JVIATION®

March 27, 2019

Bid Clerk
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305

RE: Expression of Interest, Professional Services to Prepare an Economic Impact Study of West Virginia's 24 NPIAS Airports

Dear Members of the Selection Committee:

The Jviation team is pleased to submit this expression of interest to the West Virginia Aeronautics Commission to provide professional services to conduct a Economic Impact Study of West Virginia's 24 NPIAS Airports. Important aspects of our submittal follow:

- Jviation leads the industry in preparing recent, relevant, and innovative statewide economic impact studies. Jviation's five-year history for preparing successful economic impact studies is unmatched. Our success is based on sound yet transparent technical analysis, our ability to effectively communicate results, and our commitment to complete our studies to our client's satisfaction.
- We have an excellent understanding of the objectives, the needs, and the desired outcomes that the West Virginia Aeronautics Commission (WVAC) has for this project. Providing the NPIAS airports in West Virginia with economic impact results that are transparent and easy to understand and defend is one of the most powerful tools that the state can provide to support the airport system.
- Jviation is focused on bringing innovation to our economic impact studies; and much of our innovation focuses on our deliverables. We provide products that have a purpose, our reports are easy to understand, and we provide the tools necessary to make your study a success. Jviation has introduced new products and approaches such as automated flight maps, legislative reports, and face-to-face training. We are committed to effectively telling the story, documenting all the ways airports in West Virginia benefit the communities they serve.
- Jviation's staff includes former state aviation directors/planners, FAA officials, and the most experienced economic impact professionals in the country. Jviation takes a holistic approach to our economic impact studies, and we will provide WVAC with collaborative and strategic thinking, peer review, and innovative approaches. Our proposed project manager, Mike Maynard, recognized as an industry leader, has completed economic impact studies for 17 states. We have 16 different staff members who have contributed to past economic impact studies, and these individuals have participated in the development of 30 statewide economic impact studies. In total, members of the Jviation staff have completed 60 different state, regional, or individual airport economic impact studies.
- Jviation is committed to providing a high quality statewide economic impact study for the West Virginia NPIAS airports. We will provide the resources needed to ensure that this study is professionally managed, reviewed, and controlled to meet all established study goals, timelines, and milestones. We encourage you to contact the references we provided for our recently completed economic impact studies; our references can attest to Jviation's ability to provide you with the effective economic impact study you are seeking.

Jviation seeks to hire the best and to work for the best. Our philosophy and culture are based on looking beyond the current project and at the big picture to help ensure the future success of each of our aviation clients. Our team offers the right mix of personnel, experience, technical expertise, knowledge, and objectivity needed to accomplish all project objectives. Jviation is excited about this assignment for West Virgina, and we hope that you will give our proposal and our team careful consideration. Please contact me at 303.877.1211 should you have any questions regarding this submittal.

Sincerely,
Jviation, Inc.

Travis Vallin

Travis Vallin, Principal
travis.valling@jviation.com

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Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Expression of Interest
02 — Architect/Engr

Proc Folder: 549033

Doc Description: Addendum 1-ECONOMIC IMPACT STUDY OF WV 24 NPIAS AIRPORTS

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2019-03-20	2019-03-27 13:30:00	CEOI 0807 SAC1900000001	2

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Name, Address and Telephone Number:

Jviation, Inc.
900 S. Broadway, Suite 350
Denver, CO 80209
303-524-3030

FOR INFORMATION CONTACT THE BUYER

Jessica S Chambers
(304) 558-0246
jessica.s.chambers@wv.gov

Signature X [signature] FEIN # 26-1584377 DATE 03/27/2019

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum

Addendum No.01 issued to publish and distribute the attached information to the vendor community.

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The Acquisitions and Contract Administration Section of the Purchasing Division ("Purchasing Division") is soliciting Expression(s) of Interest ("EOI" or "Bids") for West Virginia Aeronautics Commission ("Agency"), from qualified firms to provide consulting services ("Vendors") as defined herein.

****Please note: Online responses have been prohibited. You must submit your proposal via mail or fax. The fax number is: (304)558-3970.

INVOICE TO	SHIP TO
ADMINISTRATOR	EXECUTIVE SECRETARY
WEST VIRGINIA AERONAUTICS COMMISSION	WEST VIRGINIA AERONAUTICS COMMISSION
BLDG 5 RM 129	BLDG 5 RM 129
1900 KANAWHA BLVD E	1900 KANAWHA BLVD E
CHARLESTON WV25305	CHARLESTON WV 25305
US	US

Line	Comm Ln Desc	Qty	Unit Issue
1	Professional Engineering Services for Economic Impact Study	0.00000	

Comm Code	Manufacturer	Specification	Model #
81000000			

Extended Description :

Professional Engineering Services for Economic Impact Study

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:_____

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[X]	Addendum No. 1	[ ]	Addendum No. 6
[ ]	Addendum No. 2	[ ]	Addendum No. 7
[ ]	Addendum No. 3	[ ]	Addendum No. 8
[ ]	Addendum No. 4	[ ]	Addendum No. 9
[ ]	Addendum No. 5	[ ]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Jviation, Inc.
Company

Authorized Signature

03/27/2019
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

QUALIFICATIONS, EXPERIENCE, AND PAST PERFORMANCE

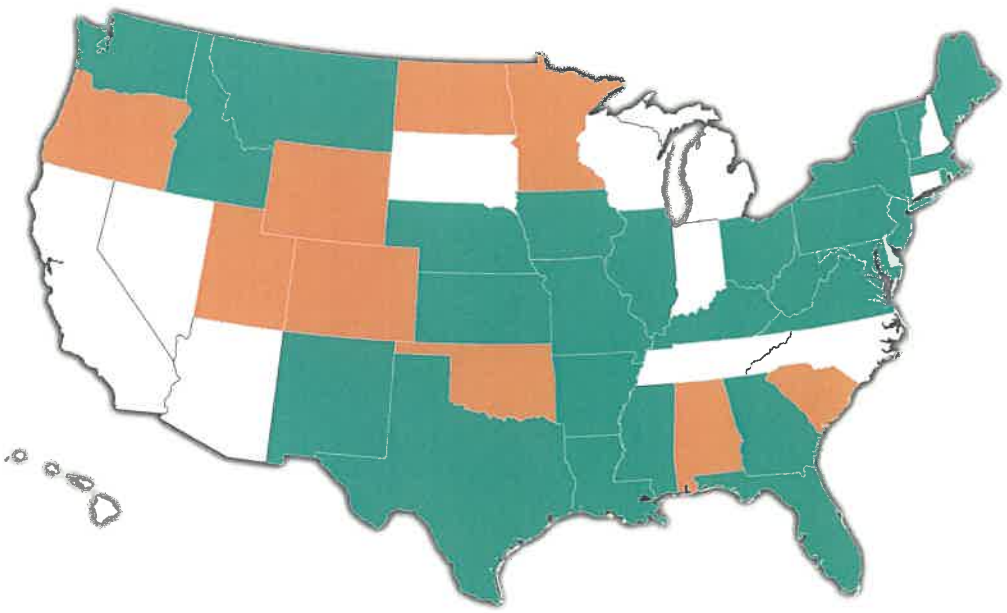
Jviation is a full-service airport consulting service firm, providing a full spectrum of planning and engineering services. Our primary product lines include statewide economic impact studies and state system plans. Because we are an aviation firm that provides economic impact analysis, we have a solid understanding of the specific airport/aviation inputs needed for a successful study. Many pure economists often do not completely understand the airport/aviation industry; they often miss the distinction between itinerant and transient operations, and the nuances between passengers, enplanements, and O&D travelers are often lost. Because Jviation is an airport/aviation firm, we fully understand the specific inputs that are required for a successful statewide airport economic impact study.

Founded in December of 2007, Jviation has evolved as a leading aviation planning, design, and construction management firm in the United States. Jviation has grown to a staff of 96 employees, and we have more than 75 airport clients and 10 State Department of Transportation clients. Since the firm's inception, we have completed hundreds of successful projects for a multitude of airport clients.

Nationally, Jviation has the highest number of experienced statewide economic impact consultants. We have 16 Jviation staff members who have contributed to various aspects of a statewide economic impact study. In the last few years, Jviation has added experienced staff to support our aviation economic impact practice. Jviation recently completed statewide economic impact studies for Oklahoma, South Carolina, Wyoming, Colorado, Oregon, and North Dakota, and are currently working on a statewide economic impact study for Alabama, Minnesota, Utah, and Wyoming.

