

# The Small Airport Economic Impact Estimator Tool

0-7066-P2

**Developed by the Texas A&M Transportation Institute**

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For

Texas Department of Transportation

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The Small Airport Economic Impact Estimator Tool (referred to as the Estimator) is designed to provide airport managers, planners, local officials, and the public with a tool to determine the economic impact of individual airports on their region in Texas. The user can alter current inputs or use default numbers to calculate the impact of airport, visitor, and tenant activity as well as the economic importance of capital expenses. The results are a summary of the total economic impact derived from the various types of activity that can occur at the airport.

This document guides the user through the Estimator and its basic calculations by describing each activity type and the results provided.

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## Background and Purpose

The Small Airport Economic Impact Estimator Tool was created to help an airport sponsor and any other interested users to determine an airport's total economic impact. Knowing the economic impact of an airport is important for justifying the authorization of grant-matching funds. However, some airports do not have the necessary resources to conduct their own analysis. That is why researchers at the Texas A&M Transportation Institute developed an estimator tool that allows airport sponsors to enter airport-specific data or use default numbers to calculate their airport's economic impact.

The calculator uses an input/output (I/O) model to determine the economic impact of activity on the airport. (The next section provides more information on I/O models.) A web-based tool has the advantage of supplying airport sponsors with quick, up-to-date numbers and a prediction of how capital improvements will impact airport activity. Data to produce these estimates are obtained from several sources. Defaults and outputs are calculated from data such as airport arrivals, annual visitors, visitor spending, estimated payroll, capital expenses, and economic multipliers.

This user's guide serves as a reference for how to maneuver around the tool and understand its results. Step-by-step instructions and figures are included to give the user a better understanding of how this tool is set up. The tool is divided into four sections that include airport selection and three types of activities:

- Airport sponsored
- Visitor
- Tenant/business

The overall process to use the tool is as follows:

1. The user selects the airport of interest; selecting an airport narrows down the region and sets parameters for how the data will be used.
2. The activity section prompts the user to either enter information regarding employment, payroll, expenses, and other types of activities or accept the default inputs. Output cells will update automatically if defaults are overridden.
3. A summary box and pie chart highlight key employment, labor income, and output results for the different types of activities.

## Input/Output Model

I/O models are generally accepted as the best model when considering airport systems and, especially, small airports. I/O models work by estimating the impact to the region of economic activity through the inclusion of expenditures and other inputs to provide the generated economic output for the region.

### Measures of Economic Impact

I/O models provide three measures of economic impact through the use of data inputs from airports on their activity levels:

- Employment
- Payroll expenditures

- Output

*Employment* includes both full- and part-time jobs, with part-time jobs being calculated to create a full-time equivalent number of positions.

*Payroll expenditures* are the expenses related to salary, wage, and benefits earned by all employees and business owners at the airport.

*Output* refers to goods and services that are generated by the airport on an annual basis. This is expressed by a dollar amount and is estimated using annual sales, or annual operating costs, which assumes that the output is approximately equivalent to what the airport or its tenants expend.

## Orders of Operations in the Calculator

I/O models can calculate without full information and still provide estimates of economic impact; despite this, these models do prefer certain inputs to determine the most accurate representation of the impact to the economy. The preferred input for an I/O model is the annual operating expenses or output number; the calculator uses annual operating expenses for airport activity and tenant activity if they are available. If the annual operating expenses are not available, the model will then apply the employment input, or the total number of jobs for the airport or tenant. Finally, if only payroll data are known, the model will calculate based on that information.

## Accessing the Calculator

The Small Airport Economic Impact Estimator Tool is available at [txeconomicapproach.org](http://txeconomicapproach.org). When first accessing the website and estimator, an information screen will pop up that includes contact information and access to this guide. Click “Close” to continue on to the calculator.

**Small Airport Economic Impact Estimator**

User's Guide Print

Select Airport: Abilene Regional Airport

County: Taylor, Region: West Texas

Map: Abilene

Item	Jobs	Labor Income	Output
Airport Activity	11	\$890,065	\$3,454,482
Airport Capital Improvements	8	\$376,988	\$1,099,447
GA Visitor Activity	129	\$2,575,446	\$7,206,696
			\$25,947,131
			\$145,635,606
			\$183,343,363

**Small Airport Economic Impact Estimator**

This Small Airport Economic Impact Estimator is intended to provide small airports (general aviation airports and non-hub commercial service airports) with estimates of their economic impact including employment, income, and total output. It includes economic impacts associated with airport sponsor, airport tenant, and airport visitor activity.

This model was designed to provide economic impact estimates for:

- Small airports not included in the statewide study (or where incomplete information was used);
- Airports who had privacy concerns where disclosing financial/economic data may make proprietary business information identifiable;
- Airports whose activity levels since the last statewide study was performed have changed;
- Airports wishing to have a more detailed analysis performed than what was allowed during a system-level analysis; and
- Airports who would like to do some scenario planning to see how their economic impacts would change based on changes in the airport's activity.

This project was sponsored by TxDOT's Research and Technology Implementation Division. The model was developed by Texas A&M Transportation Institute, Infrastructure Investment Analysis Program.

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Close

Once the information screen is closed, the following screen will display. The user's guide is also available at the top of the screen.

## Small Airport Economic Impact Estimator

[User's Guide](#) [Print](#)



**Select Airport**

Abilene Regional Airport


**County** Taylor

**Region** West Texas

**Select Input/Output**

**Airport** Visitor Tenant

**Map**



**Summary**

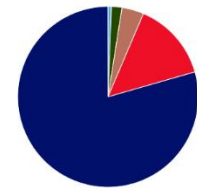
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CS Visitor Activity	466	\$9,272,686	\$25,947,131
Tenant Activity	1,002	\$45,488,469	\$145,635,606
<b>Total</b>	<b>1,616</b>	<b>\$58,603,655</b>	<b>\$183,343,363</b>

**Airport Activity**

*The estimator will only use one of the first three inputs to calculate the economic impact. Please see the User's Guide for more information.*

Item	Input	Jobs	Labor Income	Output
Employment	24	56	\$4,664,308	\$18,102,907
Annual Payroll	1,293,185	29	\$2,416,305	\$9,378,055
Annual Operating Expenses	1,969,385	11	\$890,065	\$3,454,482
3 Yr Avg Capital Expenses	655,973	0	\$376,988	\$1,099,447

**Summary of Output**



- Airport Capital Improvement
- GA Visitor Activity
- Airport Activity
- CS Visitor Activity
- Tenant Activity

## Selecting Your Airport

In the top left-hand corner is the airport selection panel. Select your airport from the drop-down menu, and the county and region will automatically populate below. If you are having trouble locating the airport, see Appendix A: Airport Reference Table to determine the exact name of your airport in the Estimator tool.

