

## CHAPTER 2. THE DATA COLLECTION PROCESS

### 2.1 Introduction

As introduced in **Chapter 1. Introduction and Methodology**, a multi-pronged data collection effort was necessary to capture the aviation activity generating economic impact in West Virginia. With 2019 serving as the base year for the West Virginia Aviation Economic Impact Study, on-airport and off-airport data were collected. On-airport data include employment and capital improvement expenditures made by airports and their tenants, while off-airport data include visitor spending by out-of-state visitors arriving to West Virginia via the state's commercial service (CS) and general aviation (GA) airports. Five surveys were developed and deployed to gather the information required to quantify on- and off-airport impacts:

- **Airport Manager Survey** - respondents included airport managers, airport administration staff, board members, and municipal finance staff.
- **Airport Tenant Survey** - respondents included Fixed Base Operators (FBOs), concessionaires, rental car agencies, flight schools, aircraft maintenance, and other businesses located on an airport's property.
- **Commercial Air Passenger Survey** - respondents included passengers arriving from out of state through one of West Virginia's seven commercial service airports.
- **Transient GA Pilot & Passenger Survey** - respondents included passengers arriving from out of state on private aircraft through one of the state's 24 public-use airports.
- **Aviation-Reliant Business & Business Aircraft Owner Survey** - respondents included businesses that are not located on airport property but that rely on West Virginia's airports to conduct business. Also included are businesses that own aircraft based at one of the 24 study airports.

Hard-copy and electronic versions of the surveys were utilized as appropriate depending on the audience. These surveys were distributed to their intended survey populations beginning in July 2020 during airport site visits. To make surveys as accessible as possible, many surveys included the use of quick-response (QR) codes which directly linked the user to online versions of the surveys (in SurveyMonkey) if they preferred. Additionally, a dedicated WV AEIS project website was created to further communicate the purpose of the study, provide status updates, and facilitate public access to the surveys. The following sections provide additional details on the purpose, approach, and key data gathered from each of these five surveys.

### 2.2 Airport Manager Survey

The Airport Manager Survey was the first to be deployed as airport manager input was required to deploy several of the other surveys. The survey requested information on airport employment, payroll, operating expenditures, and capital improvement expenditures. Additionally, the survey obtained contact information for airport users including tenants, aviation-reliant businesses, and businesses with based aircraft. It was this contact information that was critical to the deployment of the Airport Tenant Survey and the Aviation-Reliant Business & Business Aircraft Owner Survey.

### 2.2.1 Approach

Before site visits were conducted at each of the study airports, a webinar was held with airport managers and representatives to communicate the purpose of the WV AEIS, provide an overview of the information requested in the survey, share details on how and why site visits were being conducted, and what airports could expect to receive when the study concluded. After the webinar, an individualized, pre-populated Airport Manager Survey was sent to each of the 24 airports included in the study. Each manager was asked to review and complete the survey to the best of their ability in advance of a site visit to their facility. All 24 airport site visits were scheduled and conducted during July 2020, each lasting approximately two hours.

The survey included six sections:

1. General airport information (contact information, types of activity, etc.)
2. Airport-sponsored employment, expenditures, and revenues generated in calendar year (CY) 2019
3. Estimated transient (out-of-state) visitor trip information
4. Descriptions of special activities, unique attributes, and community benefits of the airport
5. Estimated impacts of the Coronavirus Disease 2019 (COVID-19) on airport operations in comparison to the previous year
6. Names and contact information for on-airport tenants, businesses with based aircraft at the airport, and local and non-local businesses reliant on their airport

During site visits, information provided by airport managers was verified and missing survey data were completed. Many airport managers provided a tour of their facilities and identified airport tenants for additional follow-up. In some cases, additional follow-up was required as managers did not have access to the information being requested or needed to check with other staff not present at the site visit. Follow-up efforts resulted in complete datasets being provided by airport managers.

### 2.2.2 Key Data

The Airport Manager Survey was the longest and most comprehensive survey for the WV AEIS, requesting information on a variety of topics for CY 2019. The following outline presents the topics covered on this survey:

- General airport information
  - Airport administration contact information
  - Types of aviation services
  - Types of airport activity
  - Overview and elaboration of airport activities
- Economic Impact (all CY 2019 except where noted)
  - Airport-sponsored employees by occupational role
  - Outsourced or contract employment
  - Expenditures
    - Annual wages and benefits paid to all airport-sponsored employees
    - Contractor costs