The accompanying map reflects the collective economic impact experience of the Jviation staff we plan to devote to West Virginia's economic impact study. During their careers, Jviation staff have played key analytical or managerial roles in economic impact studies for almost 30 states. In some cases, our staff prepared multiple economic impact studies for the same state; they have also prepared economic impact studies for regional airport systems and for large international airports. **This translates into staff experience on more than 60 successful economic impact studies. Our level of staff experience is unmatched in the industry.**

- Jviation state economic impact study clients
- Individual Jviation staff statewide economic impact experience

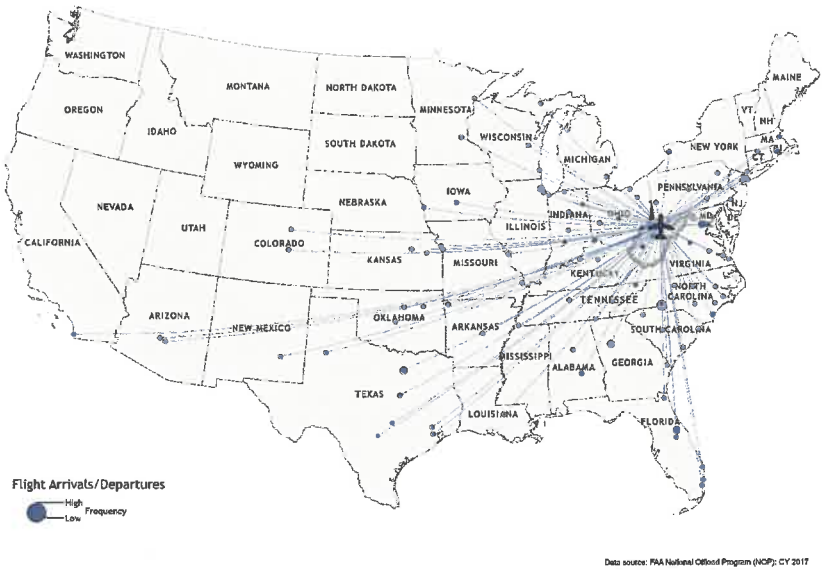


While Jviation has a strong economic impact resume, we are continually challenging ourselves to improve our approach, our products, and our communication strategies. We constantly look for ways to bring innovation to our economic impact studies. Some of the innovations that Jviation introduced into economic impact studies in the past few years include:

- Airport flight maps that show the connectivity each airport provides to communities in the United States.
- Face-to-face training for airport managers to better understand, discuss, and distribute study results.
- Use of captive WiFi portals to conduct visitor surveys at commercial and general aviation airports and FBOs.
- Airport specific "stories" that detail uses and users at each airport; this information helps put a face on the airport by documenting health, welfare, social, and environmental services each airport supports.
- Methodology Guide that helps airports answer typical questions and explain study inputs, approach, and findings.
- Online training tool that enables airports to "refresh" what they learned in face-to-face training.
- Legislative reports for each state house and senate district that distill economic impacts for the airports in each state congressional district.
- One-page factsheet that further summarizes the executive summary; this report pairs well with the legislative report.
- Implementation toolkit that gives the airport a sample press release and information on how they can use social media to distribute study results for their airport.
- Automated statewide activity maps that use information from FAA's National Offload Program to visually show "a day in the life" of flight activity supported by the state's airport system.

Our innovative efforts are spurred by former state and FAA employees who now work for Jviation. Jviation employs two former state aviation directors, four former state airport planners, and three former FAA ADO/Regional managers. In their former roles, these individuals were the "customers" for many consultant-generated studies, they were in "your seat." These Jviation employees have a different and more holistic perspective because they have been the end user for state economic impact studies. Input from these individuals has helped Jviation broaden our perspective, improve the transparency of the study results, and produce reports that are easy to understand.

TRI-STATE AIRPORT'S ANNUAL FLIGHT ACTIVITY



In addition, as detailed in our proposal, we have developed a cloud-based economic impact calculator. This calculator is far more effective than others that are currently available. The calculator is airport-specific—it is not based on one-size-fits-all equations. The calculator enables airports to estimate changes in economic impact (both increases and decreases), if conditions at the airport change following the completion of the statewide study. Other calculators do not provide the option for lowering an economic impact based, for example, on the loss of a major tenant. The airport can update its "baseline economic impact" reflected in the snapshot that was taken at the time the state study was conducted. Updates are possible to the airport management, the airport tenant, the capital investment, and the visitor spending categories. The calculator also enables an airport to estimate "potential" economic impact, for instance, if they believe they will attract another tenant or increase their enplanements.

RECENT STATE ECONOMIC IMPACT STUDY EXPERIENCE

The following project descriptions focus solely on Jviation's recent statewide economic studies. This experience is supported by hundreds of other planning, environmental, strategic, and engineering projects. In the past six years, Jviation has provided a number of successful statewide economic impact studies. Brief discussions of each of these studies follow.

Reference:
James Stephens, Executive Director
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jstephens@aero.sc.gov

STATEWIDE AIRPORT SYSTEM PLAN AND ECONOMIC IMPACT STUDY

South Carolina Aeronautics Commission (SCAC)

South Carolina's state airport system plan was conducted in conjunction with an update to the state's economic impact study. It is important for SCAC to be able to compare the costs of each airport's development and maintenance needs with the annual economic benefits that are attributed to each airport.

One of the hallmarks of Jviation's economic impact studies is transparency. Our studies show separately the economic impacts that come from five impact categories (airport management, airport tenants, capital investment, general aviation visitor spending, and commercial visitor spending). Results in South Carolina for each category are shown separately and are not bundled, as they had been in the prior South Carolina study done by another firm. Jviation's economic impact study for South Carolina was transparent in its approach and results are easy to understand.

South Carolina is heavily dependent upon tourism. Jviation took extra steps to collect accurate spending information from visitors to the state who arrive by air. Leisure travelers to South Carolina have vastly different spending patterns than visitors on business-related travel. Understanding and reflecting these differences for communities such as Charleston, Hilton Head, and Myrtle Beach was essential to providing realistic, community-specific results.

A separate estimate for the economic impact of Boeing's operations in Charleston was produced as part of this study. Each airport received an individual report summarizing their specific economic impact. The study findings were also supported by an executive summary and a one-page study factsheet. Jviation prepared a presentation that SCAC used to present study results to members of the South Carolina legislature.

As part of the study, it was very important for SCAC to have information on tax revenues that come from airport-supported activities. Jviation estimated tax revenues related to:

- Sales tax paid by South Carolina residents whose jobs are linked to airports
- Sales tax related to that portion of each airport's and each airport tenant's spending for goods and materials
- Sales tax on the taxable portion of capital investment
- Sales tax paid by visitors on hotels, rental cars, food, retail, and entertainment
- State income tax paid by South Carolina residents whose jobs are linked to airports

STATEWIDE AVIATION ECONOMIC IMPACT STUDY UPDATE

Oklahoma Aeronautics Commission

Reference:
Grayson Ardies, Deputy Director
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gardies@oac.ok.gov

Jviation conducted a statewide aviation, aerospace, and airport economic impact study for OAC. The study measured economic impacts from three major sources:

- 109 commercial and general aviation airports
- 3 Air Force Bases (Vance, Altus, and Tinker)
- All aviation and aerospace businesses in Oklahoma that are not located on one of the 109 study airports

Jviation, OAC, and the study airports worked together to compile information that tells the "story" for each airport. Medical and emergency services support, support for law enforcement, and support for Oklahoma's vast agricultural industry were documented on an airport-by-airport basis. In addition, both Oklahoma and visiting businesses who benefit from the airports were documented.

The study highlighted the statewide benefits that Oklahoma receives from both based and transient aerial applicators, and benefits that it receives from providers of aviation-related education and training. The state is home to FAA's largest training center and there are several colleges and universities that have extensive aviation-related curriculum. Because of the state's concentration of military aviation activities, there are many programs in Oklahoma to train airport mechanics.

Similar to the economic impacts for the 109 study airports, Oklahoma's three Air Forces Bases are major centers for employment, spending, and payroll. These impacts were also documented.

