

MEETING #1

# Project Advisory Committee (PAC)

October 30, 2018

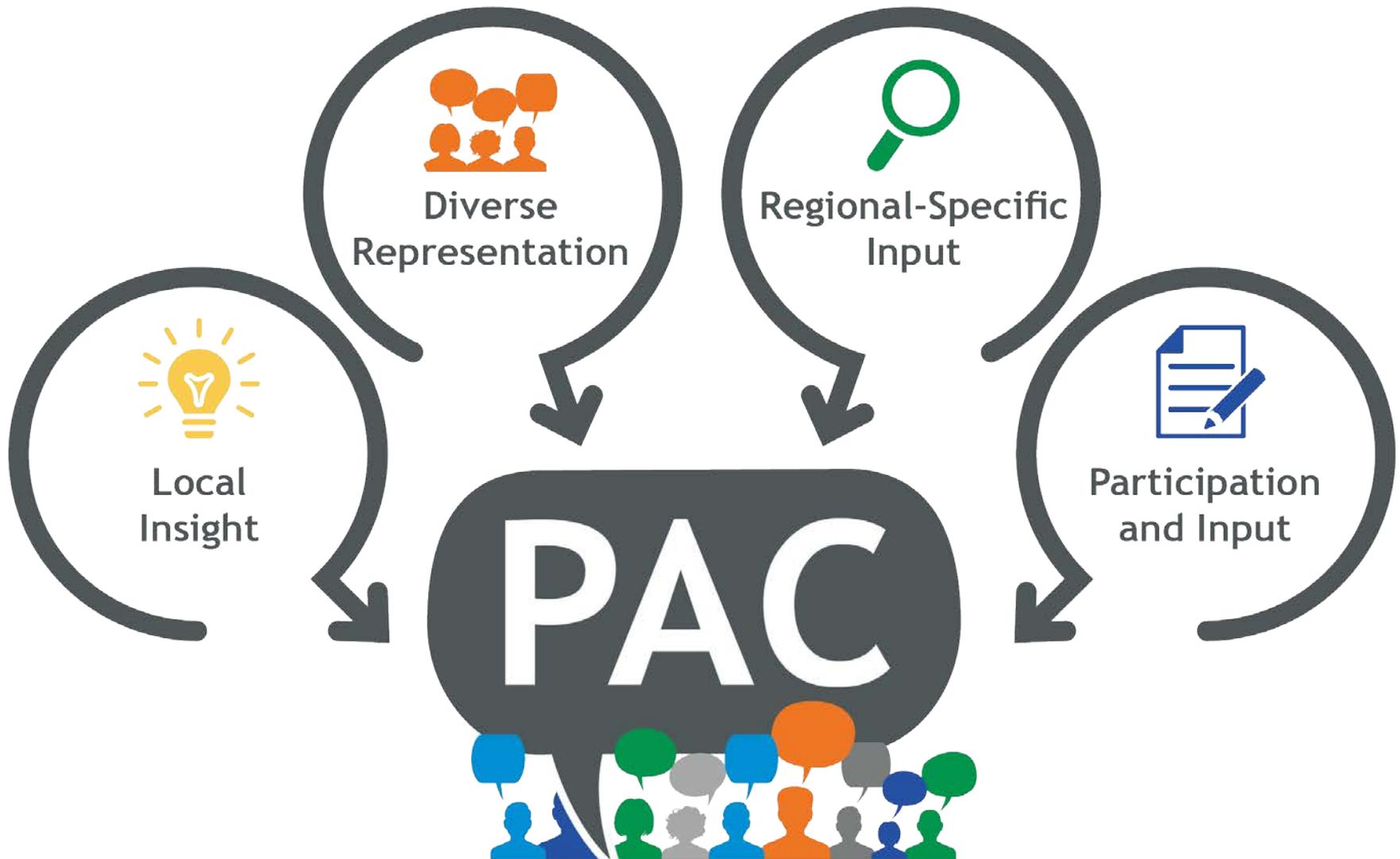


# Agenda

- Purpose and Role of the PAC
- 2018 Colorado System Plans
  - Colorado Aviation System Plan (CASP)
  - Colorado Economic Impact Study (CEIS)
- CASP Goals, Performance Measures (PMs), and System Indicators (SIs)
- Inventory Effort
- CEIS Approach
- Current Trends and Issues
- Project Status
- Next Steps



# Purpose and Role of the PAC



# Additional Study Input

- [Project website](#)
- Emergency service provider meetings
- Stakeholder calls
- Regional Planning Organization (RPO) meetings
- CDOT Modal Manager meetings

[coloradoaviationsystem.com](http://coloradoaviationsystem.com)