The table is sorted alphabetically by associated city. The county and regions are used to determine the correct multipliers for your airport. The airport selection determines the county and region in which your airport is located. The region is used to provide appropriate multipliers for activity at your airport in terms of employment, capital improvements, and tenant activity. Visitor spending is also calculated based on region using data from the Governor's Office on travel spending in Texas.

Alongside the airport selection panel is a map. The map will zoom to the airport selected. Users have the option to control the map in order to view surrounding airports.

**Select Airport**

Abilene Regional Airport

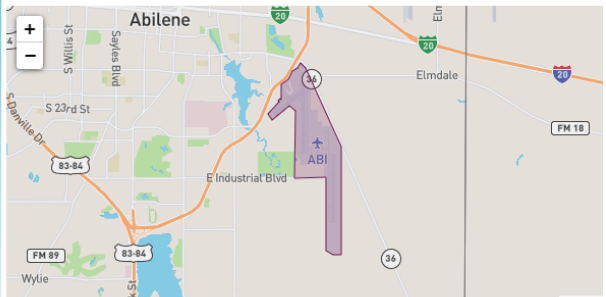
**County** Taylor

**Region** West Texas

**Select Input/Output**

**Airport** Visitor Tenant

**Map**



Once you have chosen your airport in the airport selection panel, the calculator will automatically populate using data from the Texas Department of Transportation's (TxDOT's)

Economic Impact of Texas Airport survey and report. The following screenshot shows an example.

**Select Airport**

Abilene Regional Airport

**County** Taylor

**Region** West Texas

**Select Input/Output**

**Airport** Visitor Tenant

**Map**

**Airport Activity**

*The estimator will only use one of the first three inputs to calculate the economic impact. Please see the User's Guide for more information.*

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## Airport-Sponsored Activity Tab

The “Airport” activity tab is the first tab under “Select Input/Output.” This tab shows activity that is directly related to airport activity, such as the operation of terminal(s), runway(s), and other facilities. This does not include tenant activity on the airport; this can be inputted through the “Tenant” tab, which is discussed later in this guide.

**Select Airport**

Abilene Regional Airport

**County** Taylor

**Region** West Texas

**Select Input/Output**

**Airport** Visitor Tenant

**Map**

**Summary**

Item	Jobs	Labor Income	Output
Airport Activity	11	\$890,065	\$3,454,482
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**Summary of Output**

- Airport Capital Improvement
- Airport Activity
- GA Visitor Activity
- CS Visitor Activity
- Tenant Activity

The calculator includes the employment number, payroll amount, and annual operating expenses from the survey. In addition, the three-year average capital expenditures are included. The capital expenditures are calculated using capital expenses reported for the previous economic impact study along with funding provided by TxDOT for capital improvements. Capital

improvement costs include Airport Improvement Program funds from the Federal Aviation Administration (FAA) that are distributed through TxDOT, the Routine Airport Maintenance Program (RAMP), and self-reported investments from airport tenants. RAMP funding is largely used for maintenance but can be used for smaller capital improvement projects.

The red box in the following screenshot shows the inputs that the user can update. The calculator starts with the default numbers from the previous economic impact study in the “Input” column, but if activity has changed or more up-to-date data are available, the user can input this information here.

**Airport Activity**

*The estimator will only use one of the first three inputs to calculate the economic impact. Please see the User's Guide for more information.*

Item	Input	Jobs	Labor Income	Output
Employment	24	56	\$4,664,308	\$18,102,907
Annual Payroll	1,293,185	29	\$2,416,305	\$9,378,055
Annual Operating Expenses	1,969,385	11	\$890,065	\$3,454,482
3 Yr Avg Capital Expenses	655,973	8	\$376,988	\$1,099,447

*When editing the inputs, the user should remember the order of operations; the calculator will use the annual operating expenses if a number is in that cell. In order to edit, remove all numbers from employment, payroll, and operating expenses before entering the updated data. Once these numbers are edited, the summary table and output graphic will change to display the new results. The calculator allows the inputs to be edited for all three activity types—airport, visitor, and tenant—using the “Input” column. The “Input” column is highlighted in the previous screenshot.*

The following screenshot shows that the user has increased employment from 24 to 30 and changed the other two possible inputs (annual payroll and annual operating expenses) to 0 to ensure the Estimator calculates based on the updated employment number.

**Select Airport**

Abilene Regional Airport

County: Taylor  
Region: West Texas

**Select Input/Output**

Airport Visitor Tenant

**Map**

**Summary**

Item	Jobs	Labor Income	Output
Airport Activity	72	\$5,954,435	\$23,110,094
Airport Capital Improvements	8	\$376,988	\$1,099,447
GA Visitor Activity	129	\$2,575,446	\$7,206,696
CS Visitor Activity	466	\$9,272,686	\$25,947,131
Tenant Activity	1,002	\$45,488,469	\$145,635,606
<b>Total</b>	<b>1,677</b>	<b>\$63,668,025</b>	<b>\$202,998,974</b>

**Airport Activity**

*The estimator will only use one of the first three inputs to calculate the economic impact. Please see the User's Guide for more information.*

Item	Input	Jobs	Labor Income	Output
Employment	30	72	\$5,954,435	\$23,110,094
Annual Payroll	0	0	\$0	\$0
Annual Operating Expenses	0	0	\$0	\$0
3 Yr Avg Capital Expenses	655,973	8	\$376,988	\$1,099,447

**Summary of Output**

● Airport Capital Improvement    ● Airport Activity  
● GA Visitor Activity    ● CS Visitor Activity  
● Tenant Activity

## Visitor Activity Tab

After reviewing and/or changing the airport inputs, the user then selects the “Visitor” input tab, and the “Visitor Activity” screen will populate.

**Small Airport Economic Impact Estimator**

User's Guide Print

Select Airport: Abilene Regional Airport

County: Taylor, Region: West Texas

Select Input/Output: Airport Visitor Tenant

Map: Shows the location of the Abilene Regional Airport (ABI) in Abilene, Texas, with a map of the surrounding area including highways and landmarks.

