkview General Hospital	5	VW Hastings Indian Hospital	12
Holdenville General Hospital	NA	Choctaw Nation Health Care Center (Talihina)	20
McCurtain Memorial Hospital (Idabel)	NA	Mercy Hospital Tishomingo	2
Comanche County Memorial Hospital	NA	Oklahoma Surgical Hospital	12
Lawton Indian Hospital	2	Saint Francis Hospital	NA
Southwestern Medical Center	30	St. John Medical Center	30-40
Lindsay Municipal Hospital	3	Wagoner Community Hospital	10

TABLE 36 – HOSPITALS IN OKLAHOMA WITH HELIPADS

Healthcare Facility (City)	Operations/month	Healthcare Facility (City)	Operations/month
AllianceHealth Madill	4	Mercy Hospital Watonga	4
Mercy Health Love County (Marietta)	1	Weatherford Regional Hospital	5-10
McAlester Regional Health Center	42	AllianceHealth Woodward	3
INTEGRIS Miami Hospital	3		

Source: OAC Study Research

NA=Did not respond to survey or information not available

**5. Do you have doctors that fly in to your hospital or fly out to other Oklahoma hospitals to harvest tissue or organs for transplant purposes?**

LifeShare of Oklahoma, the only federally-designated organ procurement center in Oklahoma, is based in Oklahoma City, with a remote office in Tulsa. LifeShare utilizes general aviation and commercial service airports in Oklahoma to efficiently transport organ recovery teams and organs and tissues for transplants. Every hospital (145) in Oklahoma has an agreement with LifeShare to allow them to facilitate, recover, and transport organs for transplants.

LifeShare of Oklahoma works closely with Private Jets, Inc., a corporate flight charter company located at Wiley Post Airport in Oklahoma City; together they work to transport organ and tissues in a timely and efficient manner. Private Jets, Inc. utilizes jet aircraft to fly from Wiley Post to airports in Oklahoma, as well as to airports throughout the United States. They have the capability to fly to remote areas in Oklahoma to recover organs for delivery to Oklahoma City or Tulsa hospitals or to other locations that perform transplants. Private Jets, Inc. also flies recovery teams to out-of-state hospitals to procure organs for patients waiting in Oklahoma City and Tulsa for organ transplants. LifeShare of Oklahoma occasionally works with Million Air in Houston for private jet transfers of organs for transplants.

LifeShare also flies certain organs (liver, pancreas, and tissue) to other hospitals in the United States utilizing commercial airlines at Will Rogers World Airport. In addition, their staff frequently travels commercially out of Will Rogers World Airport for training, education, and medical meetings.

Angel Flight of Oklahoma is a volunteer organization that connects patients in need with volunteer pilots who provide free transportation to distant medical centers for specialty treatment. In Oklahoma, there are over 100 pilot volunteers that donate their time, aircraft, and fuel to help patients get the care they need. In 2016, the group donated approximately 400 trips, the majority for patients needing chemotherapy or other cancer treatments. Typically, patients are transferred from their local community to the world-renowned Cancer Treatment Center of America in Tulsa or the MD Anderson Cancer Center in Houston. In 2016, Oklahoma pilots traveled throughout the state to cities including Ada, Muskogee, Enid, Stillwater, and Elk City to bring patients to larger healthcare facilities in the metro areas.

Rural hospitals around the country are continually struggling to provide quality care to their local residents and remain profitable at the same time. Oklahoma is no exception, as several hospitals have closed or downsized in recent years. Dr. Richard Carter, a family practitioner based in Edmonds, started Carter Pro-Care to help manage and supply physicians to critical access (remote and/or rural) hospitals. These hospitals are generally not located close to an urban center so physician transportation from the urban center is not often financially feasible or practical on a regular basis. Carter Pro-Care owns a helicopter to bring physicians to these communities, as needed. Dr. Carter typically utilizes local general aviation airports to access rural hospitals. In



2016, Carter Pro-Care worked with and saw patients at Pawhuska Hospital, Stroud Regional Medical Center, Physicians Hospital in Anadarko, Haskell County Community Hospital, and several smaller hospitals in Kansas. General aviation airports in these rural communities allow Dr. Carter to help these hospitals achieve status as quality facilities.

As this section has shown, aviation plays an important role in helping support healthcare, healthcare facilities, and emergency medical services in Oklahoma. Oklahoma healthcare facilities that provided information for this study are shown in **Table 37 – HealthCare or Emergency Medical Services Supported by Oklahoma Airports**. In addition, during this study’s data collection efforts, airports self-reported ways they support doctors, healthcare services, hospitals/clinics, patient transport, emergency services, and other medical related needs. **Figure 8 – Oklahoma Airports Supporting Emergency and Healthcare Services** provides a map showing the location of all study airports that participate in some way as it relates to improving and supporting healthcare in Oklahoma.

TABLE 37 – HEALTHCARE OR EMERGENCY MEDICAL SERVICES SUPPORTED BY OKLAHOMA AIRPORTS

Facility	City	Facility	City
Chickasaw Nation Medical Center	Ada	Okeene Cardiology Clinic (INTEGRIS)	Okeene
Mercy Hospital Ada	Ada	Creek Nation Community Hospital	Okemah
Jackson County Memorial Hospital	Altus	Cedar Ridge	Oklahoma City
Share Medical Center	Alva	Community Hospital	Oklahoma City
Physicians Hospital in Anadarko	Anadarko	INTEGRIS Baptist Medical Center	Oklahoma City
Pushmataha Hospital	Antlers	McBride Orthopedic Hospital	Oklahoma City
Rowland Ellis Flatt Clinic	Antlers	Mercy Hospital Oklahoma City	Oklahoma City
Mercy Hospital Ardmore	Ardmore	Mercy Rehabilitation Hospital Oklahoma City	Oklahoma City
Jane Phillips Medical Center	Bartlesville	Northwest Surgical Hospital	Oklahoma City
Beaver County Memorial Hospital	Beaver	OK Center for Orthopaedic & Multi-Specialty Hospital	Oklahoma City
The Children’s Center Rehabilitation Hospital	Bethany	Oklahoma Heart Hospital	Oklahoma City
Alliance Health Blackwell	Blackwell	Oklahoma Heart Hospital South	Oklahoma City
Blackwell Cardiology Clinic (INTEGRIS)	Blackwell	Oklahoma Spine Hospital	Oklahoma City
Cimarron Memorial Hospital	Boise City	OneCore Health	Oklahoma City
St. John Broken Arrow	Broken Arrow	OU Medical Center	Oklahoma City
Harper County Community Hospital	Buffalo	Select Specialty Hospital Oklahoma City	Oklahoma City
Carnegie Tri-County Municipal Hospital	Carnegie	St. Anthony Hospital	Oklahoma City
Roger Mills Memorial Hospital	Cheyenne	Surgical Hospital of Oklahoma	Oklahoma City
Grady Memorial Hospital	Chickasha	Veterans Affairs Medical Center	Oklahoma City
Claremore Indian Hospital	Claremore	Perry Memorial Hospital	Perry
Hillcrest Hospital Claremore	Claremore	AllianceHealth Ponca City	Ponca City
Cleveland Area Hospital	Cleveland	Eastern Oklahoma Medical Center	Poteau
AllianceHealth Clinton	Clinton	Prague Community Hospital	Prague

TABLE 37 – HEALTHCARE OR EMERGENCY MEDICAL SERVICES SUPPORTED BY OKLAHOMA AIRPORTS

Facility	City	Facility	City
Mary Hurley Hospital (Coal County General Hospital)	Coalgate	Sequoyah Memorial Hospital & Home Care	Sallisaw
Duncan Regional Hospital	Duncan	Cherokee National Redbird Smith Health Center	Sallisaw
AllianceHealth Durant	Durant	Newman Memorial Hospital	Shattuck
AMG Specialty Hospital Edmond	Edmond	Cornerstone Hospital Shawnee	Shawnee
Great Plains Regional Medical Center	Elk City	St. Anthony Shawnee Hospital	Shawnee
INTEGRIS Bass Baptist Health Center	Enid	Absentee Shawnee Health System	Shawnee
St. Mary's Regional Medical Center	Enid	Haskell County Community Hospital	Stigler
Fairfax Community Hospital	Fairfax	Stillwater Medical Center	Stillwater
Fairview Regional Medical Center	Fairview	Arbuckle Memorial Hospital	Sulphur
Memorial Hospital & Physician Group	Frederick	WW Hastings Indian Hospital	Tahlequah
Mercy Hospital Healdton	Healdton	Choctaw Nation Health Care Center	Talihina
Elkview General Hospital	Hobart	Mercy Hospital Tishomingo	Tishomingo
Hugo Medical Center	Hugo	Triad Eye Institute	Tulsa
McCurtain Memorial Hospital	Idabel	AMG Specialty Hospital Tulsa	Tulsa
Sam Hider Community Clinic (Cherokee Nation)	Jay	Oklahoma Surgical Hospital	Tulsa
Comanche County Memorial Hospital	Lawton	Pinnacle Specialty Hospital	Tulsa
Lawton Indian Hospital	Lawton	Post Acute Medical Specialty Hospital of Tulsa	Tulsa
Southwestern Medical Center	Lawton	Southwestern Regional Medical Center	Tulsa
Young Eye Institute	Lawton	St. John Medical Center	Tulsa
Lindsay Municipal Hospital	Lindsay	Cancer Treatment Center of Tulsa	Tulsa
AllianceHealth Madill	Madill	Carter Pro Care	Various
Mercy Health Love County	Marietta	Vici Health Clinic	Vici
McAlester Regional Health Center	McAlester	Wagoner Community Hospital	Wagoner
INTEGRIS Miami Hospital	Miami	Mercy Hospital Watonga	Watonga
Willow Crest Hospital, Inc.	Miami	Watonga Cardiology Clinic (INTEGRIS)	Watonga
AllianceHealth Midwest	Midwest City	Weatherford Regional Hospital	Weatherford
Jack C. Montgomery VA Medical Center	Muskogee	East Central Oklahoma Family Health Care Center	Wetumka
Jane Phillips Nowata Health Center	Nowata	Latimer County General Hospital	Wilburton
Okeene Municipal Hospital	Okeene	AllianceHealth Woodward	Woodward

Source: OAC Study Research

FIGURE 8 – OKLAHOMA AIRPORTS SUPPORTING EMERGENCY AND HEALTHCARE SERVICES



Source: OAC Study Research and Oklahoma Study Airports

Figure 8 reflects all study airports that were reported as supporting healthcare and/or emergency services in Oklahoma.

## 8.4 Business Benefits from Using Airports and Aviation

Many businesses in Oklahoma improve their efficiency by using aviation. Business efficiency is improved by using general aviation, commercial aviation, and air cargo/air freight. Several research and outreach efforts were undertaken to help provide a general context for other jobs in Oklahoma that benefit from or have improved efficiency from using aviation. These jobs are in addition to those identified as being supported by the study airports, military aviation, and off-airport aviation and aerospace employers in Oklahoma. These jobs are not 100% aviation-dependent, but they do benefit from and rely on various aviation sectors.