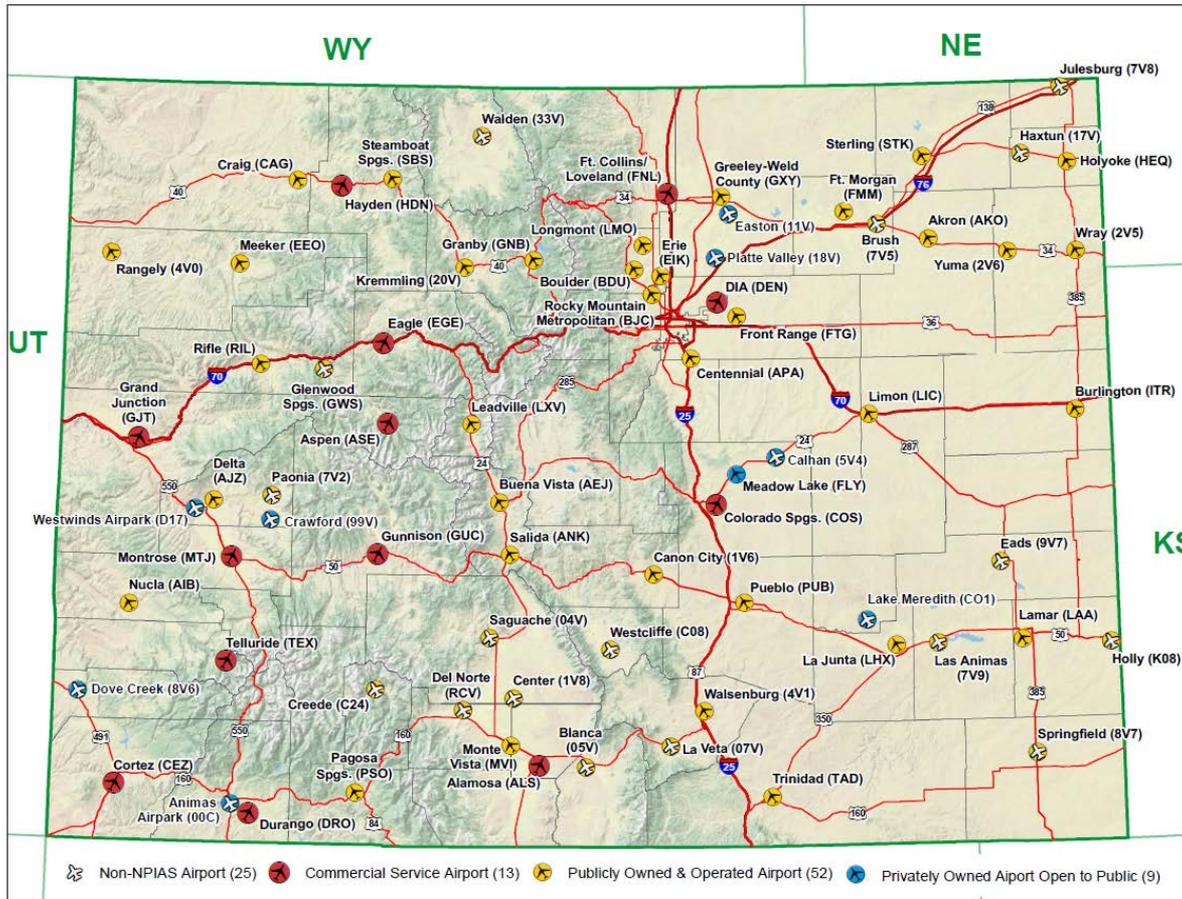




# 2018 Colorado System Plans

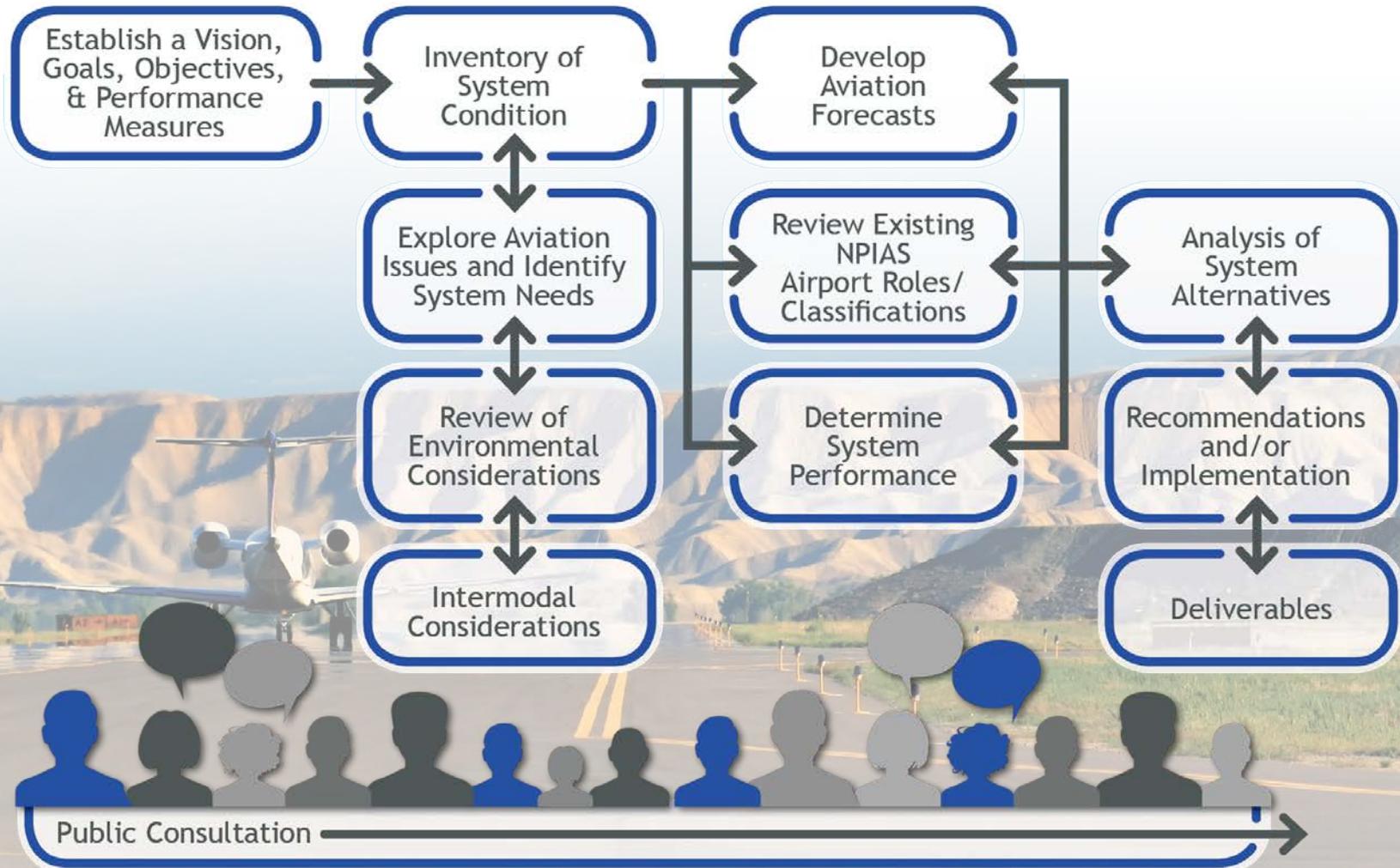


# Purpose of an Aviation System Plan

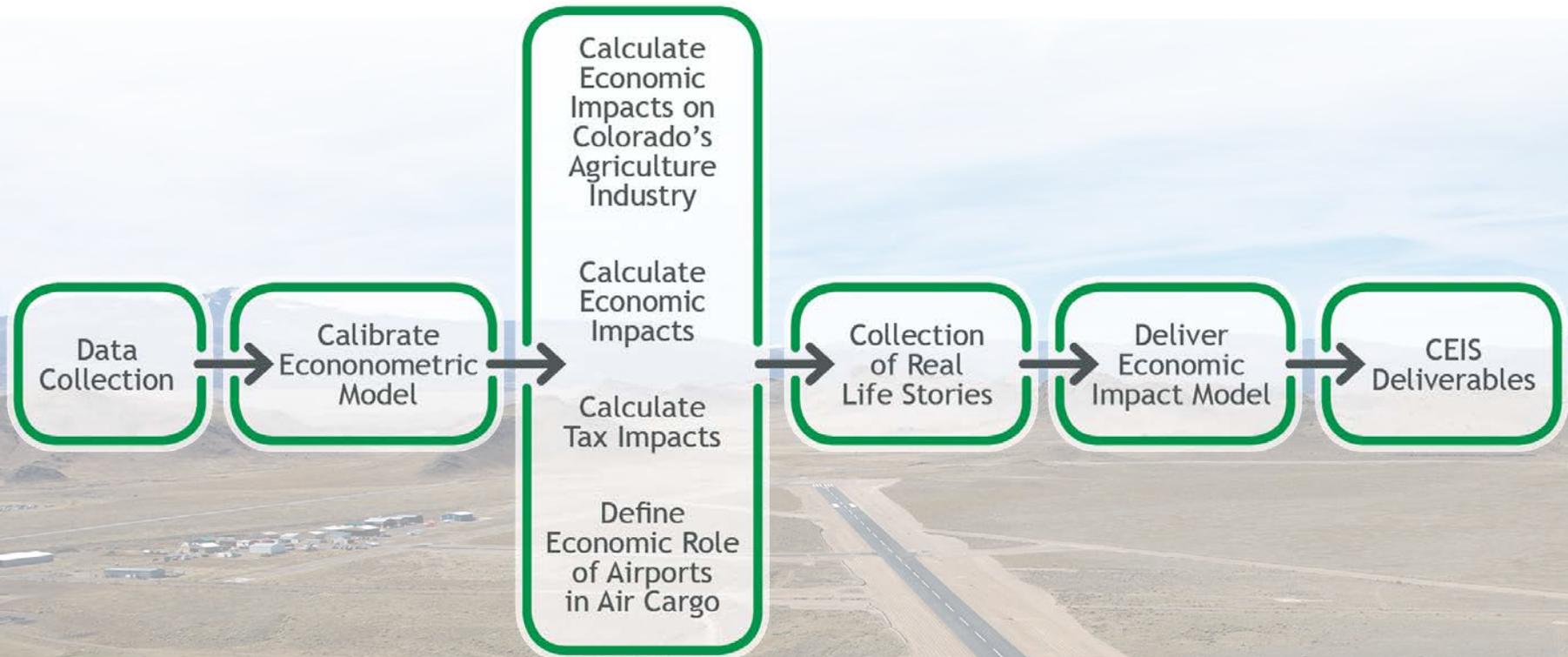


To provide a framework for the **integrated planning, operation, and development** of Colorado's aviation assets