Summary			
Item	Jobs	Labor Income	Output
Airport Activity	72	\$5,954,435	\$23,110,094
Airport Capital Improvements	8	\$376,988	\$1,099,447
GA Visitor Activity	129	\$2,575,446	\$7,206,696
CS Visitor Activity	466	\$9,272,686	\$25,947,131
Tenant Activity	1,002	\$45,488,469	\$145,635,606
<b>Total</b>	<b>1,677</b>	<b>\$63,668,025</b>	<b>\$202,998,974</b>

Visitor Activity

General Aviation				
Item	Input	Jobs	Labor Income	Output
<b>Total</b>		<b>129</b>	<b>\$2,575,446</b>	<b>\$7,206,696</b>
Itinerant Operations	17,393			
Annual Visitors	10,725			
Ground Passenger Transport	880,308	40	\$553,447	\$1,606,991
Food & Drink	1,012,354	35	\$741,847	\$1,649,083
Lodging	1,716,601	28	\$692,204	\$2,659,692
Retail	528,185	21	\$444,981	\$878,611
Other Recreation	264,092	6	\$142,967	\$412,320

Commercial Service				
Item	Input	Jobs	Labor Income	Output
<b>Total</b>		<b>466</b>	<b>\$9,272,686</b>	<b>\$25,947,131</b>
Enplanements	77,229			

Summary of Output

Legend: Airport Capital Improvement, Airport Activity, GA Visitor Activity, CS Visitor Activity, Tenant Activity

Depending on your airport type, the table will populate with either general aviation, commercial service, or both. The estimator uses itinerant operations, from FAA’s Terminal Area Forecast, to determine the number of visitors at general aviation airports and enplanements for airports with commercial service. Thirty-three percent of itinerant operations are considered true transient arrivals. This is then multiplied by the number of visitors per arrival as determined by CDM Smith, which completed the latest economic impact study. These numbers are based on data from CDM Smith’s survey of visiting pilots and passengers at Texas airports. The breakdown of visitors per arrival is as follows:

- 0 to 499 itinerant operations: 2.8 visitors per arrival
- 500 to 4,999 itinerant operations: 2.8 visitors per arrival
- 5,000 to 9,999 itinerant operations: 2.1 visitors per arrival
- 10,000 or more itinerant operations: 2.7 visitors per arrival

In terms of visitors for commercial service airports, the calculation is half of the reported enplanements, representing a return trip. The following screenshot shows the full “Visitor Activity” table.



## Visitor Activity

### General Aviation

Item	Input	Jobs	Labor Income	Output
<b>Total</b>		<b>129</b>	<b>\$2,575,446</b>	<b>\$7,206,696</b>
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### Commercial Service

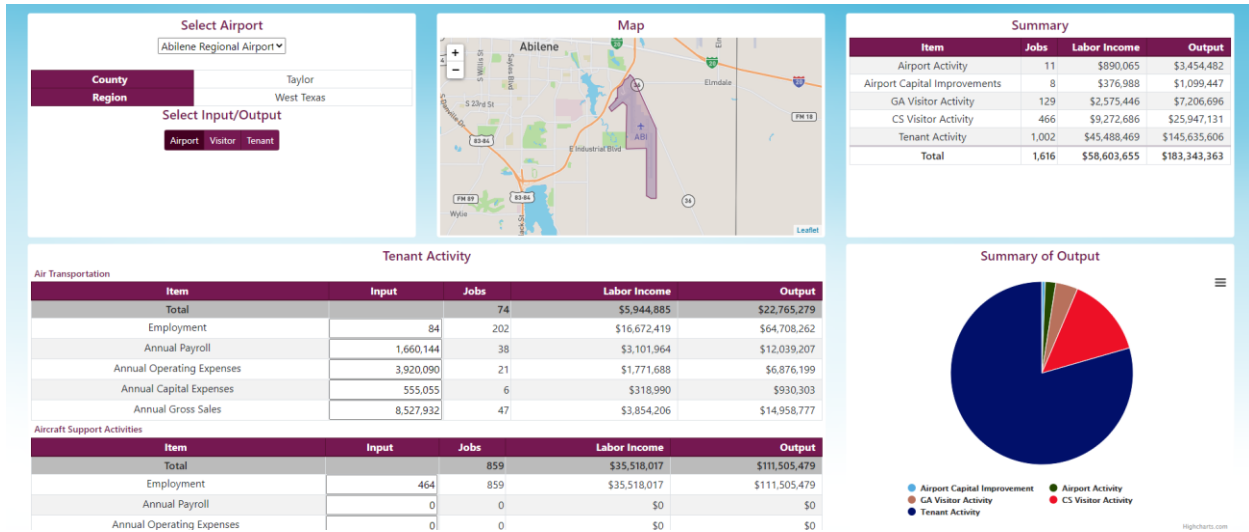
Item	Input	Jobs	Labor Income	Output
<b>Total</b>		<b>466</b>	<b>\$9,272,686</b>	<b>\$25,947,131</b>
Enplanements	77,229			
Annual Visitors	38,615			
Ground Passenger Transport	3,169,478	145	\$1,992,641	\$5,785,841
Food & Drink	3,644,900	125	\$2,670,960	\$5,937,389
Lodging	6,180,482	100	\$2,492,224	\$9,576,009
Retail	1,901,687	75	\$1,602,120	\$3,163,367
Other Recreation	950,843	21	\$514,741	\$1,484,525

If better data are available, in terms of either itinerant operation/enplanements or annual visitors, the user can edit these to reflect that change. The Estimator uses regional multipliers to determine the visitor impacts; the data involved in these calculations come from the Governor's Office (<https://gov.texas.gov/travel-texas/page/travel-research>).

The visitor spending output calculates the typical amount spent per person for a stay in that region. The standard trip length is two days, and the Estimator includes expenses for accommodations, transportation other than air travel, food and drink, retail, and recreation activities, all of which contributes to the regional economy around the airport.

## Tenant/Business Activity Tab

Tenant activity refers to on-airport activity that is not managed or run by the airport itself. A set of 16 industry or business sectors were used in creating the Estimator. Each business sector is connected to the appropriate multiplier for its industry. In order to derive the most accurate results, the correct industry sector must be chosen. The calculator displays the industry and business sectors after the "Tenant" tab is selected.