Oklahoma has attracted many aviation and aerospace employers who are not located at one of the 109 study airports. Working with the Oklahoma Department of Commerce, Jviation identified these employers and documented their employment, payroll, and annual spending in the state. Combined, the airports, Air Force Bases, and the off-airport aviation and aerospace companies provide a significant economic benefit to Oklahoma's economy.

The roll-out for this study was attended by more than 400 business, elected, military, transportation, and government officials. Governor Mary Fallin presented study findings to this group.

STATEWIDE AVIATION SYSTEM PLAN AND ECONOMIC IMPACT ANALYSIS

Oregon Department of Aviation

Reference:
Jeff Caines, AICP, Project Manager
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jeff.caines@aviation.state.or.us

In 2015, the Oregon Department of Aviation (ODA) contracted Jviation to update the Oregon Airport System Plan (OAP). As part of the OAP assignment, Jviation is charged with "clarifying and re-writing" the state's existing economic impact study. ODA contracted with another firm to conduct a statewide economic impact study in 2007 and an update in 2014. When the 2014 study was delivered, ODA found that the study findings were presented in such a way that the findings were not transparent and were presented in such a way that airport managers found it difficult to use the study results.

As part of its effort for ODA, Jviation is re-writing and re-packaging the early study so that the findings can be understood and communicated by ODA and Oregon airports. In addition, Jviation is providing more accurate estimates of general aviation visitor impacts. This process included review and updating of annual operations and itinerant operations data. True transient operations estimates were applied to the model. The repackaged analysis provides ODA summaries of impacts for each system airport as well as statewide. Economic impact of airports were also broken out by the Oregon's designated transportation regions in the previous studies. Jviation is separating the region impacts from the statewide impacts to provide better clarification of the analysis.

The findings of the updated economic impacts will be included in a separate chapter in the OAP. Each airport's economic impact will be presented in a stand-alone summary sheet in the appendix of the document. Since the state of Oregon is geographically diverse, impacts to transportation regions will be also presented.

STATEWIDE AVIATION ECONOMIC IMPACT STUDY UPDATE

North Dakota Aeronautics Commission

Reference:
Kyle Wanner, Director
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kcwanner@nd.gov

North Dakota's last statewide aviation economic impact study was completed in 2010; however, the study needed to be updated to reflect changing economic conditions in North Dakota. Jviation's economic impact study was designed specifically to document how airport economic impact changed with the changes in the state's oil and gas industry. Jviation's study also provided an approach that was more transparent and results that were easier to understand.

Between 2010 and 2015, North Dakota experienced significant growth. This growth was stimulated by new extraction techniques that made it possible to recover abundant supplies of oil and gas, primarily in the western part of the state. Resident population increased, companies opened new offices in the state, and business travel to the state grew exponentially. The energy boom in turn resulted in significant growth for North Dakota airports. All facets of aviation activity at airports throughout the state grew, resulting in the need for the state to increase its investment in airports to keep pace with growth.

The North Dakota Aeronautics Commission engaged Jviation to conduct a statewide aviation economic impact study to measure the impact of airport activity and the benefit of interrelated developments in the network of the 89 airports across the state. This study was designed to show increases in airport economic activity as it related to each of the following: airport management, airport tenants/ businesses, visitors arriving on commercial airports and commercial airlines, and investment made to support airport improvements. The study was directed by a Working Group that helped ensure that study results were specifically geared to the state's needs.

It was important for the Aeronautics Commission to document to the State Legislature the important role that commercial and general aviation airports play in supporting North Dakota's economy. The Working Group provided input to develop products for airport managers, enabling the managers to be "champions" for the study results. In addition, Jviation developed district-specific airport economic impacts for North Dakota's state elected officials. Jviation helped North Dakota airports and the Aeronautics Commission demonstrate the role airports play in supporting the state's economic growth and how the economic impact of each individual system airport changed as a result of the state's economic development.

STATEWIDE AIRPORT ECONOMIC IMPACT STUDY

Minnesota Department of Transportation

DEPARTMENT OF TRANSPORTATION

Reference:
Christopher Morgan, Project Manager
T: 651.234.7263
christopher.morgan@state.mn.us

Jviation is the lead consultant on a statewide economic impact study for Minnesota's system of approximately 135 commercial and general aviation airports. A high level of coordination between Jviation and the MnDOT staff has characterized this study; in addition, a Project Advisory Committee consisting of airport representatives, representatives from other modes of transportation, economic development interests, and individuals from other aviation interests in the state is providing study input and oversight.

Jviation's cloud-based database and data collection system is supporting this study. Jviation has worked with airport managers, airport tenants, and others to collect direct impacts for the study. Extensive outreach to obtain survey information from visitors to Minnesota arriving by air has also been completed. The study is using direct employment, payroll, and spending impacts to estimate aviation-related tax revenues associated with each of the study airports. These impacts will be reported in each airport's individual airport report, as will the airport's flight map which shows how the airport connects the airport to communities throughout the US.

Statewide case studies on how airports support aerial applicators, firefighting, businesses, and healthcare are being prepared. Data has been collected throughout the study so that examples of how the individual airports support the communities they serve can be reported as part of each airport's individual airport reports. Individual reports are also being developed for each state House and Senate district;

these reports will help each state elected official clearly see the economic benefit and annual tax revenues that are associated with airports that serve their specific district.

As part of this project, Jviation is providing MnDOT with access to an online economic impact calculator. This calculator will enable airports to update their individual economic impacts, as estimated in the state study. The calculator will also enable airports to estimate potential economic impacts that could be associated with changes in the operating conditions at their airport.

ALABAMA STATEWIDE AIRPORT SYSTEM PLAN, ECONOMIC IMPACT STUDY, AND PAVEMENT MANAGEMENT PLAN

Alabama Department of Transportation, Aeronautics Bureau

Jviation is the prime consultant for the preparation of a statewide airport system plan, economic impact study, and pavement management plan for the Alabama Aeronautics Bureau. With a diverse system of commercial service and general aviation airports, the Bureau wants to ensure the long-term vibrancy of its airports through strong local advocacy and economic development.

As part of Jviation's update to the airport system plan, a comprehensive system evaluation is being conducted using a variety of analytical tools, and cloud-based processes. The system evaluation will help Alabama determine how well its current system is performing and where they may be opportunities for improvement, including a comprehensive reporting of projects and costs that are needed to address current and future system needs. These needs are also supported by the associated pavement management plan. Additionally, the overall effort also includes an economic impact study to tell the story of the airport system in terms of the quantitative and qualitative benefits Alabama's airports afford their host communities. Note that Jviation's proprietary cloud-based database and data processing system is key to producing and effective and integrated study.

Finally, Jviation is supporting the Aeronautics Bureau with analyses and supporting documentation for the development of a new general aviation airport within the state.

Reference:
Dr. John C. Eagerton IV, Chief, Aeronautics Bureau
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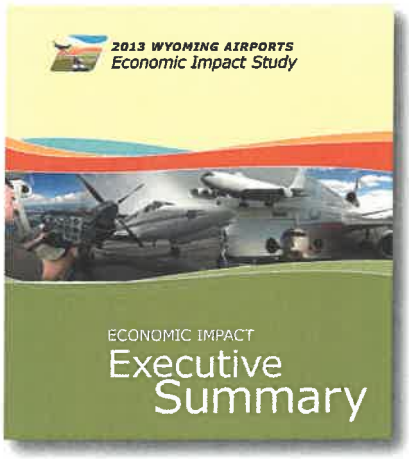
eagertonj@dot.state.al.us



STATEWIDE AVIATION ECONOMIC IMPACT STUDY UPDATE

Wyoming Department of Transportations, Aeronautics Division

Jviation completed an update to Wyoming's statewide economic impact study for its public airports. This project included all of the state's commercial and general aviation airports.

WYDOT Aeronautics completed a statewide economic impact study in 2009. However, the Division found certain shortcomings in the 2009 study and chose Jviation to update the study. One of the primary objectives was to make the economic impact process and the study results more transparent. Much of the audience for the 2009 study found it difficult to accept that a small general aviation airport could be contributing more than $1 million per year in economic impact. While the impact was correct, the method for estimating it was not explained sufficiently and the results seemed to have been generated using a "black box." Jviation took extraordinary efforts in the Wyoming study to explain each input needed to estimate economic impact, the data source for these inputs, and the step-by-step process used to estimate each airport's economic impact. We streamlined the study approach to make it more understandable for all report consumers. It is our philosophy that if the customers for the economic impact results can understand, explain, and stand behind the study results, our work has been successful.