# CASP Process



# CEIS Process



# CASP and CEIS Deliverables



Task No.	Task Name	2018				2019							2020								
		S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
CASP Technical Task	1 Scoping - Study Design																				
	2 Project Management and Consultant Team Coordination																				
	3 Public Consultation and Project Advisory Committee (PAC)																				
	4 Establish Study Design and Goals																				
	5 Inventory of System Condition																				
	6 Review Existing NPIAS Airport Roles/Classifications																				
	7 System Performance																				
	8 Develop Aviation Forecasts																				
	9 Explore Aviation Issues and Identify System Needs																				
	10 Review of Intermodal Integration and Airport Access																				
	11 Review of Environmental Considerations																				
	12 Analysis of System Alternatives																				
	13 Develop System-Wide Cost Estimate and Implementation Plan																				
	14 Data Management, Evaluation, and Reporting - Non-Federal																				
	15 Include Real Life Stories Part I - Non-Federal																				
	16 Deliverables																				
CEIS Technical Task	1 Data Collection																				
	2 Calibrate Econometric Model																				
	3 Calculate Impacts																				
	4 Calculate Tax Impacts																				
	5 Define Economic Role of Airports in Air Cargo																				
	6 Calculate Economic Impacts on Colorado's Agriculture Industry																				
	7 Include Real Life Stories - Part 2																				
	8 Deliver an Economic Impact Model to Enable CDOT to Conduct Simple Updates to Estimate Impacts of Future Scenarios																				
	9 Economic Impacts of Denver International Airport																				
	10 Documentation																				
	11 Project Management and Reporting																				
	12 Economic Impacts of Denver Update																				

WE ARE HERE

TBD

TBD

■ Work Ongoing  
   Task Requires Extension  
   Work Not Started  
 ◆ Chapter  
 ◇ White Paper/Content to be Included in Chapter  
 ● Technical Memorandum  
 ○ Meeting/Webinar



# CASP Goals, Performance Measures, and System Indicators

# System Evaluation







# Safety and Efficiency

Performance Measures and System Indicators		Relevancy
Performance Measures	Percent of airports without close in obstructions	Promotes the safety of pilots, passengers, and public in and around the airport environs
	Percent of airports with the level of activities to warrant an Air Traffic Control Tower (ATCT)	
	Percent of airports with adequate crosswind coverage	
System Indicators	Percent of airports that have adopted appropriate land use controls	Promotes the safety of pilots, passengers, and public in and around the airport environs
	Percent of airports that meet FAA design standards	
	Percent of airports that have a formalized program for receiving, managing, and responding to on/near airport UAS use requests	
	Percent of airports with a Wildlife Hazard Assessment (WHA) that have full perimeter wildlife fencing	Provides critical ground-based services to people and aircraft in emergency situations
	Percent of communities with emergency responders that have basic training in Aircraft Rescue and Fire Fighting (ARFF)	
Percent of airports that support aerial firefighting	Supports critical rapid-response aerial firefighting activities across the state	



# PM and SI Activity



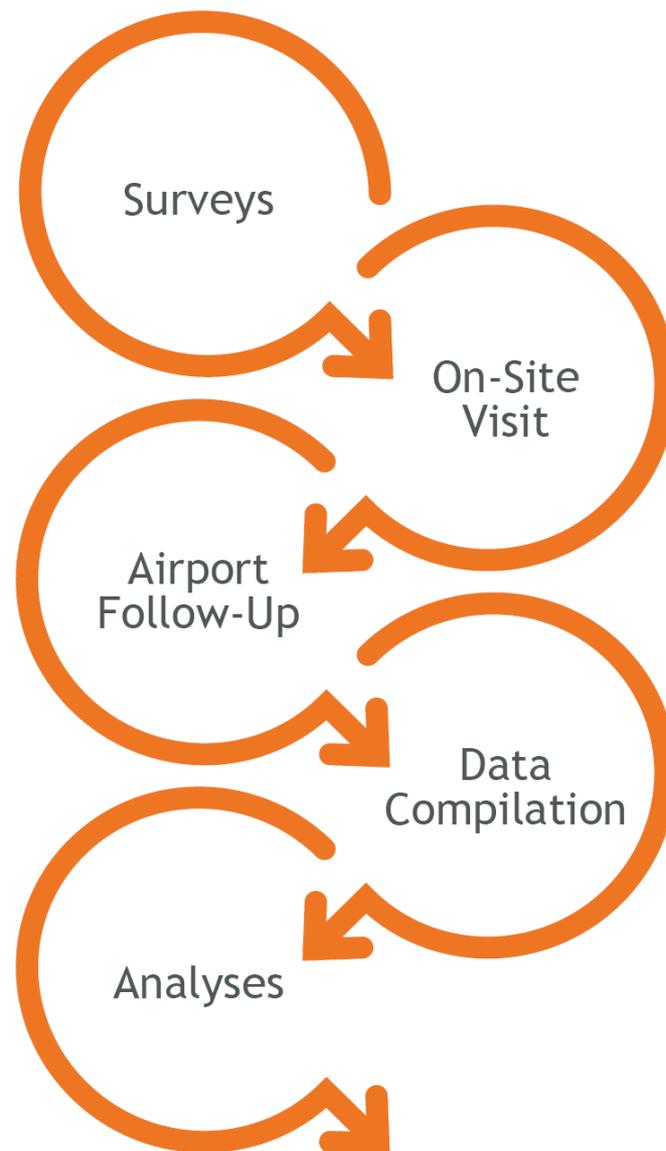
Break



# Inventory Effort

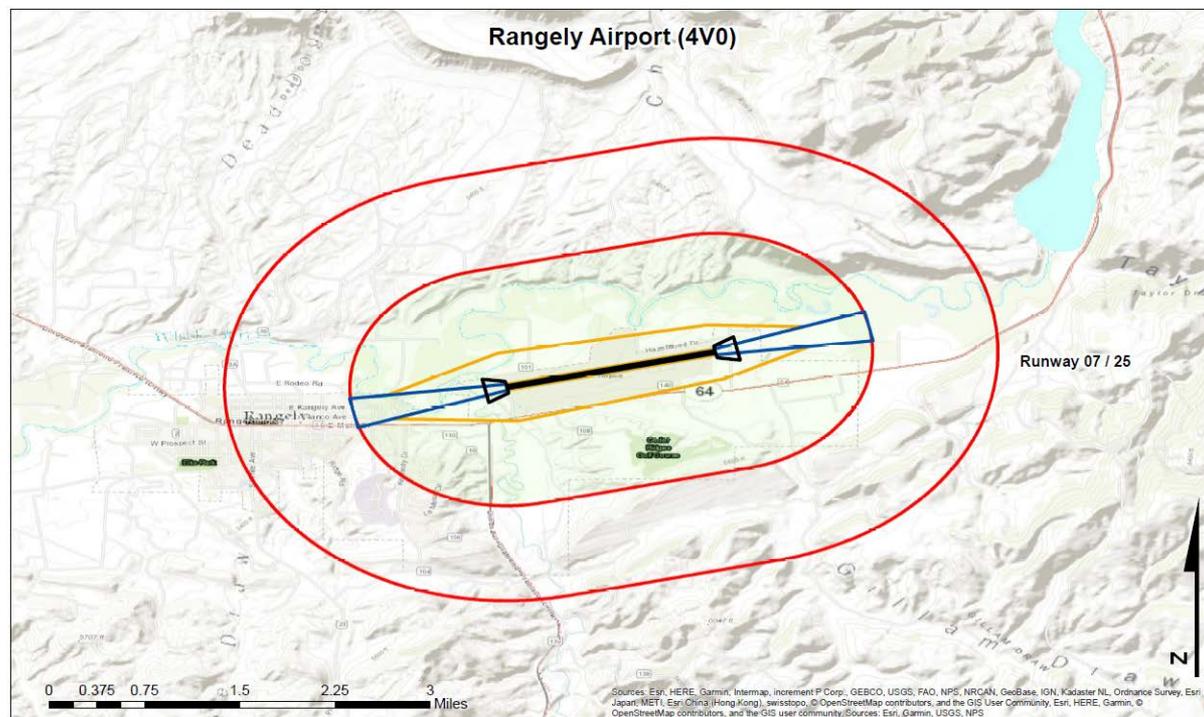
# Inventory Process

- Gather data to evaluate system performance, develop forecasts of aviation activity, and identify system needs
- Primary foundation for all subsequent analyses