The following subsections provide an overview of the industry sector and typical jobs or businesses that should be included within the sector. The user should enter the tenant or business activity information under the appropriate industry to derive the most accurate estimates. The inputs under the “Tenant” tab are similar to the “Airport” activity tab, with the addition of annual gross sales to represent businesses at the airport. These numbers can be edited, and new businesses can be added as the airport grows and changes.

### Air Transportation and Related Activities

Air transportation refers to industries and job titles that relate to the transport of goods and people by air. The following business categories are included in the model:

- Air transportation
- Aircraft support activities
- Aviation schools
- Air ambulance

*Air transportation* includes businesses or tenants such as the fixed-base operators or charter airlines.

*Aircraft support activities* generally refer to the maintenance of aircraft and related equipment. Businesses included in this category are general aircraft maintenance and air traffic control.

*Aviation schools* refer to flight schools and flight instructors or flight instruction that is provided at the airport.

*Air ambulance* activities refer to medical-related flights conducted by fixed-wing aircraft or helicopters.

### Non-air Transportation

Parking and car rental facilities are typically located on airport property, but these services can be owned and operated by private companies. For example, airports may use a private company to manage their parking lots and garages. Two business categories in the model support these types of businesses:

- Rental cars
- Parking garages/lots

### Recreation and Retail on Airports

Airports that accommodate visitors, either through general aviation activity or commercial service, often have a number of recreation, retail, and food outlets at the airport. The following business sectors in the model support the inclusion of visitor-related tenants:

- Food and drinking places
- Retail/miscellaneous store retailers
- Other amusement and recreation industries

### Available Space and Developable Land

Airports can have developable land that is not in use or needed to effectively maintain the services and facilities provided. In addition, buildings and structures can be leased out when no longer required for airport purposes. Common potential uses include museums, office space, and manufacturers. The model supports the following industry categories to account for this:

- Support activities for agriculture or oil and gas
- Other professional services
- Manufacturing

In addition, the model supports the rental of property that is generally used for storage or event purposes with the following category:

- Hangar rental/development

### Government Employment

Government employment covers activity on airports that supports a government function, such as the Transportation Security Administration, federal government offices, military offices, and state and local operations, such as police helicopters.

### Other

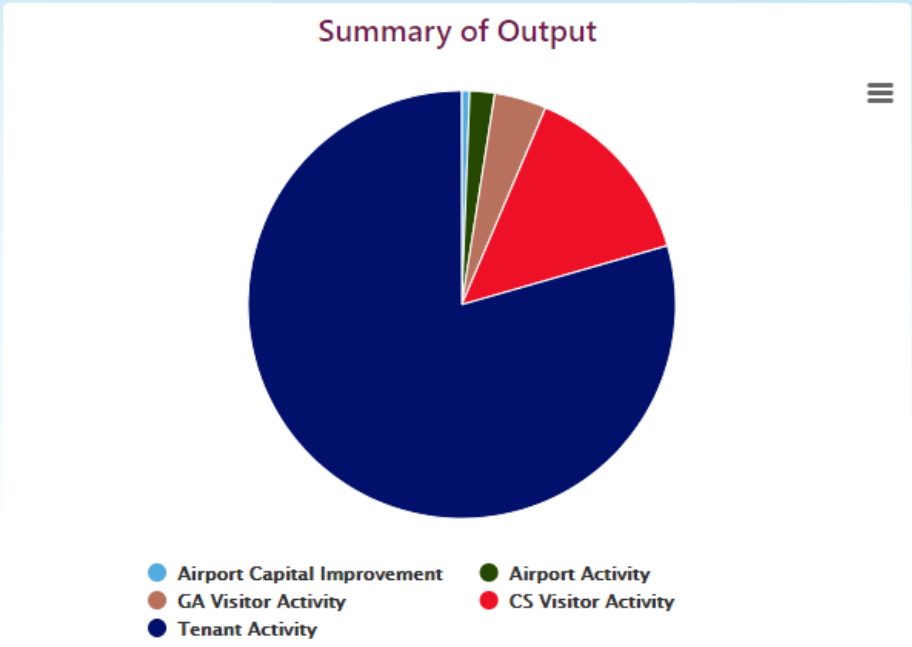
If none of these industry categories apply to a particular tenant(s) at your airport, the “Other” category allows for the entry of unique businesses into the model.

## Summary of Results

Once the user has checked the inputs and made any necessary edits, the economic input of the airport will be displayed in the results table, and corresponding pie charts will generate. The results show the economic impact in terms of employment, the number of jobs the airport supports, labor income, payroll expenditures related to the supported employment, and output (the total economic activity in dollars) supported by the airport.

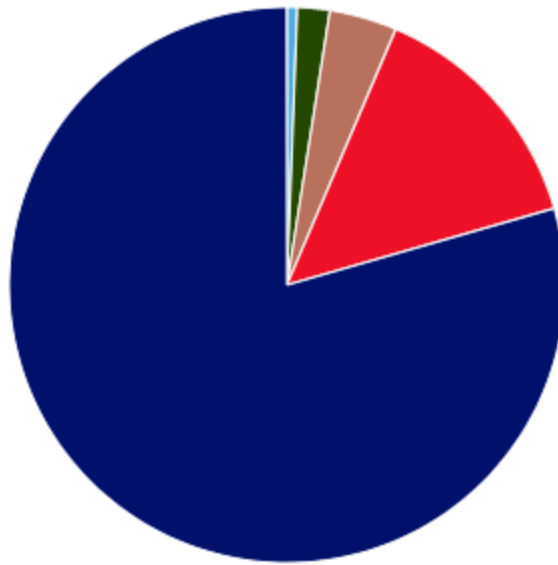
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Item	Jobs	Labor Income	Output
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The results will change if the user goes back and alters the inputs. The results automatically calculate as changes are made to each tab. The summary pie chart presents the total output numbers by default, but the user can change the pie chart using the collapsed menu icon (hamburger button) highlighted in the following screenshot. The user can then choose to display the summary results in terms of either jobs or labor income.

## Summary of Output



☰  
 Show Jobs  
 Show Labor Income  
 Show Output

- Airport Capital Improvement
- Airport Activity
- GA Visitor Activity
- CS Visitor Activity
- Tenant Activity

Once the user has finished editing the inputs and has the desired summary results displayed, the user can then print a PDF of these results. The “Print” button is located at the top of the screen (highlighted in the following screenshot) and allows the user to save to PDF or print the results immediately.

