

Oklahoma

AVIATION & AEROSPACE ECONOMIC IMPACT STUDY

ECONOMIC IMPACT TRAINING SEPTEMBER 15, 2017

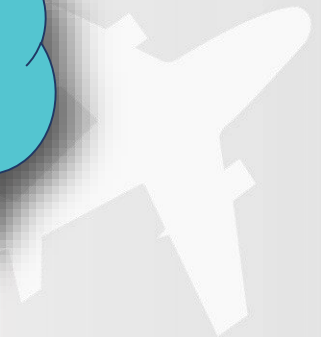


My Airport's Annual Economic Impact Is.....

I can't believe the airport supports this much benefit!

The airport really supports \$2.5 million in annual economic activity?

There aren't 20 people working at the airport!



What to Expect...

You are going to get questions

We will equip you with information you need to provide answers

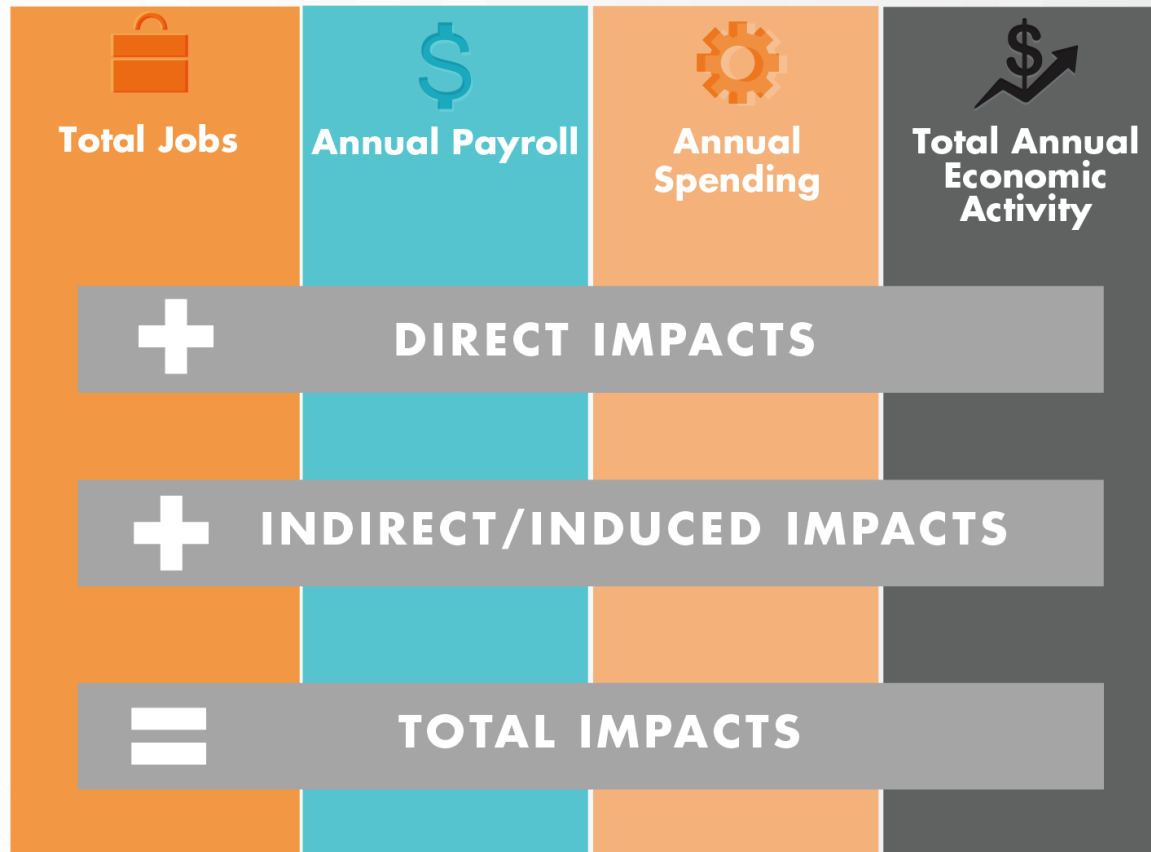
When you leave today, we don't expect you to be an economist

After today, we expect you will be to:

- Explain data sources to estimate your airport's impact
- Walk someone through the general process used to estimate your airport's impacts
- Discuss with greater confidence reported impacts for your airport
- Defend your airport's estimated annual economic impact