Companies in Oklahoma benefit when employees have reduced travel times to reach both domestic and international destinations. All four of the commercial service airports offer non-stop and connecting flights to destinations throughout the county and around the world. Many companies in Oklahoma have employees who travel on commercial airline flights on a frequent basis. Other Oklahoma employers benefit because staff in branch locations, customers, and suppliers can travel to see them on a commercial airline flight. Commercial airline flights help to support various travel and connectivity needs for many businesses in Oklahoma.

Through general aviation, employees can fly directly to locations not served by commercial airlines; general aviation enables employees to fly on their own timetable, avoiding additional travel time for security and airline connections. The economic benefits associated with businesses in Oklahoma that own, rent, or charter general aviation aircraft have not been previously measured in this study. For all employers who use general aviation as a business tool, their employees benefit from added efficiency. Similar to commercial airline travel, many Oklahoma businesses also have customers or suppliers who visit them using general aviation. It is also common for Oklahoma businesses, manufacturers, and the state's vast agricultural industry to use general aviation to receive just-in-time shipments of critical parts and other supplies.

Many jobs in Oklahoma also benefit from traditional air shipments. There are many jobs in the state that have improved efficiency as a result of shipping and receiving via air cargo/freight. Some manufacturing companies in Oklahoma use air cargo/freight to either ship the goods they manufacture or to receive the

supplies/materials that go into their products. Aviation is an essential component of logistics and supply-chain management.

This section provides an estimate of jobs in Oklahoma that have improved efficiency on a regular basis because they rely on and benefit from commercial aviation, general aviation, and/or air shipping. The impacts estimated in this section include those associated with aviation-reliant jobs in Oklahoma.

Additional analysis, supported by the IMPLAN model, was undertaken to identify jobs throughout the state that have improved efficiency from using aviation. Jobs identified in this effort include those that have improved efficiency from using general aviation, commercial aviation, and air cargo/air freight. Benefits by employment sectors that were already considered were removed from this analysis.

**Table 38 – Improved Job Efficiency Through Aviation Use** provides information on jobs in Oklahoma that have improved efficiency as a result of aviation. **Table 38** also shows the payroll, spending, and the annual economic activity associated with jobs in Oklahoma that have improved efficiency as a result of their reliance on aviation. As shown in **Table 38**, there are an estimated 34,787 Oklahoma direct jobs that have improved efficiency because they rely on and benefit from aviation. These jobs have a direct total annual estimated payroll of \$1.7 million, direct annual spending estimated at \$3.3 million, and total annual direct economic activity estimated at just over \$5 million.

TABLE 38 – IMPROVED JOB EFFICIENCY THROUGH AVIATION USE

Economic Measure	Direct Impact
Employment (jobs)	34,787
Annual Payroll	\$1,691,274,366
Annual Spending	\$3,340,181,215
Annual Economic Activity	\$5,031,455,581

Source: IMPLAN and Study Surveys

As part of the update to Oklahoma’s Statewide Aviation Economic Impact Study, outreach to businesses and business-related groups in the state was undertaken to gather information to drill down into how companies use aviation to improve their efficiency. This outreach included an online business survey.

A statewide press release provided study background and a link to the online survey. The release was distributed to newspapers and media outlets throughout Oklahoma. In addition, chambers of commerce and economic development groups were provided a similar package to share with their members. AOPA’s and National Business Aviation Association’s (NBAA) Oklahoma members were also provided the survey link. The goal of this outreach was to enable any company or employer in Oklahoma to provide input on how they use and benefit from Oklahoma airports. The online business survey was available for six months between the end of 2016 through May 2017.

The online business survey sought information on how Oklahoma businesses use and benefit from commercial airline service, general aviation, and air cargo/freight. Results from the online business survey are summarized as follows:

- 89% of survey respondents indicate that their business, employees, and customers rely at least to some extent on relies on scheduled commercial airline service.

- 51% of survey respondents report gains in efficiency from using general aviation. This includes businesses owning a general aviation aircraft, renting or chartering general aviation aircraft, and/or having customers/suppliers who travel to Oklahoma using general aviation.
- 46% of responding businesses indicate they rely on air cargo or air freight shipments at least once a month.

These results help to substantiate how businesses in Oklahoma rely on aviation to improve their efficiency and the efficiency of their employees.

The survey also asked businesses to provide information on how important proximity to an airport or aviation services is to the success of their operation or to the potential expansion of their company in Oklahoma. While proximity to an airport or to aviation services is seldom the number one factor that attracts a business to a specific location, as survey results show, airports are important to attracting and then retaining employment in Oklahoma. Responding businesses ranked factors from 10 (most important) to one (least important) as they relate the location of their business in Oklahoma.

As part of the business survey, respondents were asked to rank 13 factors from most to least important as the factor relates to their location in Oklahoma. **Figure 9 – Factors Influencing Business Locations in Oklahoma** summarizes the results of the “locational” question from the business survey. The factors shown in **Figure 9** are those typically used by economic development groups when they are screening candidate locations for business customers.

FIGURE 9 – FACTORS INFLUENCING BUSINESS LOCATIONS IN OKLAHOMA



Source: Study Survey

Airport interviews conducted for this OAC study show that most Oklahoma airports serve business users. Some, but not all, airports were able to provide examples of local and visiting businesses that they serve. Many companies who use general aviation choose not to reveal their identity. As a result, it is not possible to identify all specific businesses that use Oklahoma airports. For those airports that were able to report on specific business users, **Appendix A, Table 1 – Local and Visiting Business Users** identifies these businesses. This information helps to support the wide variety of non-aviation businesses that rely on and benefit from using Oklahoma’s airports.

## 8.5 UAS/UAV Activity in Oklahoma

Aviation and aerospace have long been cornerstones of Oklahoma's economy. While unmanned vehicles (UASs, UAVs, or drones) are now most frequently launched from sites other than public airports, many in the aviation industry expect that this emerging technology and vehicles that are a part of it will become more frequent users of public airports. There are even those in the aviation industry who believe that we will one day see unmanned commercial aviation flights!

Given Oklahoma's prominence in aviation and aerospace, it is not surprising that the state has taken steps to be at the forefront of the UAS/UAV industry. In February 2009, Oklahoma established its own approved chapter of Association for Unmanned Vehicle Systems International (AUVSI); this chapter is known as USA-OK. USA-OK supports small companies involved in research, development, testing, evaluation, and production of unmanned systems. The establishment of USA-OK was followed in the summer of 2011 with Governor Mary Fallin's organization the Governor's Unmanned Aerial System's Council. This group of Governor appointed representatives includes representatives from science, research, academia, aviation, and the military.

In March 2013, the AUVSI published their Economic Impact of Unmanned Aircraft System Integration in the United States. At the time of the release of this report, AUVSI estimated that between 2015 and 2025, nationally, there would be an estimated \$82 billion in new economic activity and 100,000 new jobs from research, development, and production related to unmanned systems. The study identified the top 10 states that would most likely reap the benefits from new activity associated with the unmanned systems movement; Oklahoma was not included in the top ten.

This is not to say that AUVSI did not see benefits for Oklahoma from growth in this industry. The AUVSI study indicated between 2015 and 2025, Oklahoma could expect the following economic impacts from growth in UAS/UAV activities:

- 637 new jobs
- \$5.61 million in additional tax revenue
- \$805 million in annual economic activity

The AUVSI study did note that states that create a favorable regulatory and business environment for unmanned vehicles would be the ones that realize the greatest economic gains. Oklahoma certainly fits into that category. The AUVSI publication has not been updated since 2013, so there is no data to show how AUVSI projections have tracked. Based on available information, however, the growth that AUVSI projected for this industry has not materialized as rapidly as expected.

The AUVSI study identified certain conditions that were required to realize their projections of growth associated with UAS/UAV. One of these conditions was quick FAA approval for the use of this technology. FAA's slow reaction to regulatory requirements for UAS/UAV use has undoubtedly slowed projected growth and predicted economic impacts.

Several points are noteworthy related to UAS/UAV activity in Oklahoma. For UAS/UAV activity that is taking place, most is not connected with a public airport. UASs/UAVs being used for commercial purposes are more often than not launched from a site other than an airport. As a result, there is no current mechanism for tracking how much UAS/UAV activity is taking place in the state. While UAS/UAV activity is regulated by FAA guidelines, the frequency and/or the volume of activity is not monitored.

Much of the research and development for unmanned vehicles takes place in companies that are not exclusively dedicated to UAS/UAV activity. Firms engaged in UAS/UAV activities are most often multi-faceted,

making it difficult to accurately identify which companies and businesses in Oklahoma that are engaged in UAS/UAV activities.

As part of this project, research was conducted in an attempt to identify businesses in Oklahoma that are engaged in some way in this technology. This research was conducted by the Oklahoma Department of Commerce. **Appendix A, Table 2 – UAS/UAV Companies in Oklahoma** provides a list of companies that were identified as potentially being engaged, at least to some extent, in UAS/UAV activities. This list was current at the time the research for this OAC study was conducted (Winter 2016). Given the emerging status of this industry/technology, this list could experience significant change in the future.

As part of this OAC study, students from the University of Oklahoma helped to provide additional research as it relates to UAS/UAV's in Oklahoma. According to student findings, Oklahoma is still very early in the development stage of the UAS/UAV industry and is taking "baby steps" towards furthering this aspect of its aerospace industry. The economic impact of the UAS/UAV industry is currently marginal, according to student research, and extremely hard to measure as many companies involved in UAS/UAV do not tend to last very long and have high employee turnover rates.

Oklahoma is a UAS-friendly state with little interference from state laws and regulations to limit UAS/UAV activity. Oklahoma provides an open regulatory atmosphere for this emerging industry to thrive. Many other states have much stricter regulations concerning UAS/UAV activity, and their restrictions can severely hinder up and coming companies in this emerging industry. According to study research, the manifestation of economically influential UAS/UAV jobs in Oklahoma is not faring as well as other states, but is still definitely in the top third nationally. States such as North Dakota, Nevada, Oregon, Washington, and California currently have more notable UAS/UAV activity taking place.

Oklahoma, on the other hand, is in the top five states for UAS/UAV activities concerning academics and research. Oklahoma's prominence in this area is a result of research teams from The University of Oklahoma (OU) and Oklahoma State University (OSU). The National Weather Service just recently began funding research for weather and the atmosphere utilizing UAS. OSU was one of the first universities in the country to begin offering a graduate engineering degree specifically tailored to the UAS/UAV field.

Information collected for this study shows that OSU's UAS/UAV program has 20 full-time teaching or administrative staff. OSU offers UAS as a graduate studies option in their Mechanical and Aerospace Engineering program, and an undergraduate minor in Aviation Education for remote pilot operation of UAS/UAV vehicles. At the graduate and undergraduate levels, there are approximately 50 students enrolled in UAS/UAV programs at OSU.