# Inventory Includes...

- Airside/Landside Facilities
- Airport Services
- Airport Activity
- Mobility and Access
- Airport Safety
- Environmental and Land Use Compatibility
- Economic Impact



# Data Collection Efforts and Timing

- Data Collection is Extensive
- Scheduled November to February
- Airport Manager Survey (Nov-Jan)
  - On-site visits to 65 airports
- CEIS Surveys (Nov-Feb)
  - Commercial passenger surveys (Jan)



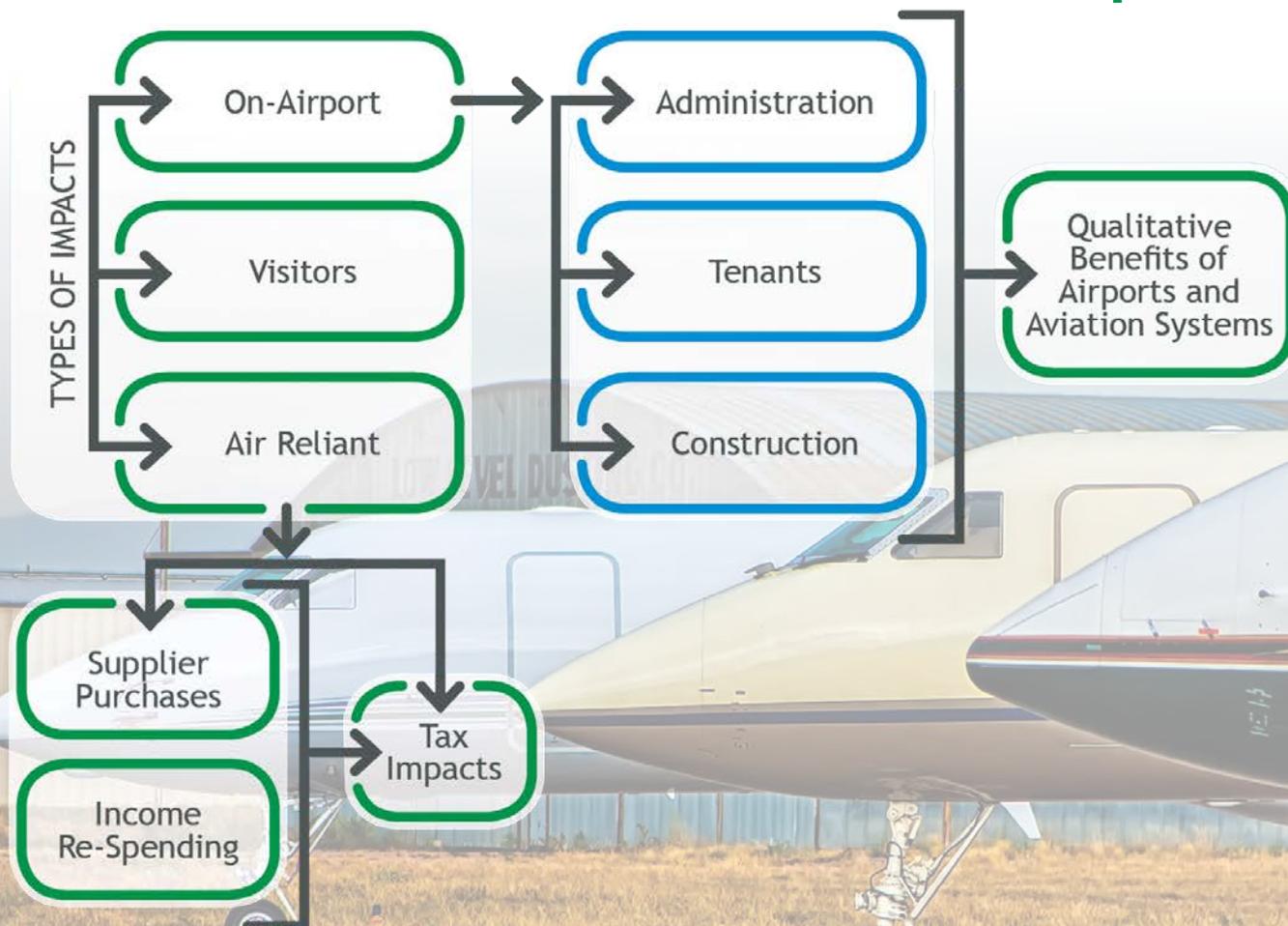
# CEIS Approach

# What is an Airport Economic Impact Study?

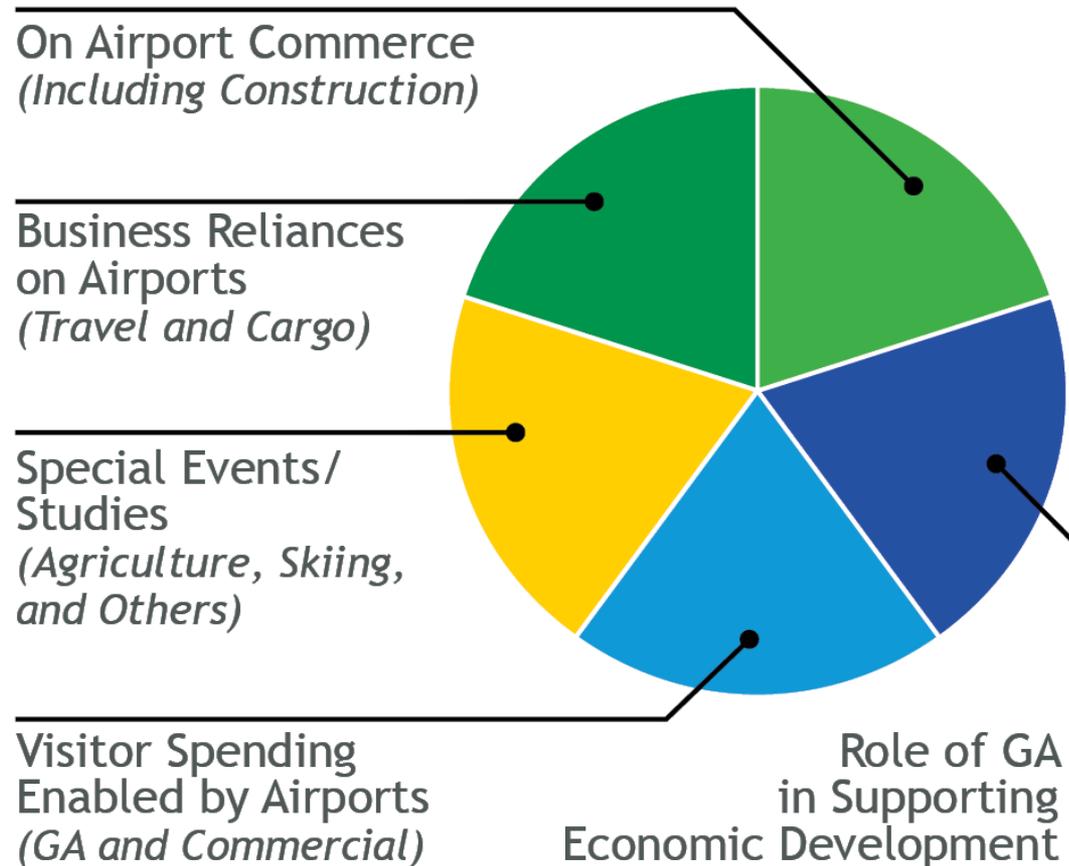
Conveys the economic importance of airports and how airports generate benefits for Colorado citizens