You Need to Understand How Economic Impacts Are Reported

ANNUAL ECONOMIC IMPACTS ALL STUDY AIRPORTS



Key Terms Study Terms

- **Direct Impacts** – The start of all impacts measured in the OAC study
- **Indirect/Induced Impacts** – Impacts associated with Direct Impacts multiplying
- **IMPLAN** – Input/output model used to estimate Indirect/Induced Impacts
- **Annual Economic Activity** = Annual Payroll + Annual Spending
- Results in OAC represent a “**snapshot**” in time



Four Measures Used to Quantify Each Airport's Economic Impact



Employment



Annual Payroll



Spending



Annual Economic Activity

Spending

Annual Economic Activity

Total Annual Economic Impacts Come from One of Five “Buckets”

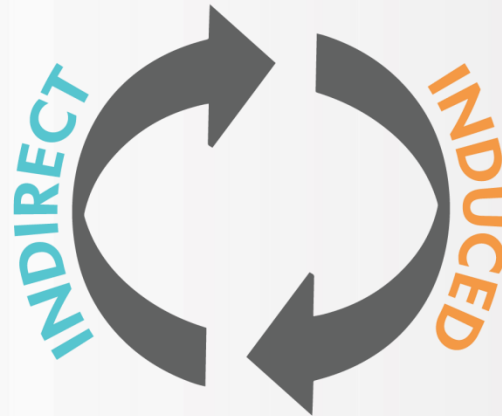
-  Airport Management
-  Airport Tenants
-  Average Annual Capital Investment
-  General Aviation Visitor Spending
-  Commercial Visitor Spending

Not All Airports Have Impacts in Each of the 5 Buckets



General Process Used to Estimate Total Annual Economic Impacts

MULTIPLIER IMPACTS



IMPLAN MODEL



Training Today Focuses On

- **Direct Impacts** for Management, Tenants, and CIP/Visitor Spending
- **Indirect/Induced** (Multiplier) **Impacts** from the **IMPLAN** Model
- **Total Annual Economic Impacts** = Direct + Indirect + Induced = Total Impacts





Direct Impacts

Direct Impacts from Airport Management

EMPLOYMENT

ANNUAL PAYROLL

ANNUAL SPENDING

- Collected from each airport specifically for this study (on-site/phone interviews)
- Employment includes part-time and seasonal employees, plus off-airport employment
- Less than full-time jobs converted to full-time equivalent (FTE)



Example of Direct Airport Management Impacts

Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
4	\$140,000	\$60,000	\$200,000

- 2.5 employees on-airport; 1.5 off-airport employees
- Payroll is combined for all employees (both on and off-airport)
- \$60,000 is annual cost to purchase goods/supplies to operate airport
- \$140,000 payroll + \$60,000 spending = \$200,000 annual economic activity



Direct Impacts from Airport Tenants

EMPLOYMENT

ANNUAL PAYROLL

ANNUAL SPENDING

- Collected from each tenant specifically for this study (on-site/phone interviews)
- Less than full-time jobs converted to full-time equivalent (FTE)
- Only on-airport/aviation-related tenants included in OAC impact results
- Impacts for all tenants reported in one combined number; individual tenant impacts are not shown separately

Example of Direct Airport Tenant Impacts

Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
8	\$304,000	\$200,000	\$504,000

	Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
Tenant #1	2	\$70,000	\$51,000	\$121,000
Tenant #2	1	\$40,000	\$32,000	\$72,000
Tenant #3	5	\$194,000	\$117,000	\$311,000
Total	8	\$304,000	\$200,000	\$504,000

Direct Impacts from Capital Improvement Spending

ANNUAL SPENDING → **EMPLOYMENT** → **ANNUAL PAYROLL**

- Annual capital spending collected for the past 5 years
- 5-year history considered to account for “peaks and valleys” in capital spending especially for smaller airports
- Capital spending collected from OAC, FAA, airports, tenants
- Spending considers both public and private investment
- Impacts in this category exist when spending is taking place
- CIP spending impacts considered to measure full value of airport related economic impact

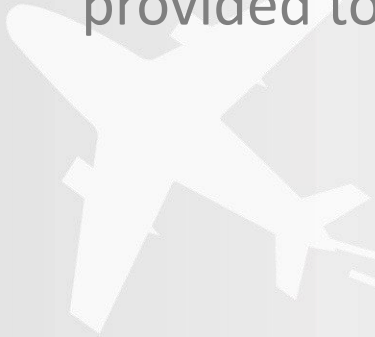
Example of Direct Impacts from Average Annual Capital Spending