OU has about 12 full and part-time staff providing training/education on various aspects of UAS/UAV. At the Undergraduate level, OU provides classes on Introduction to UAS and a UAS Knowledge Seminar. Currently, they have about 25 students enrolled in these programs.

As of the writing of this report, according to student research, the most prominent use for UAS/UAV in Oklahoma is for military research, conducted by many of the major aerospace companies in the state such as Boeing, Northrop Grumman, and General Electric. In Oklahoma, according to student research, the biggest hindrances to growth in the industry are labor costs and FAA visual line of sight (VLOS) rules.

American companies engaged in UAS/UAV activities are having a difficult time competing with labor costs in other countries. Revenue generated by UAS/UAV endeavors is currently very low, as opposed to the high upfront costs that these business encounter. VLOS rules also currently only allow UAS to be operated within line of sight, by one operator at a time. If the FAA re-evaluates their rules, there could potentially be significant

growth in the UAS/UAV industry in Oklahoma in the form of cargo transportation services, agriculture surveying, pipeline/powerline monitoring, and weather research.

Currently, research indicates that Oklahoma could see small changes in its UAS/UAV industry begin to take place within the next five years, with more significant changes taking place within ten years. Based on current information, positive economic impacts in Oklahoma from this industry could begin to become notable around the five-year mark.

## 9.0 ECONOMIC BENEFITS OF MILITARY AVIATION IN OKLAHOMA

The OAC study measured annual economic contributions from three primary sources: 109 public commercial and general aviation airports, military aviation, and aviation and aerospace employers in Oklahoma not located at one of the study airports. Oklahoma's military installations are vital to the nation, playing a key role in national security. The Air Force Bases in Oklahoma train our future airmen and manufacture and repair the material used to equip and supply the U.S. military.

This section of the report discusses the economic impacts of the three major Air Force Bases in Oklahoma: Altus, Tinker, and Vance. **Figure 1** shows the location of each Air Force Base. In addition, economic impacts of off-airport activities associated with the Oklahoma Army Air Guard are also estimated in this section.

Similar to public airports included in OAC's statewide economic impact research, the aviation military installations in Oklahoma are major centers of employment and contributors to the state's economy. Each installation has military employment, along with varying levels of civilian and contract employment. The operation of each Air Force Base and the Oklahoma Army Air Guard locations support thousands of jobs and the annual payroll associated with these jobs.

Just like the public commercial and general aviation airports analyzed in this report, military aviation has both direct and indirect/induced annual economic impacts. Indirect/induced economic impacts are attributable to the multiplier effect. As with the public airports, the IMPLAN input/Economic Activity model was used to estimate indirect/induced employment, payroll, and spending impacts associated with the annual aviation related military activity in Oklahoma.

Military installations also have spending related to investment made for capital improvements to maintain and expand infrastructure. The Oklahoma Department of Commerce worked directly with each Air Force Base to identify investment that has been made related to capital improvement projects. Impacts discussed in this section for capital investment are based on the most recent year of capital investment spending. The Air Guard provided their information on recent capital investment so that it could be analyzed and incorporated into study results.

Once spending for capital projects was identified, the IMPLAN model was used to determine the number of direct jobs and direct annual payroll that this investment supports. Once direct construction related impacts for employment, payroll, and spending were estimated, the IMPLAN model was used to estimate indirect/induced impacts that are generated through the multiplier effect.

The economic impacts presented in this section focus on measuring the benefits of the active military. Military related activities not measured in this economic report include: Military Recruiting, Veterans Affairs, Military Hospitals, and the Army Corps of Engineers. Each of these organizations serves a vital role in the preparedness, morale, and health of the military and its veterans, but these activities were not included in this economic impact analysis, nor were the impacts that retired veterans have on the Oklahoma economy. Many retired veterans choose to live in Oklahoma to be near a military installation or a VA Hospital. Military veterans do



contribute to the Oklahoma economy; however, their impacts were not measured in the report, as the focus of this study was on impacts associated with the active military installations.

The following sections provide estimated economic impacts for each Air Force Base in Oklahoma and the Oklahoma Army Air Guard.

## 9.1 Economic Impact of Altus Air Force Bases

Altus Air Force Base first became operational in 1943. It is regarded as the premier air mobility training location for the US Air Force. The base was home to the 577th Strategic Missile Squadron in the 1960's; this Squadron was in charge of 12 missiles in the area surrounding the base. The current mission of the base is focused on training military personnel. Current aircraft based at Altus AFB include the:

- C-17 Globemaster III
- KC 135 Stratotanker
- KC-46A Pegasus

Altus Air Force Base is home to the 97th Air Mobility Wing. In 1992, the 97th Bombardment Wing was inactivated at Eaker AFB and reactivated at Altus AFB as the 97th Air Mobility Wing. The 97th Air Mobility Wing consists of the 97th Mission Support Group, the 97th Medical Group, the 97th Maintenance Directorate, and four squadrons within the 97th Operations Group.

Additionally, the HQ Air Mobility Command Detachment 2 is also stationed at Altus AFB. This group certifies the performance of all C-17, KC-135, and KC-46 flight crew simulators and devices worldwide. The 97th Air Mobility Wing presently operates the only heavy mobility and air refueling school in the USAF. In addition to the airfield at Altus AFB, the 97th Air Mobility Wing also trains at the Burns Flat/Clinton-Sherman Airfield in western Oklahoma.

Units at this Base include the following:

- 97th Ops Group
  - 97th Operations support Squadron
  - 58th Airlift Squadron
  - 54th Air Refueling Squadron
  - 97th Training Squadron
- 97th MX Directorate
  - 97th MX Division
  - 97th MX Operations Division
  - 97th Aircraft MX Division
- 97th Medical Group
  - 97th Medical Operations Squadron
  - 97th Medical Support Squadron
- 97th Mission Support
  - 97th Force Support Squadron
  - 97th Civil Engineer Squadron
  - 97th Security Forces Squadron
  - 97th Logistics Readiness Squadron

- 97th Communications Squadron

**Table 39 – Annual Operational Impacts for Altus AFB** summarizes total annual economic impacts associated with the annual operation of Altus AFB.

TABLE 39 – ANNUAL OPERATIONAL IMPACTS FOR ALTUS AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	4,827	\$309,391,802	\$334,845,216	\$644,237,018
Indirect	1,179	\$59,822,356	\$153,613,344	\$213,435,700
Induced	2,076	\$82,060,494	\$210,019,983	\$292,080,477
<b>Total</b>	<b>8,081</b>	<b>\$451,274,651</b>	<b>\$698,478,544</b>	<b>\$1,149,753,195</b>

Source: Oklahoma Department of Commerce

As **Table 39** shows, when direct and indirect/induced impacts are considered, the operation of Altus AFB accounts for the following total annual economic impacts:

- Base operations support a total of 8,081 jobs.
- Total annual payroll associated with the 8,081 jobs is estimated at over \$451 million.
- Total annual spending related to supporting operations at the base is estimated at over \$698 million.
- The total annual economic activity supported by operations at Altus AFB is estimated at \$1.15 billion.

In addition to these economic impacts from the operation of the base, there are other impacts associated with capital investment at Altus AFB. Spending is needed on an annual basis to maintain and improve infrastructure. As with all construction impacts measured in this report, economic impacts related to capital spending are present only when the actual construction is taking place; they are not on-going, unless a similar or higher level of investment is made in subsequent years.

Construction related impacts are, nevertheless, an important part of the total annual economic contribution that Oklahoma and its economy realizes from Altus AFB. **Table 40 – Annual Construction Impacts for Altus AFB** provides information that shows the additional annual economic impact at Altus AFB that result from capital spending.

TABLE 40 – ANNUAL CONSTRUCTION IMPACTS FOR ALTUS AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	609	\$14,219,382	\$52,310,825	\$66,530,207
Indirect	142	\$3,287,295	\$10,762,529	\$14,049,824
Induced	48	\$1,265,109	\$4,972,224	\$6,237,333
<b>Total</b>	<b>800</b>	<b>\$18,771,786</b>	<b>\$68,045,578</b>	<b>\$86,817,364</b>

Source: Oklahoma Department of Commerce

As shown in **Table 40**, capital spending supports the following additional annual economic impacts:

- For the most recent year, capital spending for infrastructure improvements or maintenance supported an estimated 800 additional jobs.

- These 800 jobs have a total annual payroll estimated at \$18.8 million.
- Total annual capital spending is estimated at \$68 million.
- Total annual direct and indirect/induced annual economic activity for capital investment at Altus AFB is estimated at \$86.8 million.

**Table 41 – Total Annual Economic Impacts for Altus AFB** presents total annual economic impacts for Altus AFB, as estimated in this OAC report.

TABLE 41 – TOTAL ANNUAL ECONOMIC IMPACTS FOR ALTUS AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	5,436	\$323,611,183	\$387,156,042	\$710,767,225
Indirect	1,321	\$63,109,651	\$164,375,873	\$227,485,524
Induced	2,124	\$83,325,603	\$214,992,207	\$298,317,810
<b>Total</b>	<b>8,881</b>	<b>\$470,046,437</b>	<b>\$766,524,122</b>	<b>\$1,236,570,559</b>

Source: Oklahoma Department of Commerce

As shown in **Table 41**, when total annual (direct, indirect, and induced) economic impacts associated with operating the base and investing in capital projects are considered, total annual economic impacts for Altus AFB are estimated as follows:

- 8,881 jobs
- Annual payroll of \$470 million
- Annual spending of \$767 million
- Annual economic activity of \$1.24 billion

## 9.2 Economic Impact of Tinker Air Force Base

Located in central Oklahoma near Midwest City and Del City, Tinker AFB is a major military installation that provides depot maintenance for aircraft in the USAF, the Air Force Reserve, the Air National Guard, the Navy, as well as aircraft for foreign allies. In April 1941, the War Department announced the location of an air materials depot to be named Midwest Air Depot. This later became the Oklahoma City Air Depot when it was activated in March 1942. Adjacent to the Depot, Douglas Aircraft Company built an assembly plant that assembled C-47 cargo planes during WWII. During the war, the installation was renamed Tinker AFB in honor of Major General Clarence Tinker, who lost his life in a bombing mission.

Tinker Air Force Base is the largest single site employer in Oklahoma. The AFB includes the 72nd Air Base Wing (ABW). The 72nd ABW provides essential support services for civilian and military personnel assigned to the base. Operations at the base also support activities for over 2,000 contractors, 18,000 dependents, and more than 36,000 military retirees and their family members who reside within a six-county area surrounding Tinker AFB. The wing provides critical base functions including: security, fire protection, medical services, civil engineering, communications and supply, transportation, and airfield operations.

