

Executive Summary

The Washington State Department of Transportation (WSDOT) Aviation Division, with the support of the Federal Aviation Administration (FAA), has completed a study on the role aviation plays in Washington's economy. The Aviation Economic Impact Study provides a holistic picture of how Washington's public use airports contribute to the economy statewide and at the community level by:

- Measuring the economic and fiscal impacts of each of the state's 135 public use airports.
- Exploring how the aviation system supports economic development and competitiveness at the local and statewide levels.
- Building understanding of how the state's aviation system creates economic value for people and communities across the state.

The primary purpose of this study is to support a broad understanding of the role of the state's aviation system within the state economy among all relevant stakeholders, including demonstrating how the system contributes to the well-being of the state and how individual airports contribute to the well-being of the communities in which they operate. This is also an update of the economic impact analysis work conducted as part of the 2001 Aviation Forecast and Economic Analysis Study and builds on other recent WSDOT planning efforts related to the 2009 Washington Aviation System Plan (WASP) and Recommendations of the Washington State Aviation Planning Council, and the development of the Aviation Information System (AIS).

This study is designed to provide the Aviation Division with an important foundational document and to help the Division become the primary steward and advocate for protecting Washington State's aviation system interests. Achieving the Aviation System Plan policies will require a number of legislative actions, and the demonstrated economic value of the aviation system will be a central part of the rationale for gaining support for these policy steps. This study focuses on economic benefits associated with airports and does not consider potential costs or negative impacts associated with activity on or around airports. These potential costs or negative impacts should also be considered along with economic value when making public policy decisions affecting the aviation system.

Approach to Economic Analysis

Since airports and aviation services provide a wide range of economic benefits, this study approaches the assessment of economic contribution from three different perspectives to create a more comprehensive picture of aviation's economic value and impact in the state. This broad perspective is necessary to fully appreciate the state policy implications of a healthy and vibrant aviation system.

Airport-level economic impacts (Airport Perspective). This is the core of the analysis: identifying the traditional economic impacts—the jobs, wages, output, and spending—of the state’s 135 public use airports. These airport-level impacts address activity that can be directly associated with an airport, namely: businesses operating at the airport and the visitors traveling through the airport. From these direct impacts, multiplier effects are also evaluated, as wages and other spending are re-spent in the local economy. This analysis also includes a fiscal assessment of how these airport businesses and visitors affect local and state tax revenues.

Industry-level economic impacts (Industry Perspective). While the airport-level analysis focuses on activity that can be directly attributable to specific airports, the industry-level analysis explores how the presence of airports affects the location and distribution of economic activity in the state. A selected number of state industries are examined in relation to airports.

User-level economic value (User Perspective). The broadest measure of economic contribution is the user-level benefits that are derived from access to and use of aviation services in the state. This analysis explores the intrinsic value that users derive from the system by examining a number of aviation-supported services.

Advisory Committee Overview

As part of the Aviation Economic Impact Study, the WSDOT Aviation Division assembled an Advisory Committee to inform the project’s analyses and products. The Committee was comprised of aviation system users, operators, and beneficiaries, with wide representation from: airport management, local and state government, ports, general aviation pilots and users, businesses, economic development agencies, and other aviation stakeholders. The Committee played an invaluable role as a sounding board to WSDOT Aviation and the consultant team throughout the project.

Summary of Findings

This study finds that there are significant direct economic and fiscal benefits created by the aviation system in the state and that the system is a core element of the state’s transportation infrastructure, which supports local and state economic prosperity. In addition, the value derived by individuals, communities, and businesses from their access to and use of aviation services far exceeds even the direct job, wage, and output impacts.

As state and local jurisdictions grapple with significant budget challenges, it will be critical that aviation system needs, as well as their potential economic and fiscal impacts, be thoughtfully considered when discussing priorities for public funding.