Wyoming has 90 House and Senate Legislative districts. Jviation prepared a separate report for each State Representative; these reports were the subject of a Legislative Reception in mid-February 2014. The reports are concise and geared specifically to this target audience. Each report includes a general overview of total statewide airport-related economic impacts, as well as the specific annual economic

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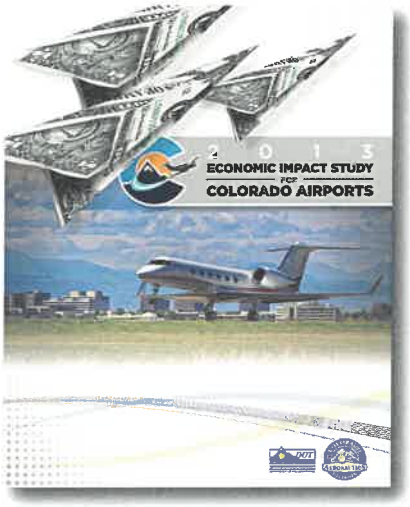
impacts of each of the airports in the district for each representative. A critical output for the Wyoming study was to provide state elected officials with information on the benefits of the airports in their districts. Jviation first launched our Legislative Reports to support the findings of Wyoming's statewide economic impact study.

A major goal of WYDOT Aeronautics was to secure information that would clearly illustrate and document how airports serve the entire community, not just specific airport users. Using leads from our data gathering efforts, we undertook extensive outreach to collect stories for each airport that illustrate various users who benefit from each airport. Our outreach included businesses, hospitals, colleges, doctors, state and federal agencies, chambers of commerce, travelers, economic development agencies, and others. Our outreach enabled us to provide the information that WYDOT Aeronautics was seeking on specific airport uses and users. Additionally, we were able to develop a compendium of stories for each airport, from the largest commercial airport to the smallest general aviation airport. Now that these stories are documented, WYDOT Aeronautics will be able to add to these stories in the future as more information becomes available.

Airport managers—the primary customer for the economic impact study—must be able to understand how impacts were calculated and be able to discuss study results. To accomplish this objective, we developed a Methodology Guide specific to the approach taken in this study. The Guide provides information on how the impacts were calculated, and specific examples for calculating impacts related to airport management, airport tenants, capital investment, and visitor spending (both general aviation and commercial airline). The Guide was used in face-to-face training sessions with the airport managers. We also provided a training slide show that is posted on the WYDOT website—airport managers can consult and revisit the information in the slide show as often as necessary so they can maximize the benefit they obtain from study results.



STATEWIDE AVIATION ECONOMIC IMPACT STUDY UPDATE

Colorado Department of Transportations, Aeronautics Division

Jviation, as a major subconsultant, provided CDOT Aeronautics with a comprehensive update to their statewide economic impact study. This study included all of Colorado's 76 commercial and general aviation airports, including Denver International (DIA).

This study included extensive outreach to and involvement with all study airports. The primary customers for Colorado's economic impact study were the airports themselves. As a result, the study airports were involved in the development of the study. Reviews were especially important as they related to employment for the airport and all tenants at each airport. The team worked extensively with each airport to develop estimates of their annual general aviation visitors; the FAA and Aeronautics also participated in the development of a methodology to estimate annual general aviation visitors. We worked with each study airport and established an estimate of weekly visiting aircraft. For a plane to be considered "visiting," occupants had to de-plane and leave the airport. We also worked with the airports to establish a fleet mix for visiting general aviation aircraft, including a typical load factor (occupants per plane) for each aircraft type. We used various FAA databases with information on general operations as a check for all visitor estimates developed using this process.

Economic impacts associated with manufacturers who use air cargo were estimated in this study. Many Colorado companies rely on air cargo to ship products they manufacture in the state. Without access to air cargo shipments, these companies would be restricted in their customer base and the market area they serve, resulting in a negative impact on their bottom line. For the Colorado study, we took steps to first identify and then estimate economic impacts tied to the shipment of air cargo.

The study provides a comparison timeline of annual economic impacts. The 2012-2013 Colorado study was the state's fourth statewide economic impact study. There are many factors that contribute to increases and decreases in annual economic impacts on the individual airport level. Primary contributors include

Reference:
Scott Brownlee (Former CDOT Airport Planner)
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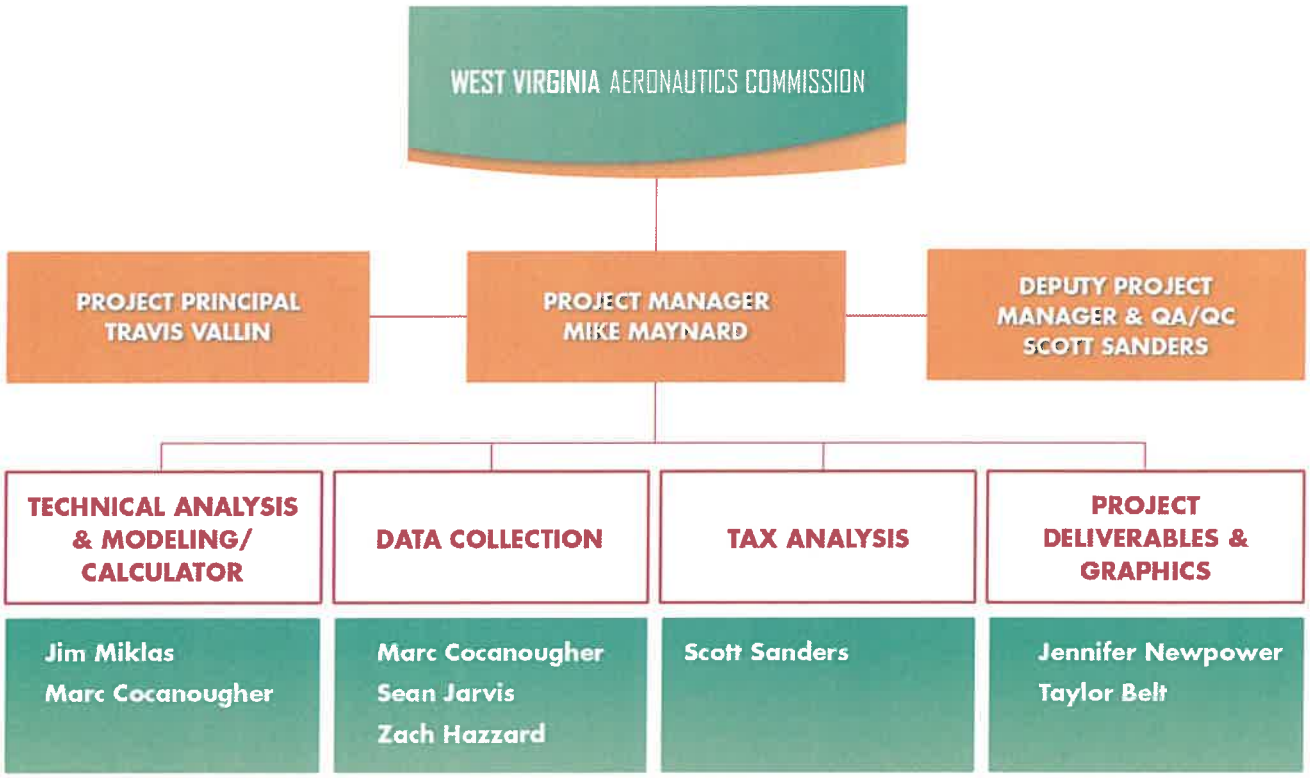
sbrownlee@gatewayairport.com

attraction or loss of key airport tenants, changes in commercial airline service, major development projects/capital investment, and changes in the economic makeup of the community the airport serves.

Prior iterations of the Colorado economic study used only a state model to estimate the individual economic impact of each airport. While this approach accurately portrayed each airport's total impact on the state's economy, it overestimated the impact of airports on the local area each airport serves. In this study, each airport's economic impact on the state economy was estimated, as well as the economic impact each airport has on its local market area. This was accomplished by building airport-specific IMPLAN models that reflected conditions specific to each airport's economic setting. In many instances, local elected officials and others are most interested in the airport's local impact.

JVIATION STAFF AND PROJECT TEAM

Jviation team members have extensive aviation economic impact experience. Short bios, focused on economic impact studies follow.