Units at Tinker AFB include:

- 72nd Medical Group
- 72nd Mission Support Group

- 72nd Operations Support Squadron
- 72nd Logistics Readiness Squadron
- Civil Engineer Directorate
- Communication Directorate
- OK City Air Logistics Complex

The Air Logistics Complex provides maintenance for the C/KC-135, B-1B, B-52, and E-3 aircraft; expanded phase maintenance on the Navy’s E-6 aircraft; and maintenance, repair, and overhaul of the F100, F101, F108, F110, F117, F118, F119, and TF33 engines. The complex is responsible for the maintenance, repair, and overhaul of a myriad of Air Force and Navy airborne accessory components. The Complex is also responsible for the development and sustainment of a diverse portfolio of operational flight programs, test program sets, automatic test equipment, and industrial automation software.

With aging aircraft, the Air Logistics Complex has been replacing parts on aircraft that were never meant to be replaced because the aircraft were not expected to have such an extensive life expectancy. The work performed at the base ensures that aircraft are safe, as the aircraft are first disassembled and then rebuilt from the ground up. The Wing is also responsible for maintenance and overhaul on over 22,000 engines for a range of bomber, refueling, cargo, and fighter aircraft.

Tinker AFB is home to eight major Department of Defense, Air Force, and Navy activities, all of which have critical national defense missions. These include:

- 448th Supply Chain Management Wing
- 552nd Air Control Wing
- Navy’s Strategic Communication Wing ONE
- 507th Air Refueling Wing
- 3rd Combat Communications Group
- 38th Cyberspace Engineering Group
- Defense Distribution Depot Oklahoma
- Defense Information Security Agency Defense Enterprise Computing Center

**Table 42 – Annual Operational Impacts for Tinker AFB** summarizes total annual economic impacts that are associated with the annual operation of Tinker AFB.

TABLE 42 – ANNUAL OPERATIONAL IMPACTS FOR TINKER AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	21,654	\$2,116,500,285	\$8,939,439,401	\$11,055,939,686
Indirect	13,309	\$742,772,476	\$1,585,059,990	\$2,327,832,466
Induced	15,745	\$622,467,222	\$1,593,124,978	\$2,215,592,200
<b>Total</b>	<b>50,708</b>	<b>\$3,481,739,983</b>	<b>\$12,117,624,369</b>	<b>\$15,599,364,352</b>

Source: Oklahoma Department of Commerce

As **Table 42** shows, when direct and indirect/induced impacts are considered, the operation of Tinker AFB accounts for the following total annual economic impacts:

- Base operations support a total of 50,708 jobs
- Total annual payroll associated with the 50,708 jobs is estimated at almost \$3.5 billion
- Total annual operational spending for Tinker AFB is estimated at \$12.1 billion
- Total annual economic activity related to supporting operations at the base is estimated at almost \$15.6 billion

In addition to these operational impacts, there are other impacts associated with capital investment at Tinker AFB. Spending is needed on an annual basis to maintain and improve infrastructure at the base. As with all construction impacts measured in this report, economic impacts related to capital spending are present only when the actual construction is taking place; they are not on-going unless similar investment takes place in subsequent years.

Construction related impacts are an important part of the total annual economic contribution that Oklahoma and its economy realizes from Tinker AFB. **Table 43 – Annual Construction Impacts for Tinker AFB** provides information that shows the additional annual economic impacts from Tinker AFB that result from capital spending.

TABLE 43 – ANNUAL CONSTRUCTION IMPACTS FOR TINKER AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	2,500	\$231,446,357	\$746,770,981	\$978,217,338
Indirect	1,637	\$85,620,991	\$175,811,244	\$261,432,235
Induced	2,056	\$84,685,959	\$202,205,575	\$286,891,534
<b>Total</b>	<b>6,193</b>	<b>\$401,753,307</b>	<b>\$1,124,787,800</b>	<b>\$1,526,541,107</b>

Source: Oklahoma Department of Commerce

As shown in **Table 43**, capital spending supports the following additional annual economic impacts:

- On an annual basis, capital spending for infrastructure improvements or maintenance supports an estimated 6,193 additional jobs.
- These 6,193 jobs have a total annual payroll estimated at almost \$402 million.
- Total annual direct and indirect/induced annual capital spending at Tinker AFB is estimated at \$1.2 billion.
- Total annual economic activity for annual construction related impacts at Tinker AFB are estimated at \$1.5 billion.

**Table 44 – Total Annual Economic Impacts for Tinker AFB** presents total annual economic impacts for Tinker AFB, as estimated in this OAC report.

TABLE 44 – TOTAL ANNUAL ECONOMIC IMPACTS FOR TINKER AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	24,154	\$2,347,946,642	\$9,686,210,382	\$12,034,157,024
Indirect	14,945	\$828,393,467	\$1,760,871,234	\$2,589,264,701
Induced	17,801	\$707,153,181	\$1,795,330,553	\$2,502,483,734

TABLE 44 – TOTAL ANNUAL ECONOMIC IMPACTS FOR TINKER AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Total	56,901	\$3,883,493,290	\$13,242,412,169	\$17,125,905,459

Source: Oklahoma Department of Commerce

As shown in **Table 44**, when total annual (direct, indirect, and induced) economic impacts associated with operations and capital investment are considered, total annual economic impacts for Tinker AFB are estimated as follows:

- 56,901 jobs
- Annual payroll of \$3.9 billion
- Annual spending of \$13.2 billion
- Annual spending or economic activity of \$17.1 billion

### 9.3 Economic Impact of Vance Air Force Base

The mission of Vance Air Force Base is to develop professional airmen, deliver world-class U.S. and Allied pilots, and deploy combat-ready warriors. The base was first activated as an Army Air Corps Basic Flying School in 1941. It was reopened as a permanent installation under the newly created Air Force in 1948. Today, this AFB is used for training Air Force student pilots to support the U.S. military and our Allies in theaters across the world. The Wing reports to the Air Education and Training Command. Units at the Base include:

- 71st Operations Group (Flying Training Wing)
  - 3rd Flying Training Squadron
  - 5th Flying Training Squadron
  - 8th Flying Training Squadron
  - 25th Flying Training Squadron
  - 31st Flying Training Squadron
  - 71st OSS
  - 71st STURON (Student Squadron)
- 71st Medical Group

In 2016, the Wing flew 67,663 flying hours in the T-1A Jayhawk, T-6A Texan II, and T-38C Talon. Current aircraft at Vance AFB include the following: T-1 Jayhawk, T-6 Texan, and T-38 Talon.

Vance AFB is located in northwest Oklahoma adjacent to Enid; the base originated as a flight school and trained thousands of pilots for WWII. Vance AFB is named for Lt. Col. Leon Vance, a WWII Medal of Honor recipient who was born and raised in Enid. The 71st Flying Training Wing is the host unit at Vance AFB.

**Table 45 – Annual Operational Impacts for Vance AFB** summarizes the total annual economic impacts that are associated with the operation of Vance AFB.

TABLE 45 – ANNUAL OPERATIONAL IMPACTS FOR VANCE AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	2,685	\$146,755,595	\$244,809,074	\$391,564,669
Indirect	1,443	\$67,554,535	\$163,068,004	\$230,622,539
Induced	1,205	\$47,623,139	\$121,878,929	\$169,502,068
<b>Total</b>	<b>5,333</b>	<b>\$261,933,269</b>	<b>\$529,756,007</b>	<b>\$791,689,276</b>

Source: Oklahoma Department of Commerce

As **Table 45** shows, when direct and indirect/induced impacts are considered, the operation of Vance AFB accounts for the following total annual economic impacts:

- Base operations support a total of 5,333 jobs
- Total annual payroll associated with the 5,333 jobs is estimated at almost \$262 million
- Total annual spending related to operations at the AFB is estimated at \$530 million
- Total annual economic activity generated by Base operations is estimated at \$792 million

In addition to these operational impacts, there are other impacts associated with capital investment at Vance AFB. This spending is needed to maintain and improve infrastructure. With all construction impacts measured in this report, economic impacts related to capital spending are present only when the actual construction is taking place; they are not on-going. Construction related impacts are, nevertheless, an important of the total annual economic contribution that Oklahoma and its economy realizes from Vance AFB.

**Table 46 – Annual Construction Impacts for Vance AFB** provides information that shows the additional annual economic impacts at Vance AFB that result from capital spending.

TABLE 46 – ANNUAL CONSTRUCTION IMPACTS FOR VANCE AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	630	\$27,048,219	\$61,216,089	\$88,264,308
Indirect	186	\$7,157,524	\$18,208,908	\$25,366,432
Induced	162	\$4,937,270	\$14,820,457	\$19,757,727
<b>Total</b>	<b>977</b>	<b>\$39,143,013</b>	<b>\$94,245,454</b>	<b>\$133,388,467</b>

Source: Oklahoma Department of Commerce

As shown in **Table 46**, capital spending supports the following additional annual economic impacts:

- On an average annual basis, capital spending for infrastructure improvements or maintenance supports an estimated 977 additional jobs.
- These 977 jobs have a total annual payroll estimated at over \$39 million.
- Total annual direct and indirect/induced average annual capital investment spending at Vance AFB is estimated at \$94 million.
- Total annual economic activity generated by the Base is estimated at \$133 million.

**Table 47 – Total Annual Economic Impacts for Vance AFB** presents total annual economic impacts for Vance AFB as estimated in this OAC report.

TABLE 47 – TOTAL ANNUAL ECONOMIC IMPACTS FOR VANCE AFB

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	3,315	\$173,803,814	\$306,025,163	\$479,828,977
Indirect	1,629	\$74,712,059	\$181,276,912	\$255,988,971
Induced	1,367	\$52,560,409	\$136,699,386	\$189,259,795
<b>Total</b>	<b>6,310</b>	<b>\$301,076,281</b>	<b>\$624,001,462</b>	<b>\$925,077,743</b>

Source: Oklahoma Department of Commerce

As shown in **Table 47**, when total annual (direct, indirect, and induced) economic impacts associated with operating expense and impacts associated with capital investment and other expenditures are considered, total annual economic impacts for Vance AFB are estimated as follows:

- 6,310 jobs
- Annual payroll of \$301 million
- Total annual spending of \$624 million
- Annual economic activity of \$925 million

## 9.4 Total Economic Impact of Altus, Tinker, and Vance Air Force Bases

As the previous sections of this report illustrated, Oklahoma’s three major Air Force Bases provide a significant boost to the state’s economy, both on an individual and collective basis. As already alluded to in this report, military presence in Oklahoma has been a driver in attracting various types of aviation related training and educational programs to many institutions in the state. As will be demonstrated in the next section of this report, the three Air Force Bases have also attracted many military and defense contractors and suppliers to Oklahoma, generating even greater economic benefit for the state.

**Table 48**, **Table 49**, and **Table 50** show the combined statewide annual economic impact of Altus, Tinker, and Vance Air Force Bases. Economic impacts presented in the summary table include those associated with the annual operation of each base and construction related impacts.