### Small Airport Economic Impact Estimator

Print

Select Airport  
Abilene Regional Airport

County: Taylor  
Region: West Texas

Select Input/Output  
 Airport
  Visitor
  Tenant

Map

Summary

Item	Jobs	Labor Income	Output
Airport Activity	11	\$890,065	\$3,454,482
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**Airport Activity**

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3 Yr Avg Capital Expenses	655,973	8	\$376,988	\$1,099,447

Summary of Output

## Appendix A: Airport Reference Table

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
<b>Abilene Regional Airport</b>	Taylor, Jones	West Texas	Abilene
<b>Albany Municipal</b>	Shackelford	West Texas	Albany
<b>Alice International Airport</b>	Jim Wells	South Texas	Alice
<b>Alpine Casparis Municipal Airport</b>	Brewster	West Texas	Alpine
<b>Rick Husband Amarillo Int'l Airport</b>	Potter	Panhandle	Amarillo
<b>Tradewind</b>	Potter	Panhandle	Amarillo
<b>Chambers County-Anahuac</b>	Chambers	Upper Gulf Coast	Anahuac
<b>Andrews County Airport</b>	Andrews	West Texas	Andrews
<b>Texas Gulf Coast Regional</b>	Brazoria	Upper Gulf Coast	Angleton/Lake Jackson
<b>Arlington Municipal Airport</b>	Tarrant	North Texas	Arlington
<b>Stonewall County</b>	Stonewall	West Texas	Aspermont
<b>Athens Municipal</b>	Henderson	East Texas	Athens
<b>Hall-Miller Municipal</b>	Cass	East Texas	Atlanta
<b>Austin-Bergstrom International</b>	Travis	Central Texas	Austin
<b>Bruce Field</b>	Runnels	West Texas	Ballinger
<b>Bay City Regional Airport</b>	Matagorda	Upper Gulf Coast	Bay City
<b>Beaumont Municipal</b>	Jefferson	East Texas	Beaumont
<b>Jack Brooks Regional</b>	Jefferson	East Texas	Beaumont/Port Arthur
<b>Beeville Municipal</b>	Bee	South Texas	Beeville
<b>Reagan County</b>	Reagan	West Texas	Big Lake
<b>Big Spring McMahan-Wrinkle</b>	Howard	West Texas	Big Spring
<b>Bishop Municipal Airport</b>	Potter	Panhandle	Bishop
<b>Jones Field Airport</b>	Fannin	North Texas	Bonham
<b>Hutchinson County</b>	Hutchinson	Panhandle	Borger
<b>Bowie Municipal Airport</b>	Montague	North Texas	Bowie
<b>Curtis Field</b>	McCulloch	West Texas	Brady
<b>Stephens County</b>	Stephens	West Texas	Breckenridge
<b>Brenham Municipal</b>	Washington	Central Texas	Brenham
<b>Bridgeport Municipal Airport</b>	Wise	North Texas	Bridgeport
<b>Terry County</b>	Terry	West Texas	Brownfield
<b>Brownsville/South Padre Island International</b>	Cameron	South Texas	Brownsville
<b>Brownwood Regional</b>	Brown	West Texas	Brownwood
<b>Coulter Field</b>	Brazos	Central Texas	Bryan
<b>Burnet Municipal Airport</b>	Burnet	Central Texas	Burnet
<b>Caddo Mills Municipal</b>	Hunt	North Texas	Caddo Mills
<b>Caldwell Municipal</b>	Burleson	Central Texas	Caldwell

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
<b>Cameron Municipal Airpark</b>	Milam	Central Texas	Cameron
<b>Hemphill County</b>	Hemphill	Panhandle	Canadian
<b>Dimmit County Airport</b>	Dimmit	South Texas	Carrizo Springs
<b>Panola County-Sharpe Field</b>	Panola	East Texas	Carthage
<b>Castroville Municipal</b>	Medina	South Texas	Castroville
<b>Center Municipal</b>	Shelby	East Texas	Center
<b>Childress Municipal</b>	Childress	Panhandle	Childress
<b>Cisco Municipal</b>	Eastland	West Texas	Cisco
<b>Smiley Johnson/Bass Field</b>	Donley	Panhandle	Clarendon
<b>Clarksville/Red River County-J D Trissell Field</b>	Red River	East Texas	Clarksville
<b>Cleburne Regional Airport</b>	Johnson	North Texas	Cleburne
<b>Cleveland Municipal</b>	Liberty	Upper Gulf Coast	Cleveland
<b>Clifton Municipal</b>	Bosque	West Texas	Clifton
<b>Coleman Municipal</b>	Coleman	West Texas	Coleman
<b>Easterwood Field</b>	Brazos	Central Texas	College Station
<b>Colorado City Municipal Airport</b>	Mitchell	West Texas	Colorado City
<b>Robert R. Wells</b>	Colorado	Upper Gulf Coast	Columbus
<b>Comanche County-City</b>	Comanche	West Texas	Comanche
<b>Commerce Municipal</b>	Hunt	North Texas	Commerce
<b>Corpus Christi International</b>	Nueces	South Texas	Corpus Christi
<b>C David Campbell Field-Corsicana Municipal</b>	Navarro	North Texas	Corsicana
<b>Cotulla-La Salle County Airport</b>	La Salle	South Texas	Cotulla
<b>Crane County</b>	Crane	West Texas	Crane
<b>Houston County</b>	Houston	East Texas	Crockett
<b>Crosbyton Municipal Airport</b>	Crosby	West Texas	Crosbyton
<b>Crystal City Municipal</b>	Zavala	South Texas	Crystal City
<b>Cuero Muni</b>	De Witt	West Texas	Cuero
<b>Greater Morris County</b>	Morris	East Texas	Daingerfield
<b>Dalhart Muni</b>	Dallam	Panhandle	Dalhart
<b>Addison Airport</b>	Dallas	North Texas	Dallas
<b>Dallas CBD Vertiport</b>	Denton	North Texas	Dallas
<b>Dallas Executive</b>	Denton	North Texas	Dallas
<b>Dallas Love Field</b>	Denton	North Texas	Dallas
<b>McKinney National</b>	Denton	North Texas	Dallas
<b>Dallas/Fort Worth International</b>	Denton	North Texas	Dallas-Fort Worth
<b>Decatur Municipal Airport</b>	Wise	North Texas	Decatur
<b>Del Rio International Airport</b>	Val Verde	South Texas	Del Rio
<b>Dell City Municipal Airport</b>	Hudspeth	West Texas	Dell City