# Overview of Economic Impacts



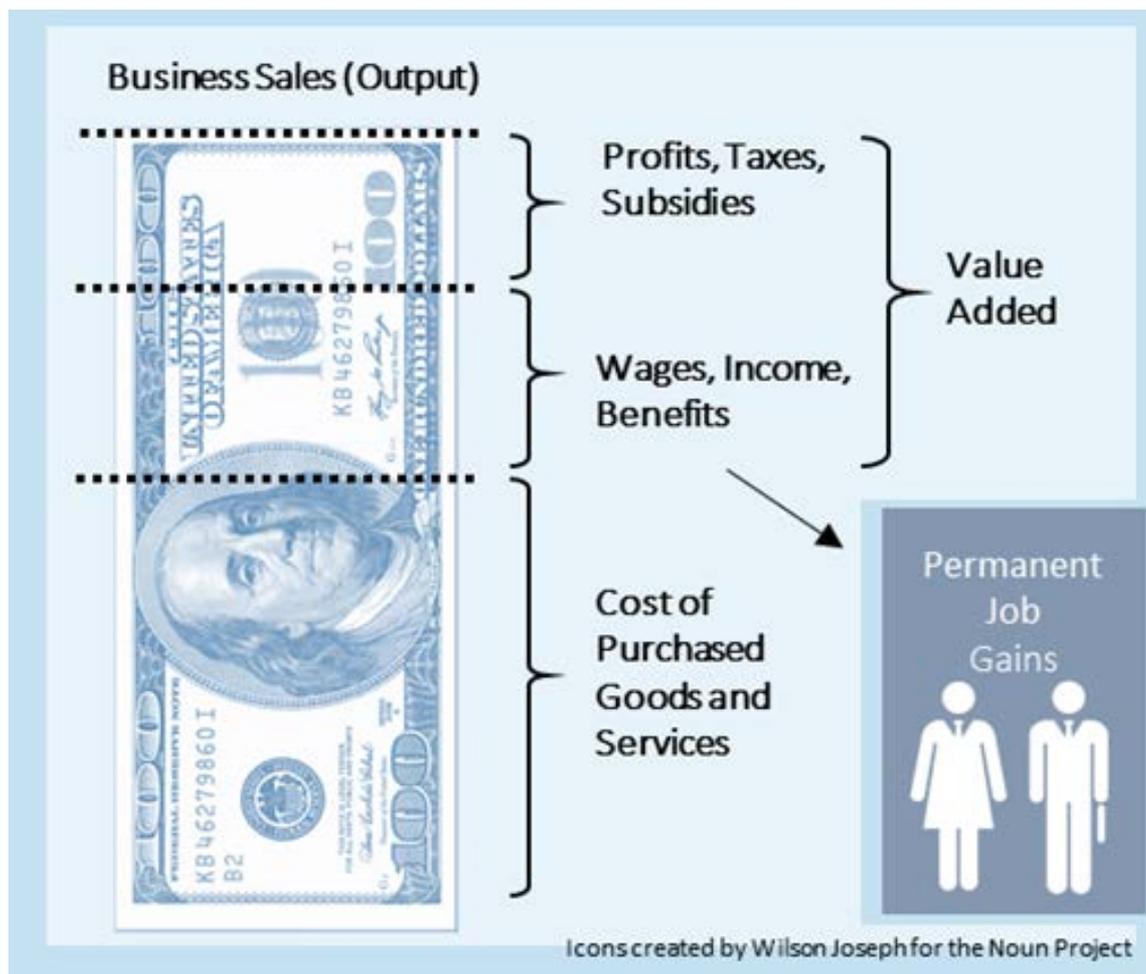
# Documenting Elements



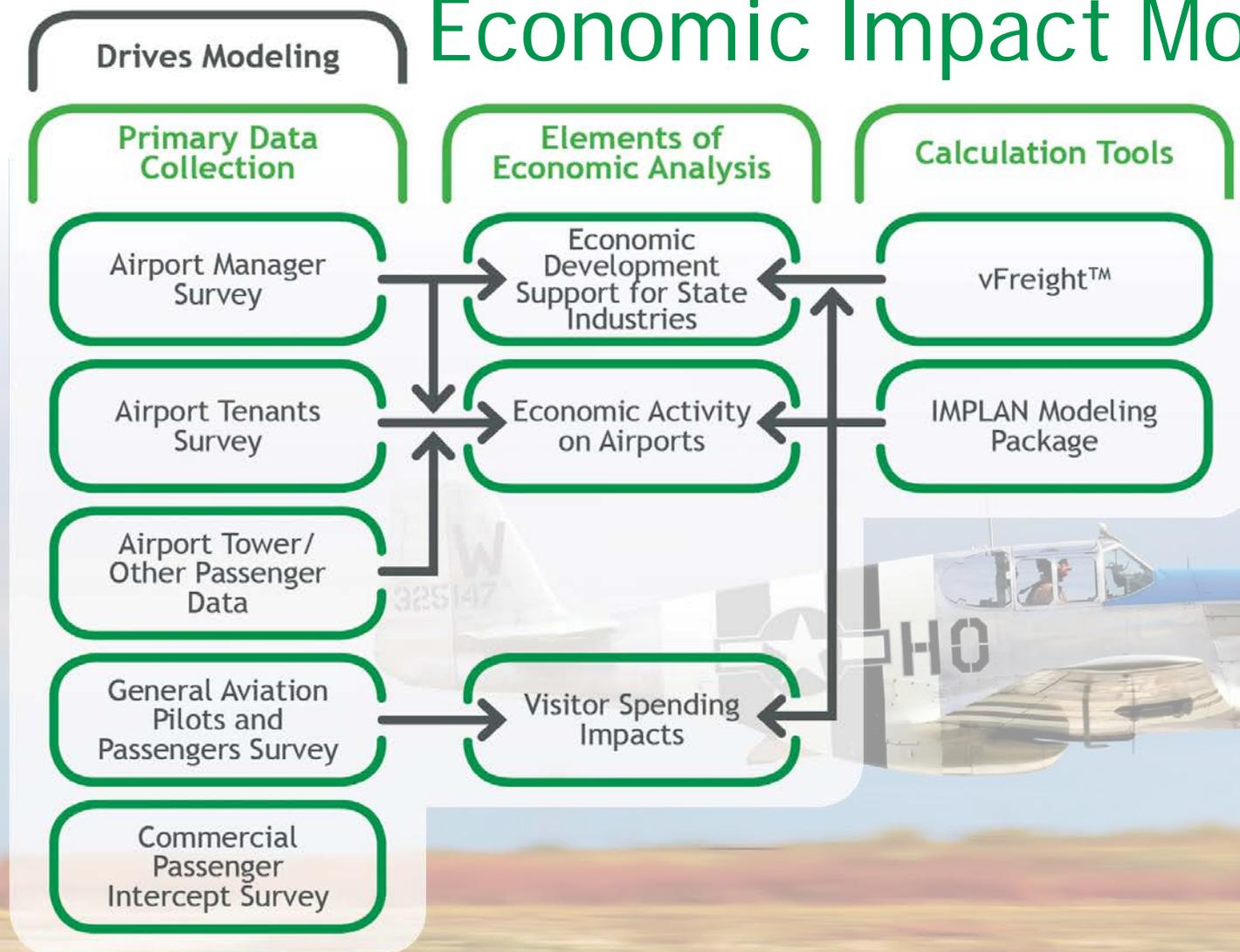
# CEIS Surveys

- Airport Manager
- Airport Tenant
- Air Carrier Passenger
- Fixed Based Operator (FBO)
- GA Pilots/Visitors
- Businesses That Own/Lease Aircraft
- Businesses That Rely on Colorado Airports

# Dollars and Jobs



# Economic Impact Modeling



# Two Uses of IMPLAN Model

## Calculate Missing Direct Impacts

Data Availability Situation	Jobs	Labor Income	Revenue
Option 1	X	●	●
Option 2	X	X	●
Option 3	●	●	X
Option 4	X	X	X