TABLE 48 – TOTAL ANNUAL OPERATIONAL IMPACTS FROM ALTUS, TINKER, & VANCE AFBs

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	29,166	\$2,572,647,682	\$9,519,093,691	\$12,091,741,373
Indirect	15,930	\$870,149,366	\$1,901,741,339	\$2,771,890,705
Induced	19,026	\$752,150,855	\$1,925,023,890	\$2,677,174,745
<b>Total</b>	<b>64,122</b>	<b>\$4,194,947,903</b>	<b>\$13,345,858,920</b>	<b>\$17,540,806,823</b>

Source: Oklahoma Department of Commerce



TABLE 49 – TOTAL ANNUAL CONSTRUCTION IMPACTS FROM ALTUS, TINKER, & VANCE AFBs

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	3,739	\$272,713,957	\$860,297,896	\$1,133,011,853
Indirect	1,965	\$96,065,811	\$204,782,680	\$300,848,491
Induced	2,266	\$90,888,339	\$221,998,255	\$312,886,594
<b>Total</b>	<b>7,969</b>	<b>\$459,668,106</b>	<b>\$1,287,078,832</b>	<b>\$1,746,746,938</b>

Source: Oklahoma Department of Commerce

TABLE 50 – TOTAL ANNUAL ECONOMIC IMPACTS OF ALTUS, TINKER, & VANCE AFBs

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	32,905	\$2,845,361,639	\$10,379,391,587	\$13,224,753,226
Indirect	17,895	\$966,215,177	\$2,106,524,019	\$3,072,739,196
Induced	21,292	\$843,039,194	\$2,147,022,145	\$2,990,061,339
<b>Total</b>	<b>72,091</b>	<b>\$4,654,616,009</b>	<b>\$14,632,937,752</b>	<b>\$19,287,553,761</b>

Source: Oklahoma Department of Commerce

As **Table 50** summarizes, when all impacts are considered, the three major Air Force Bases in Oklahoma provide the following:

- They support 72,091 jobs
- These jobs have an associated annual payroll of \$4.7 billion
- Spending to support operational and construction needs is \$14.6 billion each year
- Total annual economic activity for the three Air Force Bases is estimated at \$19.3 billion

## 9.5 Economic Impacts of Other Military Aviation

The Oklahoma Army Air Guard has aviation facilities that are not located at any of the study airports. Most people are familiar with the Guard for assistance they provide during natural disasters and times of civil unrest. If airports had military units, these were counted and previously included in the airport specific tenant impacts. The Guard has an Army Aviation Support Facility (AASF#1)/Muldrow Army Heliport in Lexington, Oklahoma. They also have an Army Aviation Support Facility (AASF#2) at 4242 N. Mingo Valley Expressway in Tulsa. They are a tenant at Will Rogers World Airport, subletting space from Atlantic Aviation. At Will Rogers, the Guard bases a C-12U Huron; activities for this unit were included in the airport’s tenant related impacts.

At its non-airport locations, the Army Air Guard operates the following aircraft:

- AASF#1 has six X UH-60L Black Hawk Helicopters; six X CH-47F Chinook Helicopters; and three RQ-7B Shadow UAS.
- AASF#2 has 10 X UH-60M Black Hawk Helicopters and four LUH-72 Lakota Helicopters.

AASF#1 has 49 full-time Dual Status Federal Technicians, the Armory has nine full-time Active Guard Reserve (AGR) employees, and seven state employees. AASF#2 has 42 full-time Dual Status Federal Technicians, the Armory has nine full-time AGR employees, and eight state employees.

The Lexington location has approximately 220 National Guard soldiers who work on average 40 hours per month. The Tulsa location has approximately 220 National Guard soldiers who work on average 40 hours per month. The Lexington full-time staff (Techs, AGR and State) have an annual payroll of approximately \$3.8 million, the soldiers have an annual payroll of approximately \$2.24 million, for a total of \$6.04 million combined. The Tulsa full-time staff has a payroll of \$3.4 million, the soldiers have an annual payroll of approximately \$2.24 million, for a total of \$5.64 million combined. For this analysis, all less than full-time positions were converted to full-time jobs.

The unit at Lexington spends approximately \$780,260 annually for jet fuel and \$2.2 million to purchase repair parts. The Tulsa unit spends approximately \$503,114 each year for jet fuel and \$1.5 million for repair parts.

Recent capital investment includes a renovation to the Lexington Armory; the cost for this renovation was \$3,026,709. A renovation to the Tulsa Armory was completed in 2015; the cost of this renovation was \$5,218,524. Other capital investment includes the installation of a concrete simulator pad (\$107,263) and a Hangar Fire Suppression System in Tulsa (\$524,282).

Based on this information and other supporting data provided directly by the Air Guard, their annual operational economic impacts (**Table 51**), their annual construction impacts (**Table 52**); and their total annual economic impacts (**Table 53**) were estimated.

TABLE 51 – ANNUAL OPERATIONAL IMPACTS OKLAHOMA ARMY AIR GUARD

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	241	\$12,054,000	\$5,199,449	\$17,253,449
Indirect	130	\$4,076,487	\$1,038,779	\$5,115,266
Induced	158	\$3,524,712	\$1,051,448	\$4,576,160
<b>Total</b>	<b>529</b>	<b>\$19,655,199</b>	<b>\$7,289,676</b>	<b>\$26,944,875</b>

Source: OAC Study Analysis

TABLE 52 – ANNUAL CONSTRUCTION IMPACTS OKLAHOMA ARMY AIR GUARD

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	13	\$948,190	\$2,958,926	\$3,907,116
Indirect	7	\$334,064	\$703,862	\$1,037,926
Induced	8	\$316,020	\$464,016	\$708,036
<b>Total</b>	<b>28</b>	<b>\$1,598,274</b>	<b>\$4,126,804</b>	<b>\$5,725,078</b>

Source: OAC Study Analysis

TABLE 53 – TOTAL ANNUAL ECONOMIC IMPACTS OKLAHOMA ARMY AIR GUARD

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	254	\$13,002,190	\$8,158,375	\$21,160,565
Indirect	137	\$4,410,551	\$1,742,641	\$6,153,192
Induced	166	\$3,840,732	\$1,315,464	\$5,115,266

TABLE 53 – TOTAL ANNUAL ECONOMIC IMPACTS OKLAHOMA ARMY AIR GUARD

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
<b>Total</b>	<b>557</b>	<b>\$21,253,473</b>	<b>\$11,216,480</b>	<b>\$32,469,953</b>

Source: OAC Study Analysis

As shown in **Table 53**, total annual economic impacts for the Oklahoma Army Air Guard’s off-airport activities and operations were estimated as follows:

- 557 jobs
- \$21 million in annual payroll
- \$11 million in annual spending
- \$32.5 million in total annual economic activity

## 9.6 Total Economic Impacts from Air National Guard Aviation in Oklahoma

The Oklahoma Air National Guard has two main bases across the state located in Oklahoma City at Will Rogers World Airport, and Tulsa at the Tulsa International Airport. They perform five unique missions training and preparing the citizen-airman to respond to the Governor of Oklahoma for state emergencies or the call of the President in times of crisis. Oklahoma Air National Guard on-airport economic impacts are identified in **Table 54**. These impacts are not included in the off-airport military impacts in order to avoid double counting.

TABLE 54 – TOTAL ANNUAL ECONOMIC IMPACTS OKLAHOMA AIR NATIONAL GUARD

	Employment	Payroll	Spending	Annual Economic Activity
<b>Oklahoma Air National Guard – Oklahoma City</b>				
Direct	770	\$21,210,000	\$3,800,000	\$25,010,000
Indirect	184	\$3,183,056	\$2,091,096	\$5,274,152
Induced	465	\$6,868,789	\$3,861,064	\$10,729,853
<b>Total</b>	<b>1,420</b>	<b>\$31,261,845</b>	<b>\$9,752,160</b>	<b>\$41,014,005</b>
<b>Oklahoma Air National Guard 138th Fighter Wing - Tulsa</b>				
Direct	944	\$55,000,000	\$11,500,000	\$66,500,000
Indirect	226	\$8,254,034	\$3,123,065	\$11,377,098
Induced	685	\$28,201,931	\$8,386,957	\$36,588,887
<b>Total</b>	<b>1,855</b>	<b>\$91,455,964</b>	<b>\$23,010,021</b>	<b>\$114,465,986</b>
<b>Combined Oklahoma Air National Guard</b>				
Direct	1,714	\$76,210,000	\$15,300,000	\$91,510,000
Indirect	410	\$11,437,089	\$5,214,161	\$16,651,250
Induced	1,150	\$35,070,720	\$12,248,021	\$47,318,740
<b>Total</b>	<b>3,275</b>	<b>\$122,717,809</b>	<b>\$32,762,182</b>	<b>\$155,479,990</b>

Source: OAC Study Analysis

## 9.7 Total Economic Impacts from Off-Airport Military Aviation in Oklahoma

As this section of the OAC report has demonstrated, military aviation has a significant annual economic impact in Oklahoma. In addition to the impacts estimated in this section, there are other impacts related to military suppliers and contractors which are measured in the next section of this report. In total, impacts from off-airport military aviation in Oklahoma have been estimated as follows:

- 72,648 jobs
- Almost \$4.7 billion in annual payroll
- \$14.6 billion in annual spending
- \$19.3 billion in total annual economic activity

## 10.0 ECONOMIC IMPACTS FROM OFF-AIRPORT AVIATION AND AEROSPACE COMPANIES

As mentioned, Oklahoma has, for many years, been a magnet for aviation and aerospace businesses. Many of these businesses are not located on an airport, but many of these companies are located in the airport environment. These off-airport businesses are often suppliers for on-airport businesses and for Oklahoma's major military installations. Also included in off-airport aviation related businesses are companies that serve the air cargo industry; these include freight forwarders, expeditors, and consolidators.

Research conducted by the Oklahoma Department of Commerce shows that there are, statewide, an estimated 837 aviation/aerospace businesses in Oklahoma. These companies are in addition to aviation related businesses (tenants) located at the 109 study airports; the impacts of aviation related tenants were reported earlier in this study. **Appendix A, Table 3 – Off-Airport Aviation-Related Businesses** provides a list showing the businesses whose economic impacts are reported in this section. The Oklahoma Department of Commerce conducted research to identify these employers and location in the state.

Research shows that off-airport aviation/aerospace companies in Oklahoma employ an estimated 28,200 people, and the average salary for each of these employees is \$62,400. Analysis shows that of these 837 aviation/aerospace companies, 307 are in the Oklahoma City Metropolitan Area (MSA). Aviation/aerospace companies in the Oklahoma City MSA employ approximately 9,200 people. These jobs have an annual salary of \$56,200. The Tulsa MSA has an estimated 286 aviation/aerospace companies; the average salary for the 10,100 people working at these companies is \$59,700. The remaining 244 aviation/aerospace companies are scattered at various locations elsewhere in Oklahoma.

Similar to the economic impacts for the 109 study airports and military aviation in Oklahoma, direct impacts for employment, payroll, spending, and economic activity were identified for all 837 off-airport aviation and aerospace businesses. The research to identify all direct impacts was conducted by the Oklahoma Department of Commerce. Once direct impacts for all businesses were identified for all 837 businesses, the direct impacts were entered into the IMPLAN model to estimate indirect/induced impacts for each direct impact category (employment, payroll, spending, and economic activity).