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
Denton Enterprise Airport	Denton	North Texas	Denton
Denver City Airport	Yoakum	West Texas	Denver City
Desoto Heliport	Dallas	North Texas	Desoto
Devine Municipal Airport	Medina	South Texas	Devine
Dilley Airport	Frio	South Texas	Dilley
Dimmit Municipal	Dimmit	South Texas	Dimmitt
Terrell County Airport	Terrell	West Texas	Dryden
Dublin Municipal Airport	Erath	North Texas	Dublin
Moore County Airport	Moore	Panhandle	Dumas
Eagle Lake Regional	Colorado	Upper Gulf Coast	Eagle Lake
Maverick County Memorial International	Mason	West Texas	Eagle Pass
Eastland Municipal	Eastland	West Texas	Eastland
South Texas Int'l at Edinburg	Hidalgo	South Texas	Edinburg
Jackson County	Jackson	South Texas	Edna
El Paso International	El Paso	West Texas	El Paso
Eldorado Airport	Schleicher	West Texas	Eldorado
Ennis Municipal	Ellis	North Texas	Ennis
Fabens	El Paso	West Texas	Fabens
Brooks County	Brooks	South Texas	Falfurrias
Floydada Municipal Airport	Floyd	West Texas	Floydada
Follett/Lipscomb County	Lipscomb	Panhandle	Follett
Fort Stockton/Pecos County	Pecos	West Texas	Fort Stockton
Ft. Worth Alliance	Denton	North Texas	Fort Worth
Ft. Worth Meacham	Denton	North Texas	Fort Worth
Ft. Worth Spinks	Denton	North Texas	Fort Worth
Gillespie County Airport	Gillespie	South Texas	Fredericksburg
Duval-Freer	Duval	South Texas	Freer
Gainesville Municipal	Cooke	North Texas	Gainesville
Scholes Int'l at Galveston	Galveston	Upper Gulf Coast	Galveston
Garland/DFW Heliport	Dallas	North Texas	Garland
Gatesville Municipal Airport	Coryell	Central Texas	Gatesville
Live Oak County	Live Oak	South Texas	George West
Georgetown Municipal	Williamson	Central Texas	Georgetown
Giddings-Lee County Airport	Lee	Central Texas	Giddings
Fox Stephens Field-Gilmer Municipal	Upshur	East Texas	Gilmer
Gladewater Municipal Airport	Gregg	East Texas	Gladewater
Goldthwaite Airport	Mills	Central Texas	Goldthwaite
Roger M. Dreyer Memorial	Gonzales	South Texas	Gonzales



<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
<b>Possum Kingdom Airport</b>	Palo Pinto	North Texas	Graford
<b>Graham Municipal Airport</b>	Young	North Texas	Graham
<b>Granbury Regional Airport</b>	Hood	North Texas	Granbury
<b>Grand Prairie Municipal</b>	Tarrant	North Texas	Grand Prairie
<b>Greenville Municipal</b>	Hunt	North Texas	Greenville
<b>Groveton-Trinity County</b>	Trinity	East Texas	Groveton
<b>Gruver Municipal</b>	Hansford	Panhandle	Gruver
<b>Hallettsville Muni</b>	Lavaca	South Texas	Hallettsville
<b>Hamilton Municipal</b>	Hamilton	Central Texas	Hamilton
<b>Valley International</b>	Cameron	South Texas	Harlingen
<b>Haskell Municipal Airport</b>	Haskell	West Texas	Haskell
<b>Hearne Municipal</b>	Robertson	Central Texas	Hearne
<b>Jim Hogg County</b>	Jim Hogg	South Texas	Hebbronville
<b>Rusk County Airport</b>	Rusk	East Texas	Henderson
<b>Hereford Municipal</b>	Deaf Smith	Panhandle	Hereford
<b>Higgs/Lipscomb County</b>	Lipscomb	Panhandle	Higgins
<b>Hillsboro Municipal Airport</b>	Hill	Central Texas	Hillsboro
<b>South Texas Regional Airport</b>	Cameron	South Texas	Hondo
<b>Conroe North-Houston Regional</b>	Harris	Upper Gulf Coast	Houston
<b>David Wayne Hooks Memorial</b>	Harris	Upper Gulf Coast	Houston
<b>Ellington Field</b>	Harris	Upper Gulf Coast	Houston
<b>George Bush Intercontinental/Houston</b>	Harris	Upper Gulf Coast	Houston
<b>Houston Southwest</b>	Harris	Upper Gulf Coast	Houston
<b>Pearland Regional</b>	Brazoria	Upper Gulf Coast	Houston
<b>Sugarland Regional</b>	Harris	Upper Gulf Coast	Houston
<b>West Houston Airport</b>	Harris	Upper Gulf Coast	Houston
<b>William P Hobby</b>	Harris	Upper Gulf Coast	Houston
<b>Huntsville Municipal</b>	Walker	Upper Gulf Coast	Huntsville
<b>McCampbell-Porter Airport</b>	San Patricio	South Texas	Ingleside
<b>Jacksboro Municipal</b>	Jack	North Texas	Jacksboro
<b>Cherokee County Airport</b>	Cherokee	East Texas	Jacksonville
<b>Jasper County-Bell Field</b>	Jasper	East Texas	Jasper
<b>Kent County</b>	Kent	West Texas	Jayton
<b>Cypress River</b>	Marion	East Texas	Jefferson