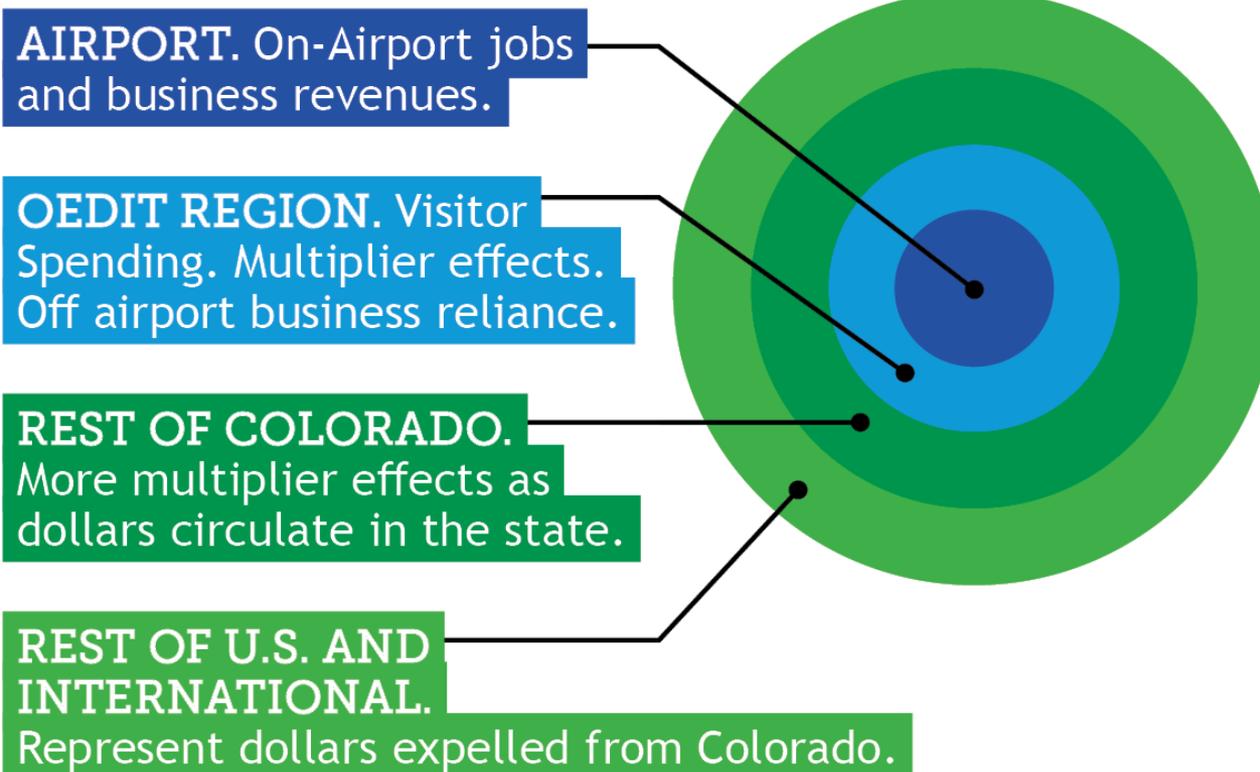
X = Data Directly Available

● = Data Input Based on IMPLAN Ratios

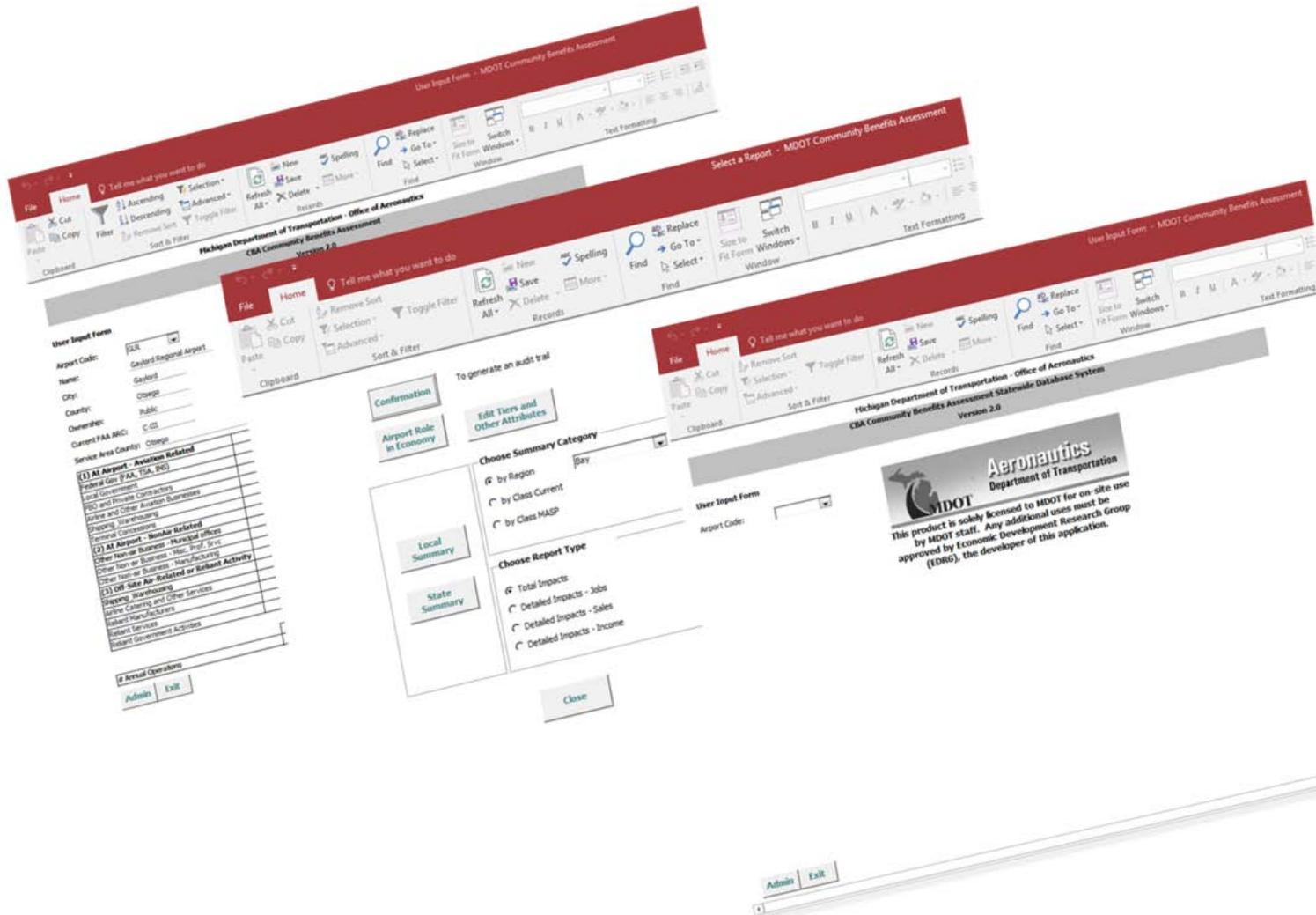
## Calculate Multiplier Effects

Effect	Jobs		Payroll		Business Activity	
	Regional	State	Regional	State	Regional	State
Direct Effects of On-Airport Activities and Visitor Spending						
1. On-Airport (incl. FBO and air related tenants and CIP)						
2. Total Off-Airport Visitor Spending						
<b>Subtotal</b>						
Spin-off Effects: Supplier Purchases and Income Re-spending						
3. Due to On-Airport Aviation						
4. Due to Visitor Spending						
<b>Subtotal</b>						
<b>Total Airport/Aviation-Related Impacts</b>						

# Distribution of Impacts



# Economic Impact Calculator



# Detailed Analysis of DEN

**Economic Impact Model for Pittsburgh International Airport**  
Prepared by Economic Development Research Group  
For the Allegheny County Airport Authority

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You can estimate the economic impacts of PIT on the 10 County SouthWestern Pennsylvania Area (SWPA) by changing aircraft activity, passenger volume, domestic and international cargo volume, passenger mix, visitor spending, and on-airport consulting and construction expenditures. Factors held constant from the 2016 study include wages, output, and indirect and induced and multiplier effects.