- Average annual Direct Spending for CIP (over 5 years) estimated at \$390,000
- IMPLAN model used to convert Direct Spending to Direct Employment and Direct Payroll
- \$95,000 in direct capital spending supports 1 job; \$390,000 divided by \$95,000 = 4.1 jobs
- IMPLAN shows \$55,000 in payroll per job supported; \$55,000 x 4 = \$220,000 Direct Payroll

Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
4	\$220,000	\$390,000	\$610,000

Direct Impacts from General Aviation Visitor Spending

- There are no existing sources for general aviation visitors by airport
- “Bottom-up” estimates for general aviation visitors developed with airport, OAC, AOPA input
- Airports provided estimates of weekly visiting planes, mix for visiting planes, and visitors per plane type
- Final estimates of annual general aviation visitors provided to airports for review



Overview of Process to Estimate Direct General Aviation Visitor Spending

- Estimate annual visiting general aviation aircraft
- Estimate number of visitors arriving on these planes
- Establish characteristics for visitor spending in the airport market area
- Establish % of day trips versus overnight visitor trips
- Establish in overnight category % business vs. leisure travel
- Use surveys to identify spending per trip by visitor type (day, business, leisure)
- Estimate Direct Spending associated with general aviation visitors



Example for Estimating Annual General Aviation Visitors

- Estimated visiting WEEKLY general aviation aircraft = 10
- Mix of visiting weekly planes: 2 Jets (20%); 3 twins (30%); 5 singles (50%)
- Visitors per plane type: jets = 6; twins = 3; and singles 2
- 10 per week x 52 weeks = 520 annual visiting general aviation aircraft
- $624 + 468 + 520 = 1,612$ annual general aviation visitors

20% x 520 → 104 jet arrivals x 6 visitors per plane = **624 visitors jets**

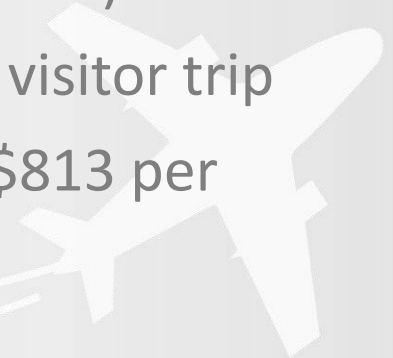
30% x 520 → 156 twin arrivals x 3 visitors per plane = **468 visitors twin-engine planes**

50% x 520 → 260 single arrivals x 2 visitors per plan = **520 visitors single-engine planes**



Information for Estimating Direct General Aviation Visitor Spending

- Airports and FBOs distributed surveys to general aviation visitors
- Survey results showed spending categories for 3 types of airport market areas: rural, urban, or other
- Airports assigned to one of 3 categories
- Visitors assigned to day trip only, overnight business, overnight leisure (%s different by market area)
- Day spending ranged from \$20 to \$50 per visitor trip
- Overnight spending ranged from \$155 to \$813 per visitor trip



Example of Direct General Aviation Visitor Spending

- 1,612 visitors X 50% day trips = 806 x \$40 per day visitor trip = \$32,240
- 806 visitors (50%) spend at least one night: 70% business = 564 visitors and 30% leisure = 242 visitors
- 564 business visitors x \$230 per trip = \$129,720
- 242 leisure visitors x \$350 per trip = \$84,700
- \$32,240 + \$129,720 + \$84,700 = \$246,660 in Direct Annual General Aviation Visitor Spending



Example of Direct Impacts from Annual General Aviation Visitor Spending

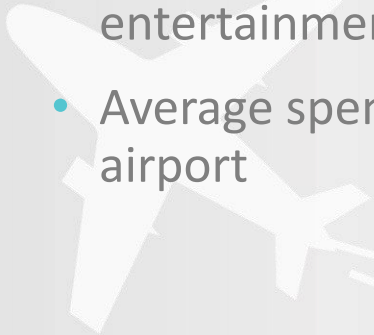
ANNUAL SPENDING → **EMPLOYMENT** → **ANNUAL PAYROLL**

- Annual Direct Spending estimated at \$246,660
- IMPLAN model used to convert Direct Spending to Direct Employment and Direct Payroll
- \$83,000 in Direct Spending supports 1 job; \$246,660 divided by \$83,000 = 2.9 jobs/3 Direct jobs
- IMPLAN shows \$28,000 in Direct Payroll per job supported; \$28,000 x 3 = \$84,000 Direct Payroll

Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
3	\$84,000	\$246,660	\$330,660