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
<b>Kimble County</b>	Kimble	West Texas	Junction
<b>Karnes County</b>	Karnes	South Texas	Kenedy
<b>Kerrville-Kerr County</b>	Kerr	South Texas	Kerrville
<b>Killeen-Ft. Hood Regional</b>	Bell	Central Texas	Killeen
<b>Killeen-Skylark Field</b>	Bell	Central Texas	Killeen
<b>Kleberg County Airport</b>	Kleberg	South Texas	Kingsville
<b>Kirbyville Airport</b>	Jasper	East Texas	Kirbyville
<b>Harrison Field</b>	Knox	West Texas	Knox City
<b>Hawthorne Field</b>	Hardin	East Texas	Kountze/Silsbee
<b>Fayette Regional Air Center</b>	Fayette	Central Texas	La Grange
<b>La Porte Municipal</b>	Harris	Upper Gulf Coast	La Porte
<b>Lago Vista Rusty Allen Airport</b>	Travis	Central Texas	Lago Vista
<b>Lamesa Municipal Airport</b>	Dawson	West Texas	Lamesa
<b>Lampasas Municipal Airport</b>	Lampasas	Central Texas	Lampasas
<b>Lancaster Regional</b>	Dallas	North Texas	Lancaster
<b>Laredo International</b>	Webb	South Texas	Laredo
<b>Real County</b>	Real	South Texas	Leakey
<b>Levelland Municipal</b>	Hockley	West Texas	Levelland
<b>Liberty Municipal</b>	Gregg	East Texas	Liberty
<b>Taylor Brown Municipal</b>	Lamb	West Texas	Littlefield
<b>Livingston Municipal</b>	Polk	East Texas	Livingston
<b>Llano Municipal Airport</b>	Llano	Central Texas	Llano
<b>Lockhart Municipal</b>	Caldwell	Central Texas	Lockhart
<b>East Texas Regional</b>	Gregg	East Texas	Longview
<b>Lubbock Preston Smith International</b>	Lubbock	West Texas	Lubbock
<b>Angelina County Airport</b>	Angelina	East Texas	Lufkin
<b>The Carter Memorial</b>	Caldwell	Central Texas	Luling
<b>Madisonville Municipal</b>	Madison	Central Texas	Madisonville
<b>Marfa Municipal</b>	Presidio	West Texas	Marfa
<b>Marlin</b>	Falls	Central Texas	Marlin
<b>Harrison County Airport</b>	Harrison	East Texas	Marshall
<b>Mason County Airport</b>	Mason	West Texas	Mason
<b>McAllen Miller International</b>	Hidalgo	South Texas	McAllen
<b>Upton County Airport</b>	Upton	West Texas	McCamey
<b>McLean/Gray County</b>	Gray	Panhandle	McLean
<b>Memphis Municipal</b>	Hall	Panhandle	Memphis
<b>Menard County Airport</b>	Menard	West Texas	Menard
<b>Mesquite Metro</b>	Dallas	North Texas	Mesquite
<b>Mexia-Limestone County</b>	Limestone	Central Texas	Mexia
<b>Miami-Roberts County</b>	Roberts	Panhandle	Miami

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
Midland Airpark	Midland	West Texas	Midland
Midland International Air & Space Port	Midland	West Texas	Midland
Mid-way Regional	Ellis	North Texas	Midlothian/ Waxahachie
Wood County	Wood	East Texas	Mineola/Quitman
Mineral Wells Airport	Palo Pinto	North Texas	Mineral Wells
Roy Hurd Memorial	Ward	West Texas	Monahans
Cochran County	Cochran	West Texas	Morton
Mt. Pleasant Regional Airport	Titus	East Texas	Mount Pleasant
Franklin County	Franklin	East Texas	Mount Vernon
Muleshoe Municipal	Bailey	West Texas	Muleshoe
Munday Municipal Airport	Knox	West Texas	Munday
A. L. Mangham Jr. Regional Airport	Nacogdoches	East Texas	Nacogdoches
Navasota Municipal Airport	Grimes	Central Texas	Navasota
New Braunfels Regional	Comal	South Texas	New Braunfels
Newton Municipal	Newton	East Texas	Newton
Odessa-Schlemeyer Field	Ector	West Texas	Odessa
Olney Municipal	Young	North Texas	Olney
Orange County Airport	Orange	Panhandle	Orange
Ozona Municipal	Crockett	West Texas	Ozona
Dan E Richards	Cottle	North Texas	Paducah
Palacios Municipal Airport	Matagorda	Upper Gulf Coast	Palacios
Palestine Municipal Airport	Anderson	East Texas	Palestine
Perry Lefors Field	Gray	Panhandle	Pampa
Panhandle-Carson County Airport	Carson	Panhandle	Panhandle
Cox Field	Lamar	East Texas	Paris
McKinley Field	Frio	South Texas	Pearsall
Pecos Municipal	Reeves	West Texas	Pecos
Perryton/Ochiltree County Airport	Ochiltree	Panhandle	Perryton
Pineland Municipal Airport	Sabine	East Texas	Pineland
Yoakum County Airport	Yoakum	West Texas	Plains
Hale County	Hale	West Texas	Plainview
Pleasanton Municipal Airport	Atascosa	South Texas	Pleasanton
Mustang Beach	Nueces	South Texas	Port Aransas
Port Isabel Cameron County Airport	Cameron	South Texas	Port Isabel
Calhoun County Airport	Calhoun	South Texas	Port Lavaca
Charles R Johnson	Willacy	South Texas	Port Mansfield
Post/Garza County Airport	Garza	West Texas	Post
Presidio Lely international	Presidio	West Texas	Presidio

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
Quanah Municipal	Hardeman	North Texas	Quanah
Refugio County Airport-Rooke Field	Refugio	South Texas	Refugio
Rio Grande City Municipal Airport	Starr	South Texas	Rio Grande City
Northwest Regional Airport	Denton	North Texas	Roanoke
Robert Lee	Coke	West Texas	Robert Lee
Nueces County Airport	Nueces	South Texas	Robstown
H H Coffield Regional	Milam	Central Texas	Rockdale
Aransas County Airport	Aransas	South Texas	Rockport
Edwards County Airport	Edwards	South Texas	Rocksprings
Ralph M. Hall/Rockwall Municipal Airport	Rockwall	North Texas	Rockwall
Fisher County Airport	Fisher	West Texas	Rotan/Roby
San Angelo Regional-Mathis Field	Tom Green	West Texas	San Angelo
Kelly Field	Bexar	South Texas	San Antonio
San Antonio International	Bexar	South Texas	San Antonio
Stinson Municipal	Bexar	South Texas	San Antonio
San Augustine County	San Augustine	East Texas	San Augustine
San Marcos Regional	Travis	Central Texas	San Marcos
San Saba Municipal Airport	San Saba	Central Texas	San Saba
Gaines County Airport	Gaines	West Texas	Seminole
Seymour Municipal Airport	Baylor	North Texas	Seymour
City of Shamrock	Wheeler	Panhandle	Shamrock
Sherman Municipal	Grayson	North Texas	Sherman
North Texas Regional Airport	Grayson	North Texas	Sherman/Denison
Alfred C. Bubba Thomas Airport	San Patricio	South Texas	Sinton
Slaton Municipal	Lubbock	West Texas	Slaton
Smithville Crawford Municipal Airport	Bastrop	Central Texas	Smithville
Winston Field	Scurry	West Texas	Snyder
Sonora Airport	Sutton	West Texas	Sonora
Major Samuel B Cornelius Field	Hansford	Panhandle	Spearman
Arledge Field	Haskell	West Texas	Stamford
Stanton Municipal	Martin	West Texas	Stanton
Stephenville Clark Regional Airport	Erath	North Texas	Stephenville
Sulphur Springs Municipal	Hopkins	East Texas	Sulphur Springs
Sunray Municipal	Moore	Panhandle	Sunray
Avenger Field	Nolan	West Texas	Sweetwater
T-Bar Airport	Lynn	West Texas	Tahoka
Taylor Municipal	Williamson	Central Texas	Taylor
Teague Municipal Airport	Freestone	Central Texas	Teague

