WSDOT Aviation Division
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The Economic Value Airports Create
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What is This Study Trying to Measure?

Two questions guide this analysis of economic value:

1) **How does the system generate value** for individuals and entities that operate in the state?
   - Airports enable a range of activities that are otherwise virtually impossible.
   - At the individual airport level, each airport’s existence and capabilities affect the competitiveness of the community it serves.

2) **How great might this value be?**
   - Measuring economic value is virtually impossible - this would require knowing what millions of users would ultimately be willing to pay for each transaction.
   - Using order-of-magnitude estimates, this study estimates value created by aviation-related activities in Washington in the **billions of dollars**.
Who Are the Users of Aviation in Washington?

The State’s 138 public use airports enable activities and create value for many users across the state. This study explores the following activities:

• **Moving People and Goods.** Commercial passenger service; business and corporate travel; personal transportation; air cargo; blood, tissue, and organ transportation.

• **Protecting People and Resources.** Medical air transport, search and rescue, firefighting, national security, emergency preparedness and disaster response.

• **Supporting Research.** Scientific research and aerial photography.

• **Supporting Industry.** Aircraft manufacturing and agriculture.

• **Flight Training and Education.** Pilot training and certification.

• **Flying for Recreation.** Skydiving and aerial sightseeing tours.
How Does This Study Estimate Value?

• This study looks at value from the **user perspective** - how does the individual derive value from using aviation?

• This study estimates value by exploring three questions about each of the core activities:
  - How extensive is the activity in question, or how many transactions occur each year?
  - What cost do users actually pay?
  - Beyond actual cost paid, how can we think about the total value being created?

• The following slides explore the creation of economic value using a few selected example activities.
Example Activity: Commercial Passenger Service

Definition
Scheduled passenger flights operated by commercial airlines.

Level of Activity in Washington

- 16 Washington airports have scheduled commercial passenger service.
  - 5 additional airports have charter commercial services.
- 16.6 million scheduled commercial passenger enplanements in Washington in 2010.
  - Sea-Tac and Spokane account for 95% of statewide commercial passenger traffic.
Example Activity: Commercial Passenger Service

How is Value Created?
• Offers access to places, markets, and resources.
• Each user has a different reason for using commercial service, from business trips to personal vacations.

How Much Value is Created?
• At an estimated cost of $260 per round-trip, users paid about $8.6 billion for commercial passenger service in Washington in 2010.
• A trip generates value for users in different ways and at different levels depending on the trip’s purpose:
  ▪ Some trips generate little value: a person taking a $99 weekend getaway may have stayed home if the price were any higher.
  ▪ Some trips generate significant value: a businessman flying to save a multi-million dollar deal would be willing to pay significantly more than face-value.
• Even if only 1,000 commercial trips per year are for multi-million dollar reasons, this activity generates value in the billions of dollars.
Example Activity: Medical Air Transport

Definition

Transporting a patient by air to receive specialized or emergency care at an adequate trauma facility.

Level of Activity in Washington

- Most transports are from rural areas to trauma centers in urban locations.
- More than 1,600 patients use medical air transport in Washington each year.

NOTE: Patients requiring specialized care need to be treated at a hospital ranked Level I or Level II on the acute care rating system.
Example Activity: Medical Air Transport

How is Value Created?

• Patients receive specialized care quickly and more effectively than if they were transported by ground.
• Reducing the time between injury and care improves outcomes and saves lives.
• Communities derive option value from having medical evacuation available. This may drive location decisions for businesses and families.

How Much Value is Created?

• Although these flights happen infrequently, significant value is created on every trip. The level of treatment within the first hour after a heart attack or head injury can save lives.
• Difficult to know the value of life or health - impacts are felt by family members and by whole communities.
• These flights are one of the biggest and most important sources of value creation at many rural airports.
Example Activity: Agriculture

Definition

- Aerial application of crop treatments to treat weeds, pests, insects, and fungal outbreaks.
- Aerial application of fertilizer or seed crops during planting.

Level of Activity in Washington

- About 25% of cropland nationwide is treated with aerial application each year.
- This equates to about 1.9 million of Washington’s 7.6 million total acres of cropland.
- 19 public use airports support aerial application, mostly in Eastern Washington.
Example Activity: Agriculture

How is Value Created?

- Aerial application protects crops by applying a prescription over an area more quickly than a ground rig.
- Creates option value for farmers who consider aerial application an important safety net.

How Much Value is Created?

- Aerial application and the airports that support it are an important piece of infrastructure supporting the agriculture industry.
- To a farmer, an aerial application could be worth a high percentage of an affected crop’s worth to avoid losing the crop entirely.
- Additional value is derived by farmers who don’t use aerial application in a given year, but value the “insurance” factor.
Value Creation is Different in Different Communities.

So far we have looked at value creation from the aggregate perspective - how much total value is created by Washington’s aviation system?

At the community level, the picture of value creation varies.

- At a large airport in a major city, major drivers of value creation might include:
  - Commercial passenger service.
  - Air cargo.
  - Business and corporate travel to national and international spheres.

- At a smaller rural airport, large contributors to value creation may come from a very different list of services. For example, the list may include:
  - Medical air transport.
  - Agriculture.
  - Firefighting.
  - Improved access for individuals or businesses with facilities in the community.
A Key Challenge: Recognizing Value Creation

• At a large airport in a major city, the buzz of activity makes it easy to sense that value is being created. However, it is still easy to underestimate the extraordinary levels of value creation that actually occur.

• At a small, relatively quiet airport, the challenge is even more pronounced.
  - Much of the value is created through a small number of high-value events that may be spread over a long period of time.
  - Even in the moment when they occur, infrequent, high-value events can look unremarkable to a casual observer.