The Jviation team provides WVAC with unique economic analysis experience. While most economic analysis firms can only develop studies with a consultant's perspective, Jviation provides a more holistic approach. With seven former state aviation officials (Colorado, Missouri, and Utah), Jviation staff have been "on your side of the table." We know how to prepare economic impact analysis that are valuable day-to-day decision-making tools.

MIKE MAYNARD - PROJECT MANAGER

Mike Maynard will play important analytical roles in the economic impact study. Mike has 35 years of experience in aviation, starting in the commercial airline industry. He joined Jviation in the spring of 2016. His primary areas of experience and expertise include airport economic impact studies, airport system planning, air cargo studies, and airport master plans. Mike has had a lead managerial or technical role in preparing statewide economic impact studies for the following states:

- Illinois
- Nebraska
- Idaho
- Montana
- Oklahoma
- New Mexico
- Louisiana
- Ohio
- Texas
- Utah
- Florida
- Maine
- Mississippi
- Arkansas
- Oregon
- Alabama
- Minnesota
- South Carolina

35 Years of Experience

Master of Arts, Geography / Transportation Planning

Bachelor of Arts, Geography

Airports Council International, Air Cargo Committee

Mike has managed economic impact studies for major airports including Indianapolis International, Kansas City International, Pittsburgh International, Port Columbus International, and Chicago-O'Hare Airports.

Mr. Maynard's air cargo analysis has provided state governments, airports, air carriers and aviation related industries with in-depth analysis and planning for route development, cargo master planning, and airport related economic development. He was also the Principle Investigator for *ACRP Report 143 – Air Cargo Facilities Development and Planning Guidebook.* It should be noted that Mike, working with Scot and Marc, was the lead planner for the 2012 Economic Impact of Airports in Illinois Study.

Mr. Maynard's comments and viewpoints have appeared in: Midwest Flyer, Air Cargo World, Traffic World, Airport Business Magazine, and other industry publications. In addition, he has given industry presentations to Airports Council International, Air Forwarders Association, The American Association of Airport Executives (AAAE) and various state and local government agencies. Mike began his aviation career in the airline industry.

TRAVIS VALLIN - PROJECT PRINCIPAL

Travis Vallin was the Director of the Colorado Department of Transportation's (CDOT) Division of Aeronautics for 12 years, and he served as the state's airport planner for eight years prior to becoming director. He is the only state aeronautic director to ever hold the position of Chairman of the National Association of State Aviation Officials (NASAO) for two consecutive years. In his role as state aviation director, he was involved with three Colorado aviation economic impact studies, two Colorado statewide aviation system plans, and the Colorado Mountain Airport System Plan.

26 Years of Experience

Bachelor of Science, Airway Science Management

FAA-Certified Airport Safety Inspector

FAA-Certified Rescue Fire Fighter (ARFF)

Private Pilot

His work on the Colorado Surveillance Project (Mountain Airport System Plan) is a prime example of the leadership Travis has to bring local, regional, state, and national interests together to create innovative and cost- effective methods to improve safety and efficiency within the National Airspace System. This project is one of the cornerstones of the FAA's NextGen emerging technologies effort designed to supplement existing radar technologies. A major reason for Travis's success as state aeronautic director, was his thorough understanding of the challenges and opportunities facing the aviation industry, his ability to find consensus on issues impacting airports on a wide variety of aviation issues, and his understanding of how each airport supports regional, statewide, and national aviation systems and economies.

Travis' economic impact experience includes studies for:

- Alabama
- Colorado
- Minnesota
- North Dakota
- Oklahoma
- South Carolina
- Wyoming

SCOTT SANDERS - DEPUTY PROJECT MANAGER, QA/QC, AND TAX ANALYSIS

Scott Sanders brings more than 30 years of experience in the preparation and management of aviation planning assignments throughout the United States and abroad. His areas of specialization focus on system planning and assessing the economic impact of aviation. In addition, he has extensive experience in master plans, land use and site selection assessments. Mr. Sanders has directed more than 15 system plans and 25 aviation-related economic impact studies. These include individual commercial service and general aviation airports, as well as regional and statewide airport systems. He has served as the project manager or technical lead for economic impact efforts for:

30 Years of Experience

Master of Science, Urban and Regional Planning

Bachelor of Science, Political Science

Bachelor of Science, Anthropology

Transportation Research Board, Board, AV010, Aviation Intergovernmental Relations

- Arkansas
- Florida
- Kansas
- Illinois
- Massachusetts
- Mississippi
- Ohio
- Texas
- San Diego International
- Utah
- Wyoming
- Huntington Tri-State

In addition to identifying the employment, payroll, and output associated with aviation, many of these economic studies also focused on identifying the many social and community benefits provided. Scott's statewide studies have been successfully used as public education tools to highlight the value of airports and promote and increase airport funding opportunities. While with another firm, Scott served as the project manager for the recent Huntington Tri-State Airport Economic Impact Study as well as planning efforts for Summersville, Yeager, and Martinsburg. Scott is active with the Transportation Research Board and is often asked to speak regarding airport system planning and economics at conferences and symposium.

JIM MIKLAS - TECHNICAL ANALYSIS AND MODELING /CALCULATOR

With more than 20 years of experience, Jim serves as the manager for Jviation's planning group. Jim has experience in aviation design and planning studies of all types. His experience extends from the strategic (state aviation system plans, economic impact studies, airport master plans, strategic business plans) to the tactical (survey and airspace analyses, easement acquisitions, site evaluations) for airports of all sizes and in various locales. As a planner, his background as a private pilot and in fixed-based operator services bolsters his understanding of the needs of pilots, airlines, and airports.

23 Years of Experience

Bachelor of Science, Journalism

Private Pilot

Jim's experience includes various lead analytical roles for economic impact studies in:

- Alabama
- Florida
- Rhode Island
- Maine
- Maryland
- Massachusetts
- Minnesota
- South Carolina
- Washington

Jim has played a key role in Jviation's recent economic impact studies for South Carolina, Alabama, and Oklahoma, helping prepare direct and indirect impacts for modeling. Jim led the development of Jviation's economic impact calculator and will be in charge of this effort for NDOT's economic impact study. He also helps manage and analyze FAA's NOP data that helps support general aviation visitor estimates, the development of static flight maps for each airport, and the automated statewide flight map.

MARC COCANOUGHER, AICP, CM - TECHNICAL ANALYSIS AND MODELING / CALCULATOR, AND DATA COLLECTION

Marc has 11 years of planning experience, and joined Jviation in 2017. He brings a wealth of experience in progressively demanding roles on a wide range of aviation and freight planning projects, including economic impact studies, aviation system plans, airports master plans, air cargo studies, freight plans, and air service studies.

A versatile planner, Marc holds extensive aviation industry knowledge and specialized skills such as economic modeling, activity forecasting, trend analysis, regression analysis, and database management. He has an extensive resume of airport and state economic impact studies, including economic impact work at large commercial hub airports such as Pittsburgh International Airport and San Diego International. Marc has worked on statewide economic impact studies for:

- Florida
- Georgia
- Idaho
- Illinois
- Iowa
- Kentucky
- Louisiana
- Mississippi
- Ohio
- Pennsylvania
- Minnesota
- Alabama
- South Carolina

11 Years of Experience

Bachelor of Arts, Urban and Regional Planning

American Institute of Certified Planners

Certified Member of AAAE

Envision Sustainability Professional of the Institute for Sustainable Infrastructure

Certificate in Geographic Information Science

Since joining Jviation, Marc has focused his efforts on economic impact studies for South Carolina, Oregon, and Alabama, and statewide aviation system plans for Georgia and Missouri. He is also playing a key role in Jviation's development of leading-edge data management solutions and modeling solutions. Marc has been a primary contributor to the development of Jviation's in-house economic impact model and its economic impact calculator.

SEAN JARVIS - DATA COLLECTION

Sean Jarvis began his aviation planning career with an internship at Denver International Airport (DEN). During his internship, he gained experience specific to airport operations, snow removal, public relations, marketing, master planning, economic impact studies, noise abatement programs, and wildlife management. His experience at DEN provided him with excellent familiarity on all federal airport regulations and policies. Since joining Jviation, Sean has worked on numerous master plans, airport layout plans, economic impact studies, and statewide system plans. He recently worked on statewide plans for:

- Alabama
- Georgia
- Minnesota
- Missouri
- Oregon

2 Years of Experience

Bachelor of Science, Aviation Management with Emphasis in Space Commercialization

He is a key member of Jviation's team that developed a state-of-the-art information management system. This system provides improved efficiency and accuracy for our clients as it relates to database management. Sean is also on the team that developed Jviation's economic impact calculator.