**Table 55 – Economic Impact Off-Airport Aviation/Aerospace Businesses, Tulsa MSA** shows the annual off-airport economic impacts from aviation/aerospace businesses in the Tulsa MSA. As shown, these businesses support 22,386 jobs that have a total annual payroll estimated at \$1.3 billion. Annually, purchases by these businesses for the goods, materials, and supplies that they need to operate is estimated at \$4.6 billion. Total

annual economic in the Tulsa MSA linked to off-airport aviation and aerospace businesses is estimated at \$5.9 billion.

**Table 56 – Economic Impact Off-Airport Aviation/Aerospace Businesses, Oklahoma City MSA** presents similar impacts for off-airport aviation and aerospace businesses in the Oklahoma City MSA. Research and economic modeling for the off-airport aviation/aerospace businesses in the Oklahoma City MSA shows that the 307 businesses support a total of 13,168 jobs that have an annual payroll estimated at \$772.7 million. These businesses support annual spending estimated at \$1.4 billion. Total economic activity for off-airport aviation/aerospace businesses in the Oklahoma City MSA is estimated at \$2.1 billion.

**Table 57 – Total Statewide Economic Impact Off-Airport Aviation/Aerospace Businesses** shows total statewide impacts (excluding off-airport air cargo) for off-airport aviation/aerospace companies in Oklahoma. As this table shows, statewide, all off-airport aviation/aerospace businesses support the following total annual economic impacts:

- 57,253 jobs
- \$3.3 billion in annual payroll
- \$10.3 billion in annual spending
- \$13.6 billion in annual economic activity

**Table 58 – Statewide Off-Airport Air Cargo Impacts** provides an estimate of the statewide economic impact related to off-airport air cargo related businesses. As **Table 58** shows, additional statewide impacts from off-airport businesses, that support the air cargo industry, include 1,705 jobs that have an annual payroll estimated at \$85.6 million. Spending from these air cargo companies is estimated at \$174.5 million. Total annual economic impact for these businesses is estimated at an additional \$260 million.

When all off-airport aviation/aerospace economic impacts are considered, the following impacts were identified:

- 58,958 jobs
- \$3.4 billion in annual payroll
- \$10.5 billion in annual spending
- \$13.9 billion in annual economic activity

TABLE 55 – ECONOMIC IMPACT OFF-AIRPORT AVIATION/AEROSPACE BUSINESSES, TULSA MSA

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	10,110	\$603,895,947	\$3,279,756,947	\$3,883,652,894
Indirect	6,828	\$380,922,545	\$841,114,577	\$1,222,037,122
Induced	5,448	\$228,931,578	\$537,460,872	\$766,392,450
<b>Total</b>	<b>22,386</b>	<b>\$1,250,593,409</b>	<b>\$4,621,489,057</b>	<b>\$5,872,082,466</b>

Source: Oklahoma Department of Commerce

TABLE 56 – ECONOMIC IMPACT OFF-AIRPORT AVIATION/AEROSPACE BUSINESSES, OKLAHOMA CITY MSA

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	6,930	\$389,529,090	\$853,053,847	\$1,242,582,937

TABLE 56 – ECONOMIC IMPACT OFF-AIRPORT AVIATION/AEROSPACE BUSINESSES, OKLAHOMA CITY MSA

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Indirect	3,092	\$157,622,260	\$297,402,022	\$455,024,282
Induced	3,146	\$127,255,243	\$315,252,101	\$442,507,344
<b>Total</b>	<b>13,168</b>	<b>\$722,675,923</b>	<b>\$1,417,438,640</b>	<b>\$2,140,114,563</b>

Source: Oklahoma Department of Commerce

TABLE 57 – TOTAL STATEWIDE ECONOMIC IMPACT OFF-AIRPORT AVIATION/AEROSPACE BUSINESSES

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	25,819	\$1,610,754,759	\$7,047,372,630	\$8,658,127,389
Indirect	17,151	\$937,056,282	\$1,975,137,037	\$2,912,193,319
Induced	14,283	\$592,409,751	\$1,416,769,008	\$2,009,178,759
<b>Total</b>	<b>57,253</b>	<b>\$3,279,315,151</b>	<b>\$10,300,184,316</b>	<b>\$13,579,499,467</b>

Source: Oklahoma Department of Commerce

TABLE 58 – STATEWIDE OFF-AIRPORT AIR CARGO IMPACTS

Impact Type	Employment	Payroll	Spending	Annual Economic Activity
Direct	835	\$39,182,293	\$96,258,379	\$135,440,672
Indirect	497	\$26,812,975	\$45,381,687	\$72,194,662
Induced	373	\$15,344,883	\$37,083,816	\$52,428,699
<b>Total</b>	<b>1,705</b>	<b>\$85,593,285</b>	<b>\$174,470,748</b>	<b>\$260,064,033</b>

Source: Oklahoma Department of Commerce

## 11.0 SUMMARY OF ECONOMIC IMPACTS FROM AVIATION AND AEROSPACE IN OKLAHOMA

The preceding sections provide information that shows the economic impact of aviation and aerospace activities in Oklahoma. **Table 59 – All Statewide Economic Impacts from Airports, Military Aviation, and Off-Airport Aviation/Aerospace Businesses and Air Cargo Impacts in Oklahoma** summarizes primary annual economic impacts identified in this OAC study.

TABLE 59 – ALL STATEWIDE ECONOMIC IMPACTS FROM AIRPORTS, MILITARY AVIATION, AND OFF-AIRPORT AVIATION/AEROSPACE BUSINESSES AND AIR CARGO IMPACTS IN OKLAHOMA

	Total Jobs	Total Payroll	Total Spending	Total Annual Economic Activity
109 Study Airports	74,002	\$3.6 billion	\$7.0 billion	\$10.6 billion
Military Aviation	72,648	\$4.7 billion	\$14.6 billion	\$19.3 billion
Off-Airport Aviation/Aerospace Businesses and Off-Airport Air Cargo Impacts	58,958	\$3.4 billion	\$10.5 billion	\$13.9 billion

TABLE 59 – ALL STATEWIDE ECONOMIC IMPACTS FROM AIRPORTS, MILITARY AVIATION, AND OFF-AIRPORT AVIATION/AEROSPACE BUSINESSES AND AIR CARGO IMPACTS IN OKLAHOMA

	Total Jobs	Total Payroll	Total Spending	Total Annual Economic Activity
<b>Total</b>	<b>205,608</b>	<b>\$11.7 billion</b>	<b>\$32.1 billion</b>	<b>\$43.8 billion</b>

Source: OAC Study Analysis

In addition to these impacts, hundreds of businesses in Oklahoma rely on various facets of aviation to improve their efficiency. Companies have staff that travel on commercial carriers or general aviation planes. Oklahoma companies expand their market areas because customers and suppliers can fly to Oklahoma to do business with them. Oklahoma employers routinely rely on just-in-time and traditional air cargo shipping for parts and supplies to fuel supply chain management. This study estimates that there are an additional 34,787 jobs in Oklahoma that have improved efficiency from their reliance on aviation.

Total non-farm employment in Oklahoma is estimated by the Bureau of Labor Statistics at 1,652,000. Research and analysis completed in this study shows that when all direct and indirect/induced aviation and aerospace related employment in the following categories: study airports, military aviation, off-airport aviation/aerospace employers, and jobs supported by aviation is considered, these jobs account for 14.5% of total statewide non-farm employment. Combined all facets of aviation and aerospace measured in this study are responsible for an estimated \$44 billion in statewide total annual economic activity.

## 12.0 APPENDIX A

APPENDIX A, TABLE 1 – LOCAL AND VISITING BUSINESS USERS

FAA ID	Airport Name	Associated City	Local and Visiting Business Users
ADH	Ada Municipal Airport	Ada	Legal Shield, Love's Travel Stops and Country Stores, Gemini Motor Transport, Musket, Trillium CNG
AXS	Altus/Quartz Mountain Regional Airport	Altus	Wal-Mart, Atwoods Ranch and Home, Hastings, Pizza Hut, Stripes Convenience Stores, Bar-S Foods, Enterprise Square Apartments, Scrub House, Horton & Associates Law Firm, Eco-Drip Irrigation Systems Inc., and Gavilon Grain, LLC.
AVK	Alva Regional Airport	Alva	Devine Water, Central National Bank, Value Added Products, Midwest Feeders, Sandridge Energy
1F0	Ardmore Downtown Executive	Ardmore	Valero Ardmore Refinery, Samuel Roberts Noble Foundation, Michelin North America, Dollar General, Dot Foods, IMTECH
ADM	Ardmore Municipal	Ardmore	Dollar General, OnLine Packing, Inc, Michelin Tire, Carboxyx
BVO	Bartlesville Municipal Airport	Bartlesville	ConocoPhillips, Lock N' Climb Ladders, Wal-Mart, Dillard's, Atwoods Ranch and Home, and Dollar General
17K	Boise City Airport	Boise City	Abiler Construction
3F7	Jones Memorial Airport	Bristow	Phillips Pipeline Patrol, Riverside British Petroleum
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	Weyerhaeuser Company
CQB	Chandler Regional Airport	Chandler	LaGere Walkingstick Insurance
CHK	Chickasha Municipal Airport	Chickasha	Nicola Bank, Waste Management, Vaultless Casket Company, Atwoods Ranch and Home, Wal-Mart, Jack's Beef Jerky
GCM	Claremore Regional Airport	Claremore	Baker Hughes, Fox-I, AXH, Aerial Coalition Technologies
CLK	Clinton Regional Airport	Clinton	Steakmacher, Clinton Hampton, Francis Drilling Fluids, Britain & Associates, Marmic, OK Jailbirds, John Zelbst (Lawyer)
CSM	Clinton-Sherman Airport	Clinton	Devon Energy Corp, Boeing, Cessna, Honda Jet
CUH	Cushing Municipal Airport	Cushing	Fechner Pump & Supply, Magellan Midstream Partners, Enbridge Energy Partners, and JP Energy, Imbridge Company, Plane Company, and Submersible Pumps, Inc.
DUC	Halliburton Field Airport	Duncan	Family Dollar, Carroll Surveying, the National Rural Water Association, Mc Ashland Energy, and Mack Energy
DUA	Durant Regional Airport - Eaker Field	Durant	Cardinal Glass, Love's Travel Stops and Country Stores, Big Lots, Big Tax Trailers, Choctaw Casino
RQO	El Reno Regional Airport	El Reno	Halliburton
ELK	Elk City Regional Business Airport	Elk City	Circle A Western and Outdoor, Barber-Dyson Ford Lincoln, Doug Gray Car Dealer, Gardner's Gas, Ross Buildings, Wal-Mart, and Dakota Anesthesia
WDG	Enid Woodring Regional Airport	Enid	Groendyke Transport, Atwoods Ranch and Home, Envirotech Engineering, Dillingham Insurance, P&K Equipment, Johnston Grain, Rite-Way Construction, D&J Oil Company, and Cummins Construction Co
6K4	Fairview Municipal Airport	Fairview	Mountain Country Foods
GMJ	Grove Regional Airport	Grove	Pride Plating Plastics, Ferra Aerospace, Arrowhead Yacht Club, Precision Communication Inc., Malone Manufacturing, Cerner Corporation, Sooner Container, and Simmons Foods