Input Tabs include Aviation Activity, Visitors and Overse to change on-airport jobs. Green colored cells allow users to change values, but Blue shaded cells should not be changed.

To get started, enter the Record Keeping Information below, then go to the Aviation Activity tab.

Pittsburgh International Airport  
Pittsburgh, PA  
Scenario Name PIT 2016  
Report Date: 12-Feb-18

## I. PASSENGERS AND OPERATIONS

Carrier Type	Annual Operations	Passengers per Operation by Aircraft
Domestic Carrier	117,237	68
International Carrier	3,014	52
General Aviation (Transient)	13,442	6
Charter	300	60
Military	N/A	N/A

## II. CARGO AND OPERATIONS - outgoing cargo

Carrier Type	Air Cargo Annual Operations	Weight by Pounds ON Aircraft
Domestic Carrier	117,237	39
International Carrier	3,014	0
Domestic All-cargo	4,472	27,835
International All-cargo	2	72,752

Scenario Name **PIT 2016**

Pittsburgh International Airport  
Pittsburgh, PA  
Scenario Name PIT 2016  
Report Date: 12-Feb-18

## Summary Report

Pittsburgh International Airport Pittsburgh, PA		Airport Generated	Visitor Spending	Related Jobs	Total Impact
<b>IMPACTS</b>					
<b>JOBS</b>	DIRECT	9,865	10,981	1,719	22,566
	INDIRECT	3,178	1,724	1,238	6,140
	INDUCED	4,339	2,137	1,537	8,013
<b>TOTAL JOBS</b>		<b>17,383</b>	<b>14,842</b>	<b>4,494</b>	<b>36,719</b>
<b>BUSINESS REVENUE (DIRECT</b>		\$1,738	\$779	\$691	\$3,208
	INDIRECT	\$462	\$286	\$242	\$990
	INDUCED	\$640	\$294	\$206	\$1,140
<b>TOTAL BUSINESS REVENUE</b>		<b>\$2,840</b>	<b>\$1,359</b>	<b>\$1,139</b>	<b>\$5,338</b>
<b>LABOR INCOME (\$MIL DIRECT</b>		\$565	\$324	\$148	\$1,037
	INDIRECT	\$201	\$106	\$92	\$399
	INDUCED	\$238	\$106	\$76	\$419
<b>TOTAL LABOR INCOME</b>		<b>\$1,004</b>	<b>\$536</b>	<b>\$316</b>	<b>\$1,856</b>
<b>AVG LABOR INCOME/EMPLOYEE (\$/YR)</b>					
	DIRECT	\$57,222	\$29,518	\$86,331	\$45,958
	INDIRECT	\$63,327	\$61,406	\$74,579	\$65,056
	INDUCED	\$54,828	\$49,489	\$49,283	\$52,341
<b>AVG INCOME/EMPL</b>		<b>\$57,740</b>	<b>\$36,098</b>	<b>\$70,425</b>	<b>\$50,545</b>

## I. PASSENGER TRIP PURPOSE AND VISITOR PROFILE

	% Connecting		% O/D		Total	% Visitors	% Outside SWPA
	Business	Personal	Business	Personal			
Dom Carrier	3%	1%	64%	32%	100%	41%	12%
International Carrier	3%	1%	63%	33%	100%	41%	12%

## Airport Spending per Visit

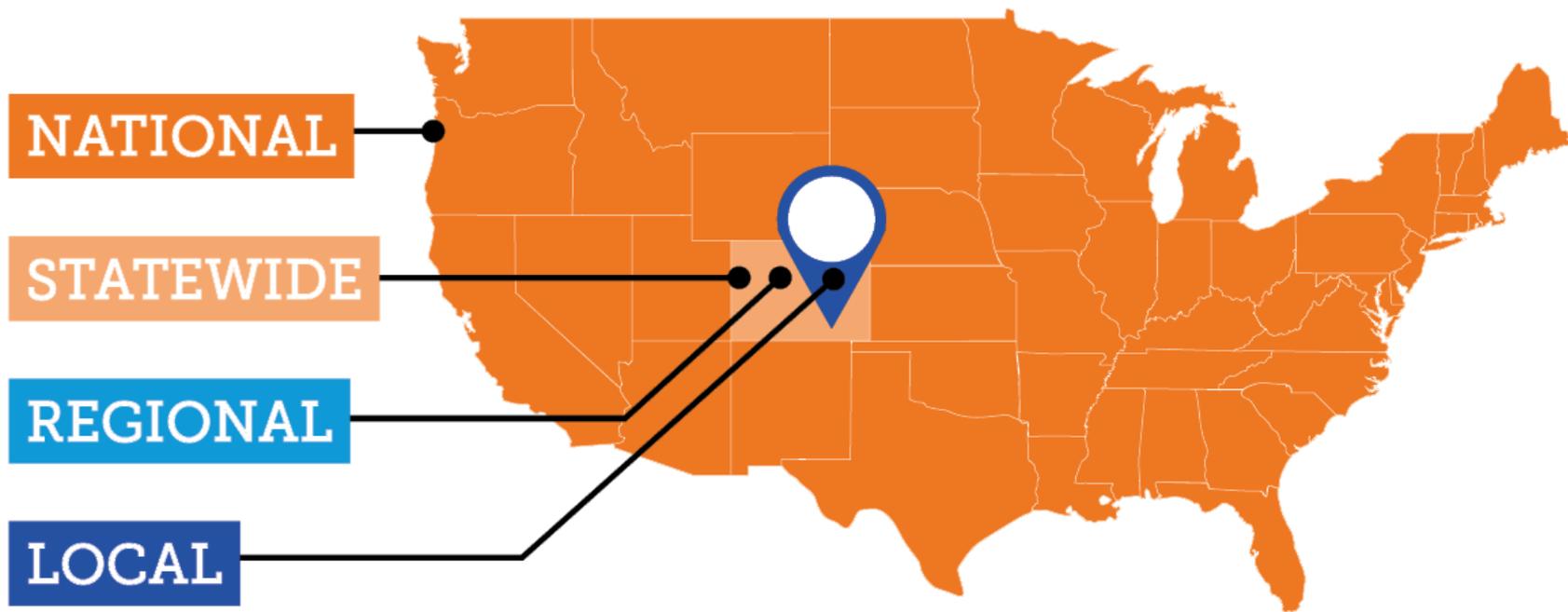
Aircraft Type	Off-Airport Spending Per Visit				G.A.	Charter
	Domestic Business	Domestic Personal	International Business	International Personal		
Accommodations	\$301	\$126	\$507	\$209	\$99	\$330
Entertainment	\$15	\$42	\$10	\$103	\$3	\$91
Rental Car	\$20	\$7	\$2	\$14	\$55	\$0
Transportation	\$0	\$0	\$0	\$1	\$0	\$91
Food & Beverage	\$160	\$156	\$216	\$247	\$22	\$175
Retail	\$19	\$80	\$109	\$421	\$3	\$0
<b>Total per Trip</b>	<b>\$514</b>	<b>\$402</b>	<b>\$916</b>	<b>\$1,002</b>	<b>\$183</b>	<b>\$667</b>