ZACH HAZZARD - DATA COLLECTION

Zach Hazzard focuses on airport statewide system planning and economic impact studies. He assists in gathering preliminary data about airports before traveling to airports for the statewide plans. Zach also participates in writing and editing the final report documents of the economic impact studies and system plans. He has experience in mapping analysis, remote and in-field data collection, airport visits coordination, and flight data analysis. Most recently, he has worked on statewide studies for:

- Alabama
- Georgia
- Minnesota
- Missouri
- Oregon

1 Years of Experience

Bachelor of Arts, Urban and Regional Planning

JENNIFER NEWPOWER - PROJECT DELIVERABLES AND GRAPHICS

Jennifer is an experienced communications professional with 25 years of experience developing and executing strategic communication programs and marketing strategies. Her experience includes market research, brand standard development, public relations, event planning, content development, and targeted marketing campaigns. She works in concert with Project Managers to implement integrated communication plans for Jviation's clients that support community engagement and awareness through the use of modern strategies, tactics, skills, and tools. Her recent experience includes supporting the communication efforts for numerous statewide planning initiatives, including project brand development, brand packaging, graphic and communication design, presentation development, and product production. Her experience includes statewide study project deliverables for:

- Alabama
- Georgia
- Minnesota
- Missouri
- North Dakota
- Wyoming

25 Years of Experience

Bachelor of Arts, Mass Communications and Spanish

TAYLOR BELT - PROJECT DELIVERABLES AND GRAPHICS

Taylor is a graphic designer with four years of branding, document design, graphic design, and layout experience. She has experience in logo design, company branding, website design, packaging and graphic design. She provides expertise in the design of proposal, presentation, and project graphics in accordance with style guidelines and distinct marketing themes. Taylor provides graphic design support for all of Jviation's public outreach and planning projects.

- Alabama
- Georgia
- Minnesota
- Missouri
- North Dakota
- Oklahoma
- Oregon
- South Carolina

4 Years of Experience

Bachelor of Arts, Graphic Arts

GOALS AND OBJECTIVES

ECONOMIC IMPACT STUDY OBJECTIVES

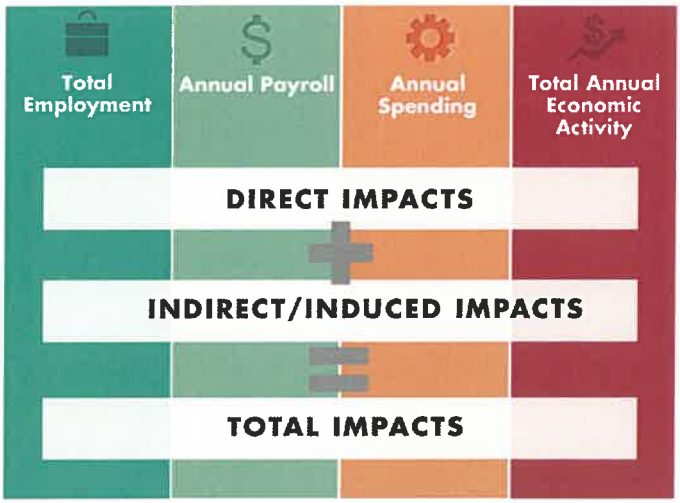
- Produce an Economic Impact Study that quantifies the current airport-related economic outputs and employment benefits for West Virginia.
- Utilize a method that is technically sound, yet transparent and easy for non-economists to accept and understand.
- The study will assess the strengths and weaknesses of the 24 airports related to economic impacts, revenues, taxes, and unique aviation activities.
- Research, evaluate, and document information to show the various ways each airport supports the communities it serves; we will document the real-life stories for each airport.
- Conduct training sessions (at the annual airport managers conference or via webinar) and provide toolkits to airports, airport sponsors, elected officials, and other stakeholders so that they understand and can explain and defend the economic impacts for their airport.
- Prepare an executive summary that summarizes study results. This document will be supported with a one-page factsheet that further distills study findings. An infographic poster can be prepared for display at each airport.

ECONOMIC IMPACT STUDY PROJECT UNDERSTANDING

The last West Virginia Economic Impact of Airports study was completed in the 1990s. Since that time, conditions at many of the airports have changed, as has the aviation landscape, both nationally and in West Virginia. The 2019 West Virginia Economic Impact of Airports Study will provide West Virginia Aeronautical Commission (WVAC) with a fresh look at how the West Virginia's system of 24 NPIAS airports is contributing to the economy at the state, regional and local levels. It is anticipated that the study will be completed in 12-months from notice to proceed. This study will provide WVAC an opportunity to educate airport stakeholders, local decision makers, legislative branches of government and the public on the significant economic impact airports provide.

The study will not only identify the quantitative impacts of aviation in terms of employment, payroll, and output, but also focus on the qualitative benefits related to significant aviation activity such as air ambulance flights, law enforcement activities, natural resource management flights and supply chain management using air cargo.

The results of the study will show the positive impacts airports provide to their communities as well as the State. Many of the busier airports operate in the "black" with airport management revenues to the airport covering operations and maintenance costs. Additionally, many of these airports will have robust economic impacts stemming from tenant impacts and visitor impacts. There will likely be airports, however, that are challenged with low activity, limited on-airport business activity, and minimal visitor traffic. While these airports may have low economic impacts in terms of output and direct jobs, they provide important access for air ambulance flights, doctor transport, and emergency management flights (FEMA, etc.) as well as a host of other unique benefits for the communities they serve. This study will provide a thorough evaluation of jobs, revenues,



management costs, and capital improvement budgets as well as unique, harder to quantify activities; thereby telling the complete story of how each airport supports it's community. Taxes generated by each airport, including aviation fuel taxes, and in the visitor/hospitality industry will also be evaluated.

The following highlights our general approach to the preparation of an Economic Impact Study for WVAC.

ECONOMIC IMPACT STUDY APPROACH

TASK 1: Conduct Surveys and Collect Data for Direct Economic Impacts

Each airport's annual economic impact originates from one of five sources: airport management, airport tenants, general aviation visitors, commercial visitors, and/or investment in capital improvements. These direct impacts form the basis for all subsequent study results.

Through on-site visits, online surveys, and/or phone interviews, direct economic impact information from each airport's management function, each on-airport tenant, and a statistically valid sample of visitors arriving on commercial and general aviation aircraft will be collected. Data on average annual investment for capital investment from public and private sources will also be collected and assembled. Three West Virginia airports have recently completed economic impact studies – Tri-State Airport (HTS) in Huntington, Yeager Airport (CRW) in Charleston, and Eastern West Virginia Regional Airport (MRB) in Martinsburg. These stand-alone studies will be evaluated, updated with current enplanement, tenant, and capital expenditure data, and incorporated into the WVAC Airport Economic Impact Study, as appropriate.

Data collected will also be used as a basis to document airport uses and users; this information will help to tell the "story" for each airport. Collecting and documenting examples of how each airport supports it's businesses and communities can be used to educate community and state leaders on the full range of benefits each airport provides, not just jobs and dollars.

Direct Impacts for Airport Management and Tenants

Jviation will prepare a customized tenant survey that is administered through a combination of /on-site visits, cloud-based on-line portals, and telephone interviews. A representative of the Jviation team will contact each airport and major tenant to give each an opportunity to ask any questions they may have on the survey and to schedule on-site visits. The purpose of on-site visits and follow-up contacts is to verify responses and to obtain any missing survey information; to further discuss the nature of visiting general aviation aircraft for their airport; and to gather information on the ways the airport benefits the communities it serves. For any "non-visit" airports, management and tenant data will be secured primarily through survey responses, email, online survey links, and/or phone interviews. Data collected from airport management will include employment, annual payroll for airport staff, annual operating expenses, annual airport revenue (fees, city and/or county allocations, hangar rent/lease, fuel sales, etc.), and non-aviation activity revenues.