APPENDIX A, TABLE 1 – LOCAL AND VISITING BUSINESS USERS

FAA ID	Airport Name	Associated City	Local and Visiting Business Users
GOK	Guthrie-Edmond Regional Airport	Guthrie	John Vance Auto Group, CEC Infrastructure Solutions, Baron Exploration, Cheyenne Petroleum Company, Chesapeake Energy, Special Exploration Corporation, Guardian Aerial Patrol
GUY	Guymon Municipal Airport	Guymon	Seaboard Foods, PTCL, Bank of Panhandle, City National Bank, Prestige Farms, Oak & Associates, County View Mobile Homes, Love's Travel Stops and Country Stores, The Kent Companies, Hitch Enterprises, Quality Integrated Services
208	Hinton Municipal Airport	Hinton	Wheeler Chevrolet, Dougherty Forestry, Tillman Auction, and Love's Travel Stops and Country Stores
HBR	Hobart Regional Airport	Hobart	Sesaco, Centurion Pipelines, and SKF
HHW	Stan Stamper Municipal Airport	Hugo	Choctaw Nation, Martinaire Aviation, Trinity Industries, Cousins Electronics, and United Parcel Service (UPS)
404	McCurtain County Regional Airport	Idabel	Tyson Foods
1K8	South Grand Lake Regional Airport	Ketchum	Arrowhead Yacht Club, Grand River Dam Authority
F92	Kingfisher Airport	Kingfisher	Drilling Fluid Technologies
LAW	Lawton-Fort Sill Regional Airport	Lawton	EZ GO, Dillard's, Goodyear, Republic Paper, Bar-S Foods, Halliburton
1F4	Madill Municipal Airport	Madill	Oklahoma Steel and Wire and Big Tex Trailers
MLC	McAlester Regional Airport	McAlester	Halliburton, BP, Marine Development, Choctaw Nation, Simonton Windows, James Hodge, Franklin Electric, and Komar & Sons
O53	Medford Municipal Airport	Medford	OneOK
MIO	Miami Regional Airport	Miami	Newell Coaches, Hopkins Manufacturing, Vance Auto Group
MKO	Muskogee Davis Regional Airport	Muskogee	Georgia Pacific, Dillard's, T.J. Maxx, Dollar General, Love's Travel Stops and Country Stores, and ESI Aviation
OUN	University of Oklahoma Westheimer Airport	Norman	Arvine Pipe and Supply, Bob Moore Auto Group, RTO Investments, Dillard's, Premier Communications, Lowe's, and Noble Drilling Services
PWA	Wiley Post Airport	Oklahoma City	WR Hess Company, Jim Clark & Associates, H&H Cattle Company, and Carl Gungoll Exploration, Wells Fargo, Costco, Cabela's, and Sprint
RCE	Clarence E Page Municipal Airport	Oklahoma City	J-W Power Company
OKM	Okmulgee Regional Airport	Okmulgee	Muskogee Creek Nation, Anchor Glass, McCoy's, and Wal-Mart
PVJ	Pauls Valley Municipal Airport	Pauls Valley	Wal-Mart, Love's Travel Stops and Country Stores, Kerrwood, Wynnewood Refinery, Reavis Drug and Seth Wadley Ford
F22	Perry Municipal Airport	Perry	Charles Machine Works (Ditch Witch) and Anheuser-Busch
PNC	Ponca City Regional Airport	Ponca City	Phillips66, Albertson's Grocery
RKR	Robert S Kerr Airport	Poteau	Kelworth Trucking, Younger Aviation, Southern Star, Thompson & Thompson, Mitchell Rentals, Fat Albert's Motorsports, Solid Rock Stone, and Ron's Lumber
O47	Prague Municipal Airport	Prague	Morgan Oil Field Services
JSV	Sallisaw Municipal Airport	Sallisaw	Casey's General Store, Aviagen, Blue Skies Aircraft, Ft. Smith Aviation, Ely Ag Services, Agratech Inc. Aerial Services Inc., and Legal Eagle Aviation

APPENDIX A, TABLE 1 – LOCAL AND VISITING BUSINESS USERS

FAA ID	Airport Name	Associated City	Local and Visiting Business Users
OWP	William R. Pogue Municipal Airport	Sand Springs	Brentco Pipeline Patrol, Eagle Sky Patrol, Ugly John's Custom Boats, CCR Construction, RW Bright Architects, Inc., Spess Oil Company, Yellow House Machinery Co., Stage, Comtech, Woolslayer
304	Sayre Municipal Airport	Sayre	Napa Auto Supply, Mike Blevins Lawyer, and DJ Equipment Rental
SRE	Seminole Municipal Airport	Seminole	Wrangler, Sigma Meat Processing Company, Wal-Mart, Cudd Oil Company, and Coates Roofing
SNL	Shawnee Regional Airport	Shawnee	ExxonMobil, Round House, Eaton Corporation, United Dynamics, Atwoods Ranch and Home, Dillard's, Citizen Pottawatomie Nation, Wolverine Tube Incorporated, and JC Penney
SWO	Stillwater Regional Airport	Stillwater	Special Energy Corporation (SEC), SST Software, Armstrong World Industries, Total Energy, Devon Energy, and Pottawatomie Nation
SUD	Stroud Municipal Airport	Stroud	Universal Turbine Parts, Carey Johnson Oil Co (EZ GO Stores), HD Outdoor Advertising, and Midco Inc.
TQH	Tahlequah Municipal Airport	Tahlequah	Cherokee Nation
6F1	Talihina Municipal Airport	Talihina	Dollar General
RVS	Richard Lloyd Jones Jr Airport	Tulsa	Laredo Petroleum, Unit Corp, and Ventana Exploration & Production, Sooner Container Inc, Leeds Stained Glass, Green Bay Packaging
305	Walters Municipal Airport	Walters	High's Auction and Real Estate
OJA	Thomas P Stafford Airport	Weatherford	John Deere Western Equipment, Eco-tech Environmental Services, Dougherty Forestry Manufacturing, Caswell Construction, Red Rock Oil Field Services, Love's Travel Stops and Country Stores
WWR	West Woodward Airport	Woodward	United Parcel Service (UPS)

Source: Study Airports

APPENDIX A, TABLE 2 – UAS/UAV COMPANIES IN OKLAHOMA

UAS Companies	City
918 NETWORKS LLC	Moore
Above It All Aerial Solutions LLC	Broken Arrow
AECOM	Oklahoma City
Aerial Concepts LLC	Tulsa
Aerial Oklahoma, Inc.	Oklahoma City
Aero Image LLC	Tulsa
Aerostar International, Inc.	Chelsea
Aerotek	Oklahoma City
AKFlyin Aerial Photography LLC	Newalla
American Drones, LLC	Oklahoma City
American Safety Training and Resources Inc	Oklahoma City
Formerly ARINC nor ASES (DBA Field Aerospace)	Oklahoma City
Arrival 3D	Coweta

APPENDIX A, TABLE 2 – UAS/UAV COMPANIES IN OKLAHOMA

UAS Companies	City
Auxiliary Drones LLC	Lawton
Billy M Davison	Newalla
Boeing	Oklahoma City
C2 Technologies	Oklahoma City
CameraView Photography and Video LLC	Arcadia
Chance MacNeill	Yukon
Cherokee Nation Technologies	Tulsa
Cloud Deck Media	Oklahoma City
Cloud Nine Technologies LLC	Cleveland
Daedalus Imaging LLC	Broken Arrow
David J Tester	Oklahoma City
Design Intelligence Incorporated, LLC	Norman
Dobbs Administrations	Oklahoma City
Drone 1 Aerial LLC	Marlow
Drone Viu, LLC	Tulsa
DRONEBOIS	Oklahoma City
Ducommun LaBarge Technologies	Tulsa
Dustin Gwin Photography	Oklahoma City
Eagle Vision Drones LLC	Choctaw
Electro Enterprises	Oklahoma City
Embry-Riddle Aeronautical University	Oklahoma City
Epic Aerial	Edmond
Flight Safety - Simulation Systems Division	Broken Arrow
FLIR Systems (Formerly ICX)	Stillwater
Float Avionics	Tulsa
Frontier Electronic Systems Corp	Stillwater
Ft. Sill - FIRES Battle Lab	Fort Sill
Gabriel Graveline	Owasso
General Atomics	Oklahoma City
General Dynamics	Oklahoma City
Gregory Steen	Lawton
Griffin Communications	Oklahoma City
Hover Visions	Tulsa

APPENDIX A, TABLE 2 – UAS/UAV COMPANIES IN OKLAHOMA

UAS Companies	City
HSEarchitects	Oklahoma City
Hummingbird Aerials and Motion	McAlester
Jeffrey L. Taliaferro Photography	Wayne
John Looper	Broken Arrow
John Marc Edwards	Collinsville
King Aerospace Commercial Corp	Ardmore
Kirkpatrick Forest Curtis PC	Oklahoma City
Lee E Easton	Owasso
Lloyd Entertainment Media Group Inc	Edmond
Lonnie Douglas Crego	Norman
McAlester Army Ammunition Plant	McAlester
Michael Jay Watson	Oklahoma City
Michael Stephenson Entertainment	Broken Arrow
Mr. Michael Rennels	Oklahoma City
Mr. Nicholas M. Brown	Piedmont
Mr. Stephen J. Tyler	Oklahoma City
NextGen Aerial Photography	Oklahoma City
Nicholas M Brown	Piedmont
Objectstream	Oklahoma City
Oklahoma Aviation, LLC	Bethany
Oklahoma State University	Stillwater
Open Houses of Oklahoma LLC	Norman
Osage Nation of Oklahoma	Pawhuska
Pinpoint Predictive Maintenance Service LLC	Edmond
Pixelhawk Aerial Cinematography LLC	Tulsa
PlaneTechs	Oklahoma City
Plexsys Interface Products	Oklahoma City
Press Pause Films LLC	Tulsa
Price Edwards and Company	Oklahoma City
Pro Presenters LLC	Norman
Professional Aerial Services LLC	Tulsa
Red Fork Solutions	Kingfisher
Richard Anthony Alvarado	Edmond