Airport Perspective

The analysis estimates the total impact that can be attributed to airport-related activity at the 135 public use airports in Washington State: 248,500 jobs, \$15.3 billion in wages and \$50.9 billion in total economic activity. From a fiscal perspective, more than \$791 million in tax revenue is generated from aviation activities. Over \$548 million goes towards supporting the State of Washington general fund, while cities, special purpose districts, and counties collect approximately \$243 million in tax revenue.

Of the 135 airports analyzed in this study, the top four account for 91% of total jobs and 95% of total output attributable to individual airport activity. These are Snohomish County Paine Field, Sea-Tac International, Boeing Field, and Renton Municipal. Except for Sea-Tac, these are large Boeing employment centers.

While a very large share of the impacts are attributed to only a few facilities, the entire aviation system is important to the state and local economies for several reasons:

- The network of airports extends commerce and economic opportunity throughout the state.
- While some individual airport impacts are relatively small on a statewide basis, they are nonetheless meaningful to their communities at a local level.
- Airports make important economic contributions besides impacts associated with jobs, wages, and output.

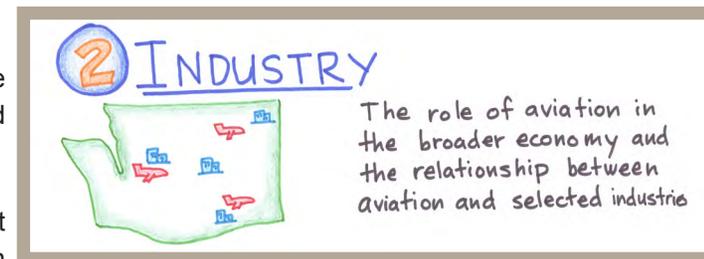
This last point is precisely the reason the overall approach to this study considers three distinct, but related, perspectives on economic contribution. For many airports, particularly the smaller ones, the most important contributions do not come in the form of jobs, wages, and output. Rather, their contribution comes from how the facilities and services support economic activity in the communities they serve and how individual users derive benefits from having access to aviation services.

Industry Perspective

The aviation system plays an integral role in supporting industry and economic activity throughout the state. The Industry Perspective explores the relationship between aviation and specific industries and highlights the ways in which economic activity and aviation are intertwined.

Over 97% of state Gross Business Income (GBI) is generated by businesses within ten miles of an airport and 70% of GBI is generated within five miles of an airport. These statistics reinforce the point that aviation facilities are fundamental infrastructure that extend commerce and economic opportunity throughout the state.

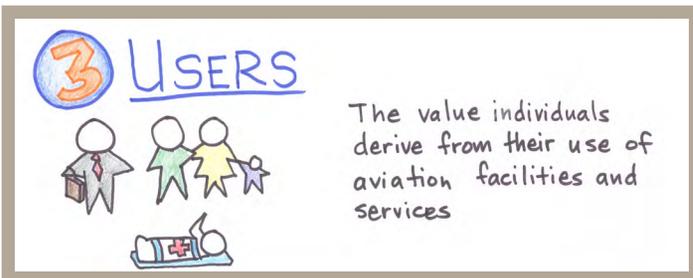
When you look broadly at industry location patterns, a number of industries cluster around airports, but it



is difficult to determine how important airport proximity is among the many factors that influence business location decisions. The one industry that is heavily concentrated near airports is Aerospace, in particular aircraft manufacturing. However, even this industry has a wide network of suppliers that depend on aviation, but do not necessarily locate in the immediate vicinity of airports.

Around different classes of airports, clustering of activity varies by industry and subsector. Thirty-six percent of state GBI is located within five miles of airports with scheduled commercial service. When all airport classes are considered, the percentage climbs to 70%. This is a reflection of the ways in which non-commercial airports play different roles in their communities and are often very important to the local economy.

Overall, airports support industry in a variety of ways and connect communities to commerce and economic opportunities that flow throughout the larger aviation system. The industries supported by aviation are not always clustered immediately around airports. The economic impact analysis presented in the Airport Perspective section is limited to activity occurring on airports and therefore only captures a portion of the benefits that aviation provides to industries and the communities in which they are located. It is important to keep the larger industry perspective in mind when considering the value aviation provides to the state economy.