Our cloud-based database and survey process allows us to quickly check data for accuracy by benchmarking it against typical responses for similar businesses and airports. We maintain a sample of hundreds of airport tenants from across the U.S. to aid in verifying tenant responses and to help us accurately estimate missing information for non-respondents.

Direct Impacts for Average Annual Capital Investment

Another source of direct economic impact is spending associated with capital improvement projects (CIP). Information for each airport operator will be collected to document local investment that has been made, particularly to match state and FAA grants. Information from airport tenants will also be collected to document private/third party investment (particularly for hangars) that has taken place at each airport. Since airports do not necessarily complete capital projects each year, a five-year (or other as determined appropriate) investment grant history will be assembled for each airport. WVAC and/or the FAA will be the source of historical state and FAA funding for study airports.

TASK 2: Conduct Surveys and Collect Data for Visitor Impacts

This task will estimate the number of visitors to West Virginia that arrive via an airport, as well as the level of their spending that occurs during their visit.

Estimates of General Aviation Visitors

Top-down estimates of each airport's general aviation visitors will be developed considering total annual itinerant operations. FAA National Offload Program (NOP) data for each airport, as well as discussions with WVAC staff, airport managers and FBO personnel, will be used to determine reasonable estimates of transient aircraft visiting each airport and the number of visitors they carry. The NOP data can also be used to create flight route maps for each airport to show origin and destinations of flights to the airport.

We utilize a wide variety of techniques to collect visitor expenditure data. Our unique method of collecting passenger spending data using WIFI connections has provided outstanding results for several state clients including Minnesota, Alabama, South Carolina, North Dakota and Oklahoma. For similar studies, Jviation has provided opportunities for local college students studying aviation to assist in data collection at commercial service airports. Our studies in Georgia, Alabama and Wyoming have provided this opportunity.

Commercial Aviation and General Aviation Passenger Surveys

Visitor expenditures represent a primary source of economic impact at most airports. Each of the commercial airports will be asked to furnish annual enplanements for 2018 and year-to-date for each month in 2019. Data from USDOT's Origination and Destination (O&D) survey will be used to determine the percent of local (resident) versus visiting enplanements for each commercial airport.

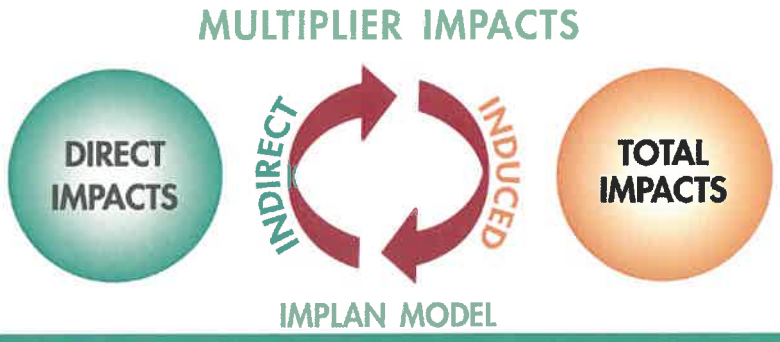
We will work with all commercial airports to use their public WIFI connections to post visitor surveys. Alternate means for conducting visitor surveys will be identified on an airport-by-airport basis if online surveys are not an option. Information from the surveys will be used to establish average visitor expenditures per trip by airport. For general aviation airports, Jviation will work with airport management and select FBOs to survey arriving pilots and passengers on their expenditure patterns. This survey information will be supplemented with Jviation's extensive in-house database on spending patterns at general aviation airports throughout the country.

TASK 3: Estimate Direct and Indirect/Induced Economic Impacts and IMPLAN Modeling

The total economic impact of the airports in West Virginia can be viewed as the flow of dollars through the economy, as measured by jobs, payroll, spending, and total annual economic activity (payroll plus spending). As direct impacts are released into the economy, they circulate among other industry sectors, creating successive waves of additional impacts, which in turn support additional employment, payroll, and spending. These successive rounds of spending result in indirect/induced impacts, also referred to as multiplier impacts.

Measuring total economic impacts as part of the Economic Impact Study helps to represent the full effect of each aviation-related dollar in West Virginia. For each individual airport, impacts (direct/indirect/induced) will be reported separately so that it is more apparent to the reader what portion of each airport's economic impact stems from the multipliers.

Total annual economic impacts will be estimated using an input/output model specific to West Virginia. The modeling process will take a conservative approach to estimating all induced and indirect impacts that stem from the multiplier effect. Jviation staff have experience using a variety of multiplier packages to estimate indirect/induced impacts, including IMPLAN. Current IMPLAN multipliers for West Virginia will be used to calculate total impacts for each airport.



TASK 4: Determine Total Annual Economic Impacts

Based on information collected, direct employment, payroll, spending, and annual economic activity will be estimated for activity in five categories of economic impact:

- Airport management
- Airport tenants
- Capital investment
- Visitors arriving by commercial service aircraft
- Visitors arriving by general aviation aircraft

These total annual impacts will be prepared for each system airport and summed to provide the overall impact of the State's airports on the economy of West Virginia. To make the results as transparent as possible, we will show the indirect/induced economic impacts for airport management, tenants, CIP, and visitors separately so that the genesis of reported total annual economic impacts can be more easily understood.

TASK 5: Assess/Document Additional Impacts

Aside from their actual economic impact, airports in West Virginia provide many other benefits and support other jobs throughout the state.

Statewide Aviation Dependent Employment (Value Added) Benefits

Across West Virginia, there are many businesses and employers that rely on various facets of aviation to improve their efficiency. While not located at an airport, these companies may rent, own, or charter general aviation aircraft, or may be businesses who have employees who travel frequently on commercial carriers or have customers or suppliers who fly to WV to visit them. Companies in West Virginia also rely on air cargo shipments for supplies or to ship their products. This task serves to estimate additional jobs in the state that, while not 100% dependent on aviation, do benefit and have improved efficiency from aviation. Impacts in this category are sometimes referred to as catalytic economic impacts.

Statewide impacts for aviation dependent employment whose efficiency is increased through the use of aviation will be expressed, using IMPLAN, in terms of statewide jobs. These jobs are typically not estimated on an airport-specific basis as users may rely on more than one airport. As part of the study's technical and executive summary reports, the number of additional jobs in West Virginia that gain efficiency from using the study airports will be documented on a statewide basis.

Airport and Airport Supported Tax Revenues

Airport activities in West Virginia contribute to state and local tax revenues often adding strength to the state's development.

Aviation-related taxes can originate from the following sources:

- State income tax paid by all employees whose jobs are connected to airport supported activities (management, tenants, CIP spending, and visitor spending); these will be direct jobs identified for each of these categories.
- Sales taxes collected on airport and tenant purchases of goods and materials, along with the taxable portion of CIP investment; these tax revenues will be determined based on direct annual spending by management and tenant tenants and on the estimate of direct annual capital investment for each airport.
- Sales tax paid by those whose jobs are supported by airports and airport supported activities; these will be direct jobs identified for management, tenants, capital investments, and all visitor related spending.
- Sales tax paid by visitors (lodging/retail/rental cars/entertainment); spending by airport by expenditure type will be determined through study surveys.

Estimates of the annual value West Virginia receives from tax revenues it collects from aviation-related employees, air visitor expenditures, and other airport supported activities will be provided.