APPENDIX A, TABLE 2 – UAS/UAV COMPANIES IN OKLAHOMA

UAS Companies	City
Richard L Fox	Tulsa
Ronnie Harrison	Oklahoma City
RPX Technologies, Inc.	Stillwater
Ryan Wells dba OK Real Estate Photography	Oklahoma City
SAIC Inc.	Midwest City
Saltuarius RPA LLC	Tulsa
Shawn Wilson dba circa77 Photography	Broken Arrow
Spartan School of Aeronautics & Tech	Tulsa
Supero UAS	Edmond
Surface Mount Depot	Oklahoma City
Tactical Electronics	Broken Arrow
TDRS LLC	Lawton
Terry Lasater	Edmond
Texoma Drone and Rescue	Ardmore
The Samuel Roberts Nobel Foundation	Ardmore
TKNYE LLC	Shawnee
Tom Kilpatrick	Nichols Hill
Top Flight Cinematography	Oklahoma City
Tower Inspection, Inc.	Muskogee
UAV Aerial Surveys	Ardmore
Unitech Aerospace (Formerly AGC Composites & Aerostructures Group)	Oklahoma City
University Multispectral Laboratories	Ponca City
Unmanned Cowboys	Stillwater
Vigilant Aerospace Systems Inc.	Oklahoma City
VT Group	Fort Sill
Wallace Mountain Designs, LLC dba REFlyBy	Crescent
William Arthur Wilson Jr	Edmond
William J Puckett	Edmond
Wolf Energy Systems LLC dba UAV Logistix	Edmond
Zivco	Guthrie

Source: Oklahoma Department of Commerce

APPENDIX A, TABLE 3 – OFF-AIRPORT AVIATION-RELATED BUSINESSES

FAA ID	Airport Name	Associated City	Local and Visiting Business Users
ADH	Ada Municipal Airport	Ada	Legal Shield, Love's Travel Stops and Country Stores, Gemini Motor Transport, Musket, Trillium CNG
AXS	Altus/Quartz Mountain Regional Airport	Altus	Wal-Mart, Atwoods Ranch and Home, Hastings, Pizza Hut, Stripes Convenience Stores, Bar-S Foods, Enterprise Square Apartments, Scrub House, Horton & Associates Law Firm, Eco-Drip Irrigation Systems Inc., and Gavilon Grain, LLC.
AVK	Alva Regional Airport	Alva	Devine Water, Central National Bank, Value Added Products, Midwest Feeders, Sandridge Energy
1F0	Ardmore Downtown Executive	Ardmore	Valero Ardmore Refinery, Samuel Roberts Noble Foundation, Michelin North America, Dollar General, Dot Foods, IMTECH
ADM	Ardmore Municipal	Ardmore	Dollar General, OnLine Packing, Inc, Michelin Tire, Carbonyx
BVO	Bartlesville Municipal Airport	Bartlesville	ConocoPhillips, Lock N' Climb Ladders, Wal-Mart, Dillard's, Atwoods Ranch and Home, and Dollar General
17K	Boise City Airport	Boise City	Abiler Construction
3F7	Jones Memorial Airport	Bristow	Phillips Pipeline Patrol, Riverside British Petroleum
90F	Broken Bow Airport (Jewel B. Callaham Municipal Airport)	Broken Bow	Weyerhaeuser Company
CQB	Chandler Regional Airport	Chandler	LaGere Walkingstick Insurance
CHK	Chickasha Municipal Airport	Chickasha	Nicola Bank, Waste Management, Vaultless Casket Company, Atwoods Ranch and Home, Wal-Mart, Jack's Beef Jerky
GCM	Claremore Regional Airport	Claremore	Baker Hughes, Fox-I, AXH, Aerial Coalition Technologies
CLK	Clinton Regional Airport	Clinton	Steakmacher, Clinton Hampton, Francis Drilling Fluids, Britain & Associates, Marmic, OK Jailbirds, John Zelbst (Lawyer)
CSM	Clinton-Sherman Airport	Clinton	Devon Energy Corp, Boeing, Cessna, Honda Jet
CUH	Cushing Municipal Airport	Cushing	Fechner Pump & Supply, Magellan Midstream Partners, Enbridge Energy Partners, and JP Energy, Imbridge Company, Plane Company, and Submersible Pumps, Inc.
DUC	Halliburton Field Airport	Duncan	Family Dollar, Carroll Surveying, the National Rural Water Association, Mc Ashland Energy, and Mack Energy
DUA	Durant Regional Airport - Eaker Field	Durant	Cardinal Glass, Love's Travel Stops and Country Stores, Big Lots, Big Tax Trailers, Choctaw Casino
RQO	El Reno Regional Airport	El Reno	Halliburton
ELK	Elk City Regional Business Airport	Elk City	Circle A Western and Outdoor, Barber-Dyson Ford Lincoln, Doug Gray Car Dealer, Gardner's Gas, Ross Buildings, Wal-Mart, and Dakota Anesthesia
WDG	Enid Woodring Regional Airport	Enid	Groendyke Transport, Atwoods Ranch and Home, Envirotech Engineering, Dillingham Insurance, P&K Equipment, Johnston Grain, Rite-Way Construction, D&J Oil Company, and Cummins Construction Co
6K4	Fairview Municipal Airport	Fairview	Mountain Country Foods
GMJ	Grove Regional Airport	Grove	Pride Plating Plastics, Ferra Aerospace, Arrowhead Yacht Club, Precision Communication Inc., Malone Manufacturing, Cerner Corporation, Sooner Container, and Simmons Foods
GOK	Guthrie-Edmond Regional Airport	Guthrie	John Vance Auto Group, CEC Infrastructure Solutions, Baron Exploration, Cheyenne Petroleum Company, Chesapeake Energy, Special Exploration Corporation, Guardian Aerial Patrol

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GUY	Guymon Municipal Airport	Guymon	Seaboard Foods, PTCI, Bank of Panhandle, City National Bank, Prestige Farms, Oak & Associates, County View Mobile Homes, Love's Travel Stops and Country Stores, The Kent Companies, Hitch Enterprises, Quality Integrated Services
208	Hinton Municipal Airport	Hinton	Wheeler Chevrolet, Dougherty Forestry, Tillman Auction, and Love's Travel Stops and Country Stores
HBR	Hobart Regional Airport	Hobart	Sesaco, Centurion Pipelines, and SKF
HHW	Stan Stamper Municipal Airport	Hugo	Choctaw Nation, Martinaire Aviation, Trinity Industries, Cousins Electronics, and United Parcel Service (UPS)
404	McCurtain County Regional Airport	Idabel	Tyson Foods
1K8	South Grand Lake Regional Airport	Ketchum	Arrowhead Yacht Club, Grand River Dam Authority
F92	Kingfisher Airport	Kingfisher	Drilling Fluid Technologies
LAW	Lawton-Fort Sill Regional Airport	Lawton	EZ GO, Dillard's, Goodyear, Republic Paper, Bar-S Foods, Halliburton
1F4	Madill Municipal Airport	Madill	Oklahoma Steel and Wire and Big Tex Trailers
MLC	McAlester Regional Airport	McAlester	Halliburton, BP, Marine Development, Choctaw Nation, Simonton Windows, James Hodge, Franklin Electric, and Komar & Sons
O53	Medford Municipal Airport	Medford	OneOK
MIO	Miami Regional Airport	Miami	Newell Coaches, Hopkins Manufacturing, Vance Auto Group
MKO	Muskogee Davis Regional Airport	Muskogee	Georgia Pacific, Dillard's, T.J. Maxx, Dollar General, Love's Travel Stops and Country Stores, and ESI Aviation
OUN	University of Oklahoma Westheimer Airport	Norman	Arvine Pipe and Supply, Bob Moore Auto Group, RTO Investments, Dillard's, Premier Communications, Lowe's, and Noble Drilling Services
PWA	Wiley Post Airport	Oklahoma City	WR Hess Company, Jim Clark & Associates, H&H Cattle Company, and Carl Gungoll Exploration, Wells Fargo, Costco, Cabela's, and Sprint
RCE	Clarence E Page Municipal Airport	Oklahoma City	J-W Power Company
OKM	Okmulgee Regional Airport	Okmulgee	Muskogee Creek Nation, Anchor Glass, McCoy's, and Wal-Mart
PVJ	Pauls Valley Municipal Airport	Pauls Valley	Wal-Mart, Love's Travel Stops and Country Stores, Kerrwood, Wynnewood Refinery, Reavis Drug and Seth Wadley Ford
F22	Perry Municipal Airport	Perry	Charles Machine Works (Ditch Witch) and Anheuser-Busch
PNC	Ponca City Regional Airport	Ponca City	Phillips66, Albertson's Grocery
RKR	Robert S Kerr Airport	Poteau	Kelworth Trucking, Younger Aviation, Southern Star, Thompson & Thompson, Mitchell Rentals, Fat Albert's Motorsports, Solid Rock Stone, and Ron's Lumber
O47	Prague Municipal Airport	Prague	Morgan Oil Field Services
JSV	Sallisaw Municipal Airport	Sallisaw	Casey's General Store, Aviagen, Blue Skies Aircraft, Ft. Smith Aviation, Ely Ag Services, Agratech Inc. Aerial Services Inc., and Legal Eagle Aviation
OWP	William R. Pogue Municipal Airport	Sand Springs	Brentco Pipeline Patrol, Eagle Sky Patrol, Ugly John's Custom Boats, CCR Construction, RW Bright Architects, Inc., Spess Oil Company, Yellow House Machinery Co., Stage, Comtech, Woolslayer
304	Sayre Municipal Airport	Sayre	Napa Auto Supply, Mike Blevins Lawyer, and DJ Equipment Rental

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FAA ID	Airport Name	Associated City	Local and Visiting Business Users
SRE	Seminole Municipal Airport	Seminole	Wrangler, Sigma Meat Processing Company, Wal-Mart, Cudd Oil Company, and Coates Roofing
SNL	Shawnee Regional Airport	Shawnee	ExxonMobil, Round House, Eaton Corporation, United Dynamics, Atwoods Ranch and Home, Dillard's, Citizen Pottawatomie Nation, Wolverine Tube Incorporated, and JC Penney
SWO	Stillwater Regional Airport	Stillwater	Special Energy Corporation (SEC), SST Software, Armstrong World Industries, Total Energy, Devon Energy, and Pottawatomie Nation
SUD	Stroud Municipal Airport	Stroud	Universal Turbine Parts, Carey Johnson Oil Co (EZ GO Stores), HD Outdoor Advertising, and Midco Inc.
TQH	Tahlequah Municipal Airport	Tahlequah	Cherokee Nation
6F1	Talihina Municipal Airport	Talihina	Dollar General
RVS	Richard Lloyd Jones Jr Airport	Tulsa	Laredo Petroleum, Unit Corp, and Ventana Exploration & Production, Sooner Container Inc, Leeds Stained Glass, Green Bay Packaging
3O5	Walters Municipal Airport	Walters	High's Auction and Real Estate
OJA	Thomas P Stafford Airport	Weatherford	John Deere Western Equipment, Eco-tech Environmental Services, Dougherty Forestry Manufacturing, Caswell Construction, Red Rock Oil Field Services, Love's Travel Stops and Country Stores
WWR	West Woodward Airport	Woodward	United Parcel Service (UPS)

Source: Study Airports