User Perspective

The User Perspective provides a discussion of the value derived by individual users of the state's airports and aviation services. Additionally, value accrues to non-users (in the event that they might one day need to use aviation services) and communities (particularly from services that protect property and save lives). While inherently difficult to measure, the value of aviation services must be seen in more than just a measure of gross business income or the number of jobs at particular airports.

Communities, particularly those in rural or remote areas, benefit from aviation services and activities in many ways that aren't captured in either the Airport or Industry Perspectives. One example of these services is aviation-supported firefighting activities, which protect private property from destruction wrought by wildfires. Preventing losses to private property supports the tax base of entire communities. It also protects natural resources that have both industrial uses (e.g. timber for logging) and recreational uses (e.g. hiking in State parks). In addition to this example, the value users derive from 17 broad aviation services, such as medical evacuation, search and rescue, and air cargo services, are described in the User Perspective section.

Considering economic impacts as the sole measure of value of the aviation system in Washington State neglects the very real benefits users experience from aviation services and activities. What the User

Perspective demonstrates is that a great deal of value, above and beyond the number of jobs and gross business income, is created throughout Washington's aviation system and especially in the smaller airports that make up the majority of the 135 public use airports in the state.

Advisory Committee Perspectives on Report Findings

During the discussion of study findings at Advisory Committee meetings and through the broader stakeholder outreach effort, a number of perspectives were offered on how this report and its findings can be used. The list below captures these observations and provides suggestions that the WSDOT Aviation Division and other policymakers can use to inform development of policies to support the aviation system and state and local economies.

State Legislation

- Legislation is key to helping protect, preserve, and grow the system, and this study provides a useful base for discussion of airport issues at the state level.
- The study can serve as a mechanism to bring different aviation-related interests together to respond to state-level budget and policy issues affecting airports.

Airport Capacity

- The study provides the state with the ability to look at the economic implications for expanding capacity and maximizing our current inventory of aviation facilities.
- The FAA and the state are currently working to help prepare airports for the acquisition and implementation of NextGen technology, which will increase capacity and safety, as well as reduce emissions and noise. Given the value of airport capacity, WASP policies place a high priority on efforts to enhance existing capacity through improvements in technology.

Land Use/Accessibility/Mobility

- Land use around airports was a critical issue in the WASP. This study provides a better understanding of the broader statewide value of airport facilities and should be used in policy discussions about improving compatible land use as well as preserving and enhancing facilities.
- While this study does not specifically speak to the role of aviation in a broader transportation system, there is clearly a need to ensure that all of the state's transportation modes work effectively together to maximize the overall effectiveness of the statewide transportation system.
- Along these lines, during a presentation of preliminary findings to the Washington State Transportation Commission, a policy question was raised about whether the State has an interest in undertaking initiatives to improve or expand commercial air service to communities in Washington state. Specifically, commission members were interested in how to leverage federal grant opportunities to improve or expand air service to non-metropolitan communities.
- A significant share of aviation system economic contributions are from mobility and connectivity for both people and freight.

Rural Airports

- Aviation infrastructure will be a critical element to rural economic development efforts. This study underscores the importance of aviation facilities and services in these parts of the state.
- The study identifies a critical economic value of smaller facilities, namely access to life-saving medical air transport and other critical services such as fire fighting that protect life and property in smaller rural areas.

Impact of Costs

- Although this study focuses on the benefits of aviation, it is important to note that airports are expensive to build and to maintain. Sometimes the best way to grow means understanding the best ways to prioritize needs and leverage existing assets.
- Another aspect of costs that should be included in policy discussions is that many of the broad economic benefits come at some localized cost, often in terms of noise and traffic impacts.

Job Growth

- Regional airport facilities are a significant contributor to the state's economy and measures need to be taken to maintain and improve facilities at regional airports so these facilities can continue to support job growth.

Diversity

- One of the real strengths of the system statewide is the diverse nature of Washington's aviation system, which helps connect communities, spread economic opportunity, and provide essential public and commercial services.