- Capital improvement expenditures (2016 - 2019)
- Operating expenses
- Revenue generation
- Airport visitors
  - Percentage of GA transient (non-local) operations
  - Average number of passengers (including pilots) and average length of stay for each GA transient operation
- Impacts of COVID-19
  - Scale of overall impacts of COVID-19 on the airport (financial, operational, etc.)
  - Reduction of revenues, if any, date of decline, and estimated percent change compared to 2019
  - Impacted sectors of airport activity (CS, GA, recreational, business, etc.) and if specific to aircraft type (e.g. piston or jet aircraft)
  - Changes in overall operation activity for CS and GA
  - Potential impacts of state grant program reductions on the airport budget
  - Requested or granted rent abatement or deferrals for airport tenants
  - Percentage of tenants that have applied for/requested assistance
  - Changes to on-airport employment
  - Other adverse effects of COVID-19 on the airport
- Contact information and employment estimates for each on-airport tenant
- Contact information and employment estimates for each off-airport business that bases aircraft at the airport
- Contact information for each non-local business that relies on the airport
- Contact information for each local business that relies on the airport

## 2.3 Airport Tenant Survey

Airport tenants are a significant driver of economic activity generated on and by an airport. To determine the extent of their impact, business-specific information was sought, including employment, payroll, and expenditures. Due to the sensitive and confidential nature of some of these data, not all information is presented in this study in an effort to protect the privacy of individual business owners. However, an aggregated airport total is presented to capture and summarize the total impact of each study airport and the airport network as a whole.

The number and type of tenants present at an airport varied between larger airports located in more urban or developed communities and smaller, rural airports. Five airports reported having no tenants while two airports having more than 20 tenants representing a wide range of industries. Among rural airports in West Virginia, the most common tenants provided emergency aerial medical services and aerial inspections or surveying. Tenants at larger airports included aerospace companies, military, airline operators, and many more.

### 2.3.1 Approach

Airport tenants were identified by managers on their airport manager surveys. To the best of their knowledge, airport managers provided contact information and employment estimates for each of their tenants. During the airport site visits, an Airport Tenant Survey was distributed to each tenant available during the time of the visit. Tenants that were not available were emailed a transmittal letter from the West Virginia Aeronautics Commission (WVAC) and a Portable Document Format (PDF) of the survey along with a link to an on-line version for completion.

The most important pieces of information necessary to calculate the economic impact of each tenant are 1) employment numbers and 2) type of business. While it is highly desirable to have all tenants return a completed survey, several did not respond despite several rounds of emails and phone calls. Of more than 140 tenants identified, 84 completed and returned a tenant survey. When a tenant did not complete a survey, data provided by the airport manager regarding tenant employment and business type were used. If these estimates were not available from the airport manager survey, ESRI's Community Analyst and ReferenceUSA were used to gather the necessary tenant data.

Once all required tenant data were obtained, findings were compiled by airport and (including tenant name, business type, and employment) and sent to each airport manager for confirmation. Upon confirmation, IMPLAN was used to estimate payroll and business revenues for tenants that did not provide this information. Estimates were reviewed with WVAC prior to finalizing.

#### 2.3.1.1 Key Data

The topics addressed on the survey included:

- Business/company contact information
- Type of industry/business
- Number of full-time and part-time employees
- Expenditures
  - Annual wages and benefits paid to all employees
  - Real estate taxes
  - Capital improvement expenditures (2015 - 2019)
- Any additional economic benefits/services that the business provides to the community
- Impacts of COVID-19
  - Scale of overall impacts of COVID-19 on business (financial, operational, etc.)
  - Decline in operations and revenue, if any, and estimated date of decline and degree
  - Reduction in employment, if any, to what degree and status (permanent or temporary)

## 2.4 Commercial Air Passenger Survey

Seven commercial service airports act as a gateway for domestic and international travelers to enjoy the unique experiences West Virginia has to offer. These airports facilitate scheduled air service to 20 destinations that connect travelers to thousands of domestic and international destinations.

A Commercial Air Passenger Survey was developed to understand the spending patterns of

visitors and to develop a visitor spending profile to be used in the calculation of airport impacts. The distinction between out-of-state visitors and West Virginia residents traveling within the state (or traveling home from out-of-state) is important as only the expenditures from true visitors to West Virginia should be counted as it represents money coming into the state from elsewhere.

### **2.4.1 Approach**

In coordination with the West Virginia Office of Tourism, 2018 commercial service visitor data were obtained from Longwoods International, a travel and tourism-centric market research consultancy. These data obtained from Longwoods provided an initial spending profile of out-of-state visitors to West Virginia. This spending was adjusted to 2019 dollars to match the base year for this study. To supplement these data, commercial service airports were asked to participate in deploying an online version of the Commercial Air Passenger Survey on their airport website and/or on the airport's Wi-Fi gateway page. Yeager Airport (CRW), Tri-State/Milton J. Ferguson Field (HTS), and Morgantown Municipal - Walter L. Bill Hart Field (MGW) airports participated in collecting commercial service visitor data. Data collection efforts for commercial service visitors occurred over a six-month period from July to December 2020.