Direct Impacts from Commercial Visitor Spending

- Annual total commercial enplanements provided by each commercial airport
- Information from USDOT shows % of all enplanements that are visitors
- Statewide, 1.4 million enplanements (43% of total) are visitors to Oklahoma
- Commercial airports assisted with online/visitor intercept surveys
- Surveys provided information on trip purpose, length of stay, spending by category (lodging, food, ground transportation, entertainment, retail, other)
- Average spending by visitor trip estimated for each commercial airport



Example of Direct Impacts from Annual Commercial Visitor Aviation Spending

ANNUAL SPENDING → **EMPLOYMENT** → **ANNUAL PAYROLL**

- 100,000 enplanement x 40% visitor = 40,000 annual commercial visitors
- 40,000 visitor x \$500 spending per visitor trip = \$20,000,000 Direct Commercial Visitor Spending
- IMPLAN model used to convert Direct Spending to Direct Employment and Direct Payroll
- \$83,000 in Direct Spending supports 1 job; \$20,000,000 divided by \$83,000 = 240 Direct jobs
- IMPLAN shows \$28,000 in payroll per job supported; \$28,000 x 240 = \$6,720,000 Direct Payroll

Direct Employment	Direct Payroll	Direct Spending	Direct Economic Activity
240	\$6,720,000	\$20,000,000	\$26,720,000

Direct Impacts for OAC Study

ANNUAL DIRECT PAYROLL + ANNUAL DIRECT SPENDING = ANNUAL ECONOMIC ACTIVITY

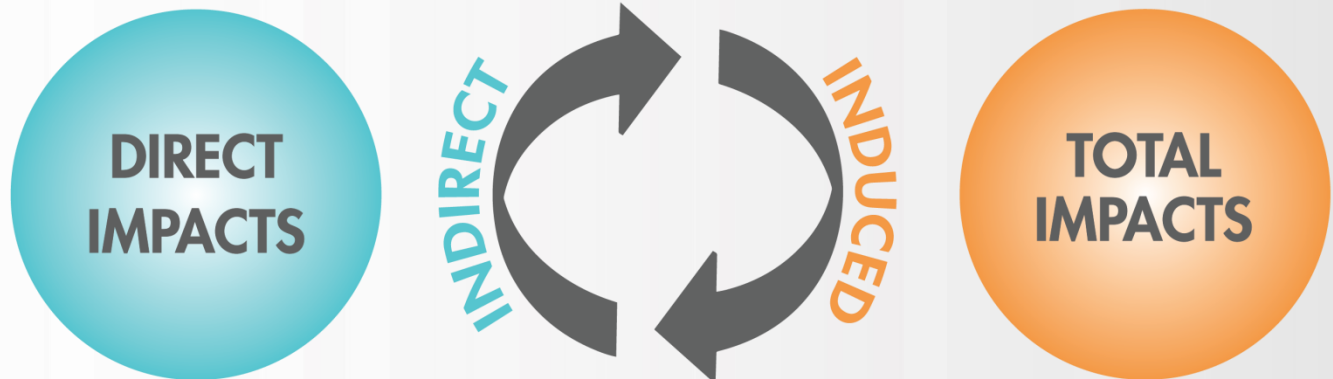
	Employment	Payroll	Spending	Economic Activity
Airport Management	Airport Management: Supplied by study airports			
Airport Tenants	Airport Tenants: Supplied by On-airport businesses			
CIP Spending	CIP Spending: IMPLAN used to convert direct spending to employment/payroll			
GA Visitor Spending	GA Visitor Spending: IMPLAN used to convert direct spending to employment/payroll			
Commercial Visitor Spending	Commercial Visitor Spending: IMPLAN used to convert direct spending to employment/payroll			



Estimating Indirect/Induced and Total Annual Economic Impacts

Translating Direct Impacts to Total Annual Economic Impacts

MULTIPLIER IMPACTS



IMPLAN MODEL

- Indirect impacts most often associated with the industrial, distribution, professional services, or utility sectors.
- Induced impacts most often associated with the retail and service sectors.