	Domestic Business	Domestic Personal	International Business	International Personal	G.A.	Charter
\$000	\$7,848,000	\$316	\$17,473,000	\$48,881,000	\$98	\$72,918,000
\$000	\$35,530,000	238	\$13,257,000	\$35,558,000	916	\$57,305,000
\$000	\$0	0	\$0	\$0	0	\$0
\$000	\$4,351,000	34	\$1,873,000	\$5,023,000	234	\$8,014,000
\$000	\$0	0	\$0	\$0	0	\$0
\$000	\$755,000	6	\$312,000	\$837,000	19	\$1,350,000
\$000	\$0	0	\$0	\$0	0	\$0
\$000	\$439,000	3	\$190,000	\$509,000	16	\$895,000
\$000	\$7,372,000	53	\$3,507,000	\$9,405,000	50	\$15,291,000
\$000	\$2,258,000	21	\$1,157,000	\$3,104,000	95	\$4,878,000
\$000	\$7,186,000	60	\$3,305,000	\$8,885,000	369	\$13,901,000
\$000	\$426,000	8	\$450,000	\$1,207,000	46	\$1,840,000
\$000	\$6,436,000	52	\$2,867,000	\$7,691,000	256	\$11,970,000
\$000	\$1,135,000	48	\$2,676,000	\$7,177,000	153	\$11,411,000
\$000	\$0	0	\$0	\$0	4,372	\$167,235,000
\$000	\$33,545,000	587	\$13,545,000	\$55,403,000	1,551	\$95,394,000
\$000	\$8,912,000	56	\$9,186,000	\$9,186,000	398	\$16,716,000
\$000	\$23,305,000	245	\$16,693,000	\$38,343,000	1,056	\$53,146,000
\$000	\$1,381,000	9	\$606,000	\$1,423,000	60	\$2,545,000
\$000	\$4,955,000	32	\$2,205,000	\$5,181,000	219	\$9,255,000
\$000	\$5,029,000	32	\$2,238,000	\$5,258,000	223	\$9,494,000
\$000	\$649,000	4	\$289,000	\$679,000	29	\$1,214,000
\$000	\$553,380,000	9,703	\$553,380,000	\$1,712,238,000	3,113	\$197,400,000
\$000	\$11,132,000	182	\$3,863,000	\$10,454,000	77	\$3,886,000
\$000	\$564,512,000	9,865	\$564,512,000	\$1,737,952,000	3,178	\$201,263,000
\$000	\$23,040,000	426	\$23,040,000	\$629,111,000	17,080	\$984,820,000
\$000	\$18,881,000	303	\$18,881,000	\$45,845,000	17,383	\$1,003,701,000
\$000	\$27,926,000	4,339	\$27,926,000	\$636,789,000	17,383	\$2,838,959,000



# Current Trends and Issues

# Issues & Trends



# Issues and Trends Word Bank

- NextGen
- Land Ownership
- Political Climate
- UAS
- Access
- Pilot Shortage
- Encroachment
- Noise
- Changing GA Landscape
- Autonomous Vehicles
- Sustainability
- Geography
- Electric Aircraft
- Inter-Agency Partnerships
- Funding

# Issues & Trends

- What's impacting aviation in Colorado:
  - Now?
  - In a year?
  - In 5 years?
  - 10+ years?

\_\_\_\_\_ is impacting aviation in Colorado.

**SHOUT IT OUT!**



# Trends Activity

# Level of Impact Activity

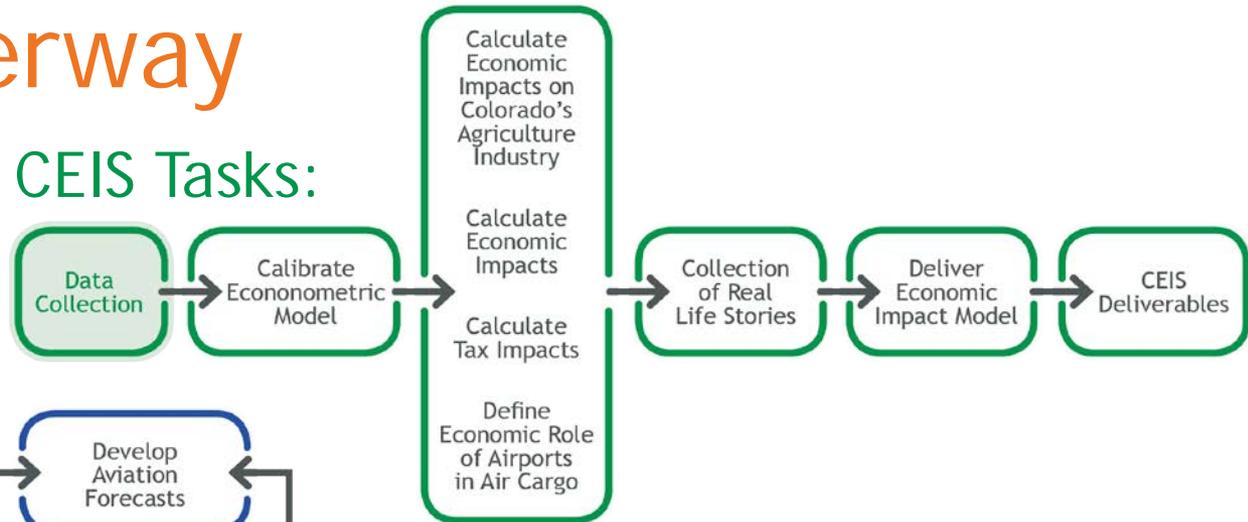




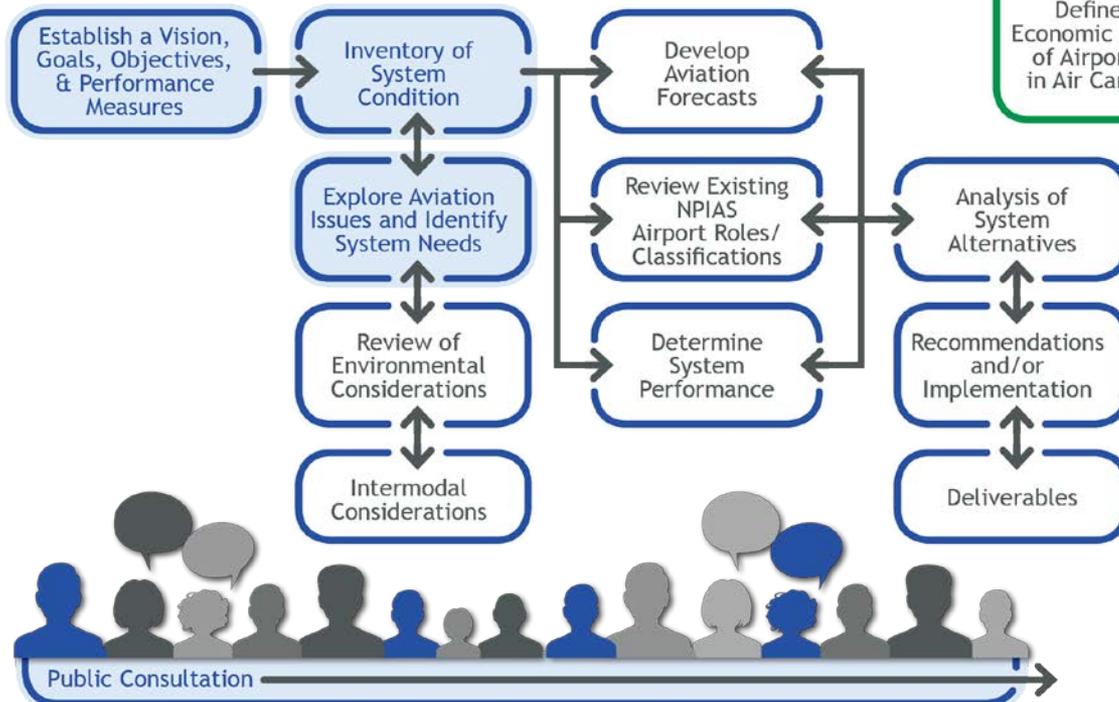
# Project Status

# Tasks Underway

## CEIS Tasks:



## CASP Tasks:





# Next Steps

## Next Steps

- Incorporate PAC feedback
- Airport on-site visits
- CEIS surveys
- Draft goals chapter



# Questions?

Thank you for your participation!

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