Due to the impacts of COVID-19 on commercial air passenger behaviors, survey responses were used to provide a comparative analysis between 2019 and 2020 visitor spending. After filtering outlier survey responses, 218 unique commercial air passenger responses were collected and used to show both quantitative and qualitative impacts of COVID-19 on out-of-state traveler behaviors in 2020. Surprisingly, the spending profile was very similar between years despite initial predictions that the amount being spent by visitors would be dramatically reduced in 2020.

#### **2.4.1.1 Key Data**

The topics addressed on the survey included:

- Airport at which the survey was initiated
- City/state of primary residence
- Number of nights spent in West Virginia
- Number of persons in traveling party
- Expenditures made in West Virginia (outside the airport)
- Purpose of trip (business, convention, personal, etc.)
  - If business related, the product or service provided by their company or the company they are visiting
- Travel contingency plans had the airport used been unavailable for use

## **2.5 Transient GA Pilot & Passenger Survey**

GA airports accommodate a wide variety of uses including business and leisure flying, aerial surveying, medical evacuation operations, and many more. Similar to the Commercial Air Passenger Survey, the Transient GA Pilot & Passenger Survey was solely focused on developing a spending profile for out-of-state visitors (referred to as transient) arriving via GA to the state's 24 airports.

### **2.5.1 Approach**

During site visits, each airport was provided with hard-copy surveys and a survey collection

box and poster advertising the WV AEIS and the importance of their participation in the visitor surveys. These GA visitor survey materials were placed in high-traffic, highly-visible locations at each airport such as lobby desks at FBOs, airport restaurants, waiting areas, etc. The posters and hard-copy surveys included a QR code which linked survey respondents to the online version of the survey (via SurveyMonkey) for ease of completion.

A total of 91 unique GA visitor survey responses were collected via the hard-copy and online survey formats. Similar to the Commercial Air Passenger Survey, only responses from out-of-state visitors were used.

### **2.5.1.1 Key Data**

The topics addressed on the survey included:

- Airport at which the survey was initiated
- City/state of primary residence
- Number of nights spent in West Virginia
- Number of persons in traveling party
- Expenditures made in West Virginia (outside the airport)
- Purpose of trip (business, convention, personal, etc.)
  - If business related, the product of service provided by their company or the company they are visiting
- Travel contingency plans had the airport used been unavailable for use

## **2.6 Aviation-Reliant Business & Business Aircraft Owner Survey**

Air transportation is vital to the facilitation of business and economic activity in West Virginia as it allows for the quick movement of goods and people (e.g. shipment of raw materials or transportation of staff to a client site). Manufacturing, mining, aerial landscaping, power line inspection, and many other types of businesses rely on West Virginia airports to conduct business. Information about businesses that depend on aviation and those that base aircraft used for business purposes are important to understanding the statewide economic benefit of the airports. Additionally, data collected from these businesses are critical to understanding the factors which influence a business' decision to locate in the state and the types of businesses that rely on the airports.

### **2.6.1 Approach**

Aviation-reliant businesses and businesses with based aircraft were identified from completed Airport Manager Survey responses. Airport managers provided contact information and the type of business to the best of their ability. Secondary sources were used as a supplement when managers didn't provide complete information. Each business that was successfully identified was emailed a transmittal letter from the WVAC and a PDF of the Aviation-Reliant Business & Business Aircraft Owner Survey along with a link to an online version for completion. Following the initial transmission of the electronic survey, several rounds of email and phone outreach were conducted in an effort to encourage maximum survey participation.

Airport Manager Survey responses identified 250 aviation-reliant businesses and businesses with based aircraft. Only 33 businesses participated in the survey despite all follow-up efforts. These

survey responses provide more qualitative information about the critical importance of airports as it pertains to business activity in West Virginia.

### 2.6.1.1 Key Data

The topics addressed on the survey included:

- Business/company contact information
- Number of full-time and part-time employees
- Business use of aviation (commercial service and GA, passenger travel and cargo transport, etc.)
- Influence of business location factors (highway access, cost of living, trained workforce, etc.)
- Which West Virginia airports need improvements made to them (facilities, services, commercial flights, freight access, etc.)
- Final thoughts on the ability of West Virginia's airports to support business needs

## 2.7 Summary

A total of five surveys were developed and distributed to airport and aviation users across the state to gather pertinent data on their use and reliance on West Virginia's aviation system. This data was vital to the calculation of the economic impact of the state's 24 study airports, explored in detail in **Chapter 3**.