Example of Direct Impacts Creating Indirect/Induced Impacts



Information on the IMPLAN Model

- IMPLAN is acronym for Impact analysis for Planning
- Model developed more than 35 years ago/approved by FAA for economic impact analysis
- Data in the IMPLAN model is the most current among all similar models and is continually updated
- Model used in this analysis was specific to Oklahoma and each county
- Modeling for OAC study provided by Oklahoma Department of Commerce



IMPLAN's Use in OAC Study

- Used to convert Direct CIP and Visitor Spending into Direct Employment and Payroll
- Measured all Indirect/Induced (multiplier) Impacts
- Different model entries needed for Direct employment, payroll, and spending impacts and for each of the 5 impact “buckets”
- There is “no one size fits all” multiplier
- IMPLAN shows how Direct Impacts multiply creating Indirect/Induced Impacts
- Direct + Indirect + Induced = Total Annual Economic Impacts

Example of Total Annual Economic Impact for Airport Management

	Employment	Payroll	Spending	Economic Activity
Direct	4	\$140,000	\$60,000	\$200,000
Indirect/ Induced	3.5	\$113,400	\$45,000	\$158,400
Implied Multiplier	1.89	1.81	1.75	1.79
Total	7.5	\$253,400	\$105,000	\$358,400

TOTAL IMPACTS



DIRECT IMPACTS



**“IMPLIED”
MULTIPLIER**



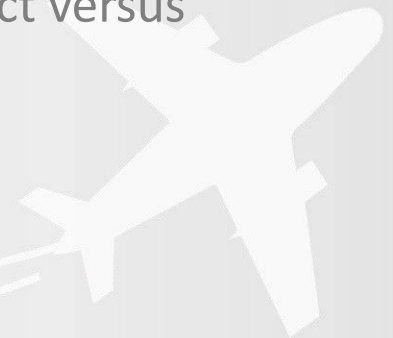
Example of Total Annual Economic Impact for CIP Spending

	Employment	Payroll	Spending	Economic Activity
Direct	4	\$220,000	\$390,000	\$610,000
Indirect/ Induced	4.4	\$286,000	\$585,000	\$871,000
Implied Multiplier	2.1	2.3	2.5	2.4
Total	8.4	\$506,000	\$975,000	\$1,481,000



Understanding Study Results

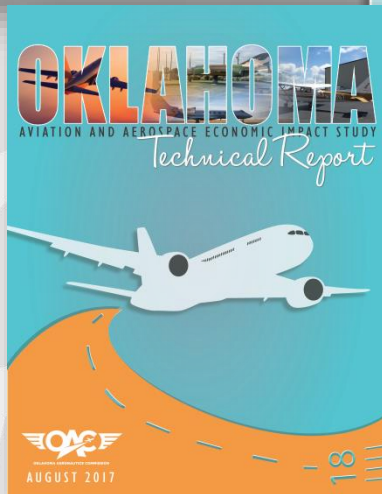
- Modeling completed for employment, payroll, spending, and economic activity for 5 impact categories
- Airport's total impact is a sum of impacts from management, tenants, CIP spending, and air visitor spending
- Focus on accurate estimates for Direct Impacts; accurate Direct Impacts ensure that final impacts are reasonable
- Conservative approach to estimate indirect/induced (multiplier) impacts
- Results are “unbundled”; helps explain where their impacts come from and shows what portion the impacts are Direct versus Indirect/Induced Impacts (multiplier)



Products Available to Communicate Funding Findings Statewide/Airport Specific



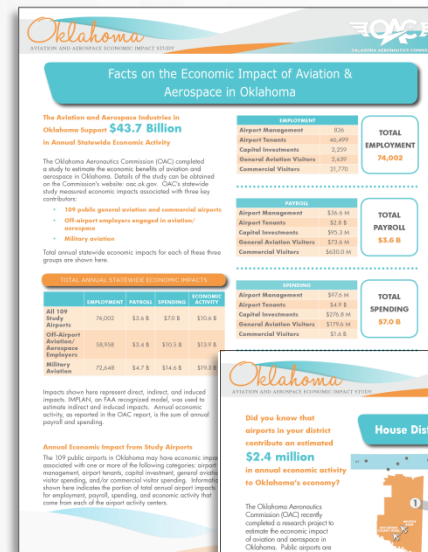
Executive Summary



Individual Report



Technical Report



Fact Sheet



Legislative Report

We Need Your Help...Be a Champion for Study Results/Develop a Communications Plan

- Formulate a message
- Identify various audiences to target
- Use existing venues/social media
- Develop/use an airport website to communicate
- Rely on newsletters/other media to communicate
- Develop/distribute a study related press release



Understanding Your Airport's Annual Economic Impacts



Now I get it!

- Methodology Guide provides high level overview of process and approach to estimate economic impacts
- Process, in reality, is far more complex
- Important for airports to have basic understanding so they can explain and champion study results

Questions?

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