<b>Airport</b>	<b>County</b>	<b>Region</b>	<b>Associated City</b>
<b>Draughon-Miller Central Texas Regional Airport</b>	Bell	Central Texas	Temple
<b>Terrell Municipal Airport</b>	Kaufman	North Texas	Terrell
<b>Texarkana Regional Airport-Webb Field</b>	Bowie	East Texas	Texarkana
<b>Throckmorton Municipal</b>	Throckmorton	West Texas	Throckmorton
<b>City of Tulia/Swisher County Municipal</b>	Swisher	Panhandle	Tulia
<b>Tyler Pounds Regional</b>	Upton	West Texas	Tyler
<b>Garner Field Airport</b>	Uvalde	South Texas	Uvalde
<b>Culberson County</b>	Culberson	West Texas	Van Horn
<b>Oldham County</b>	Oldham	Panhandle	Vega
<b>Wilbarger County Airport</b>	Wilbarger	North Texas	Vernon
<b>Victoria Regional</b>	Victoria	South Texas	Victoria
<b>McGregor Executive</b>	McLennan	Central Texas	Waco
<b>TSTC Waco</b>	McLennan	Central Texas	Waco
<b>Waco Regional</b>	McLennan	Central Texas	Waco
<b>Marian Airpark</b>	Collingsworth	Panhandle	Wellington
<b>Mid Valley</b>	Hidalgo	South Texas	Weslaco
<b>Wharton Regional Airport</b>	Wharton	Upper Gulf Coast	Wharton
<b>Wheeler Municipal</b>	Wheeler	Panhandle	Wheeler
<b>Kickapoo Downtown</b>	Wichita	North Texas	Wichita Falls
<b>Sheppard AFB/Wichita Falls Municipal</b>	Wichita	North Texas	Wichita Falls
<b>Van Zandt County Regional Airport</b>	Van Zandt	East Texas	Wills Point
<b>Winkler County</b>	Winkler	West Texas	Wink
<b>Chambers County-Winnie Stowell</b>	Chambers	Upper Gulf Coast	Winnie/Stowell
<b>Winnsboro Municipal Airport</b>	Franklin	East Texas	Winnsboro
<b>Winters Municipal</b>	Runnels	West Texas	Winters
<b>Tyler County</b>	Tyler	East Texas	Woodville
<b>Yoakum Muni</b>	DeWitt	West Texas	Yoakum
<b>Zapata County Airport</b>	Zapata	South Texas	Zapata

## Appendix B: Glossary

**Air Transportation**—industries and job titles that relate to the transport of goods and people by air.

**Aircraft Support Activities**—the maintenance of aircraft and related equipment. Businesses included in this category are general aircraft maintenance and air traffic control.

**Airport Activity**—activity that is directly related to the operation of the airport and related facilities, including the terminal building(s) and runway(s). Airport activity does not include activity related to businesses on airports (see **Tenant Activity**).

**Airport Sponsor**—an airport’s owner/operator, including a city, county, or state.

**Annual Operating Expenses**—operating expenses can be divided into four categories: airfield area expenses, terminal expenses, hangars and other buildings and grounds expenses, and general and administrative expenses.<sup>1</sup>

**Capital Expenses**—represent construction improvements made to the airport, in terms of runway rehabilitation or terminal improvements.

**Commercial Service Airport**—a publicly owned airport that has at least 2,500 passenger boardings each calendar year and receives scheduled passenger service.

**Employment**—full- and part-time jobs offered by airports or business owners, with part-time jobs being calculated to create a full-time equivalent number of positions.

**Enplanement**—a person boarding in the United States in scheduled or nonscheduled service.

**General Aviation Airport**—a public-use airport that does not have scheduled service or has less than 2,500 annual passenger boardings.

**Input/Output Model**—a type of applied economic analysis that tracks the interdependence among various producing and consuming sectors of an economy. More particularly, it measures the relationship between a given set of demands for final goods and services and the inputs required to satisfy those demands.<sup>2</sup>

**Itinerant Operations**—the takeoff or landing of airplanes going from one airport to another.

**Multipliers**—a measure of an industry’s connection to the wider local economy by way of input purchases, payments of wages and taxes, and other transactions.<sup>3</sup>

**Output**—goods and services that are generated by the airport on an annual basis, expressed in dollar amounts.

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<sup>1</sup> Aviation World. Chapter 8: Airport Financial Management.

<http://worldaboutaviation.blogspot.com/2012/01/ch8-airport-ainancial-management.html>

<sup>2</sup> IMPLAN. Input-Output (I-O) Analysis. <https://implanhelp.zendesk.com/hc/en-us/articles/115009666948-Input-Output-I-O-Analysis>.

<sup>3</sup> IMPLAN. Multipliers. <https://implanhelp.zendesk.com/hc/en-us/articles/115009499487-Multipliers>.

**Payroll**—the expenses related to salaries, wages, and benefits earned by all employees and business owners at the airport.

**Tenant Activity**—on-airport activity that is not managed or run by the airport itself, including airport tenants that are businesses with employees, such as airlines, fixed-base operators, concessionaires, and flight schools.

**Visitor Activity**—typical spending per person for a stay in that region.