Uses and Users of West Virginia Airports

It is critical that the community at large (as well as their elected officials) fully appreciate the full range of activities supported by West Virginia's airports. While other portions of this study will document the economic benefits that are associated with the daily operation of airports in West Virginia, this task will document the other ways that airports help to support the communities they serve. Data gathered will help us "put a face" on each of the study airports. Airports in West Virginia support many important activities such as:

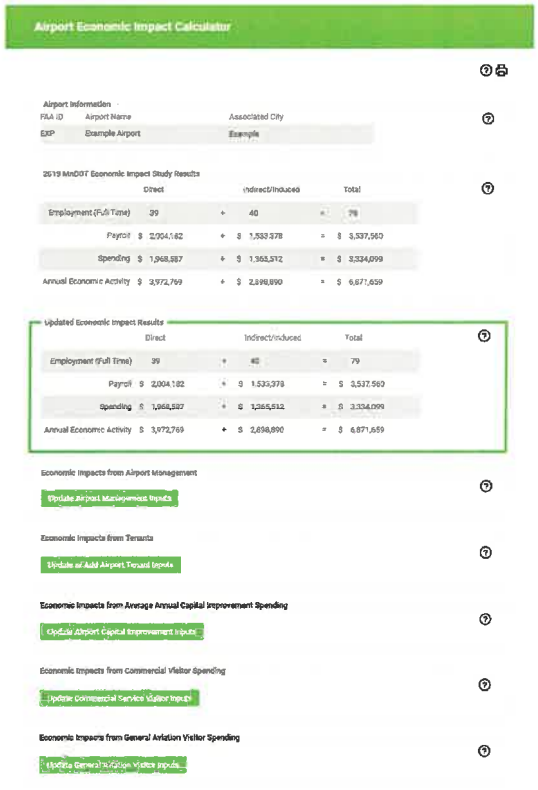
- Management of natural resources/environmental conservation
- Resident and business connectivity
- Doctor and patient transport
- Air ambulance and other emergency services
- Expanded recruitment areas for colleges and universities
- Agricultural aerial application services
- Law enforcement
- Search and rescue

Throughout the Economic Impact Study effort, data on uses and users will be compiled for each airport. This information will document the specific users, uses, and benefits supported by West Virginia's airports. Focused narrative descriptions will be developed for all identified uses/users and included in each airport's individual report.

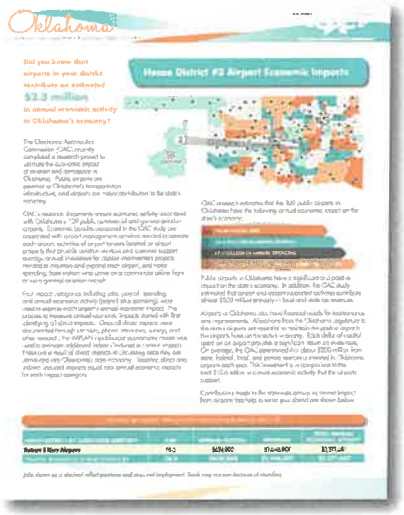
Jviation staff has developed economic impact calculators that have been used by several other DOT clients. This existing calculator can serve as the template for developing a targeted West Virginia specific tool. The focus of our calculator is ease of data input and easily understood results. This will allow WVAC and individual airports to conduct "what if" scenario planning and keep their individual airport impact numbers up-to-date.

Economic Impact Calculator – Optional Task

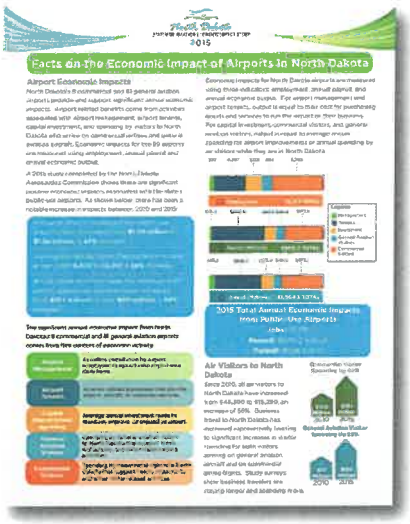
As an add-on to a traditional economic impact study, Jviation can provide WVAC with a dynamic economic impact calculator. The calculator provides the user with the ability to update estimates of economic impact produced during the study, as these impacts represent a "snapshot" of the impacts identified during the study. The calculator also enables the user to estimate "potential" economic impact. For instance, if an airport attracts an additional tenant following the conclusion of the study, the calculator enables the user to estimate the additional economic impact that would be associated with this new tenant.



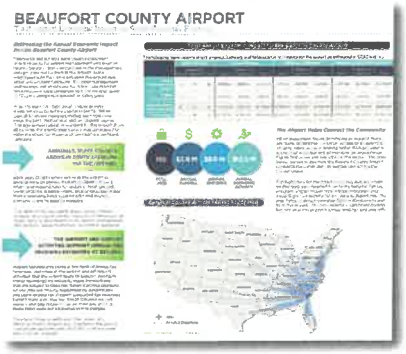
The calculator allows changes in any of the five impact categories: airport management, airport tenants, capital investment, general aviation visitor spending, commercial visitor spending. A separate tab in the calculator is established for each study airport; the calculator is driven by the underlying data in the economic model. The calculator has the ability to estimate a revised economic impact estimate based on actual changes in airport conditions (both increases and decreases). The calculator can also facilitate estimates of "potential" economic impact that could result from changes in airport conditions. A user's guide for the calculator would be provided as would face-to-face training on calculator use.



Example Legislative District Report



Example Factsheet



Example Individual Airport Summary Report

ECONOMIC IMPACT STUDY DELIVERABLES AND COORDINATION/OUTREACH REPORTS

Working Papers

The Economic Impact Study will be prepared in three sections: Direct Impacts, Total Impacts, Tax Impacts. Working papers for each will be provided for review/comment.

Technical Report

The Technical Report will be the compilation of all Working Papers for the Economic Impact Study.

Legislative District Reports

State elected officials (state senate and representatives) are one target audience for the results from the Economic Impact Study. This group needs to understand both the needs and the benefits of the airports that serve their district. The Legislative Reports provide each representative with targeted information to help them better grasp the importance of their airports and the benefits they provide. By preparing summary reports that highlight the needs and the benefits of airports in their specific district, it is easier for state representatives to see specifically how "their" airports are contributing. In less than a 90-second read, state elected officials get important information on airports in their district. We have found these specific reports to be particularly beneficial communications tools. Legislative reports are particularly beneficial when states are trying to maintain or increase their appropriations for airport funding.

Factsheet

As part of our statewide studies, Jviation creates one-page factsheets that summarize only the most important findings and conclusions. These factsheets can be easily reproduced and distributed via email, helping clients reach a larger audience. When used in combination with the Legislative Reports, the factsheets provide a great deal of information in the minimum amount of time.

A one-page, two-sided, multi-color Factsheet will be prepared to summarize the study findings.

Executive Summary

An Executive Summary will be provided to document the study's findings in a succinct, graphically-based, user-friendly format. The Executive Summary will target a wide audience including public officials, airport sponsors, the public, and other interested non-aviation persons. The Executive Summary will be full-color document that utilizes pictures, graphics, and limited narrative to describe the process and results of the analysis from all study elements.

Individual Airport Summary Reports

An effective way to quickly communicate economic impact findings is to prepare an Individual Airport Summary Report. The airport's economic impacts, summary of key users, and flight route map can be included in this report. This type of information strengthens the airports' message on the airport's overall benefits. Individual summary reports are important from an airport and a community perspective.

Social Media Campaign

At the conclusion of the project, a Social Media Campaign can be implemented. This can include design of various marketing materials that clearly communicate the value that airports bring to West Virginia. Parts of the Social Media Campaign will rely on other study products such as the Factsheet, Methodology Guide, Individual Airport Reports, Flight Maps, and Executive Summary. Information produced in association with this effort will be used to launch a media campaign that will be used to increase awareness on the economic impact supported by airports in West Virginia, along with the many other qualitative benefits that are airport supported.

ANNUAL FLIGHT MAP FOR NORTH CENTRAL WEST VIRGINIA AIRPORT

PowerPoint Presentations

Two PowerPoint presentations will be prepared which summarizes study findings; this presentation will be used to support the WVAC presentations at conferences or to stakeholder groups. The second presentation will support the face-to-face training, such as a training session at the state's airport management conference. This presentation can be posted on WVAC's website so that airport managers will be able to refresh themselves on the methodology that was followed to generate study results.

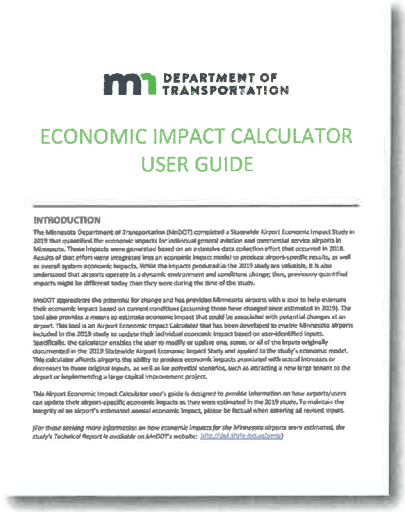
Example Economic Impact Methodology Guide

Economic Impact Methodology Guide

A methodology guide will be prepared to support the face-to-face training/ educational efforts. This guide will provide information on the sources of data used to generate economic impacts, the approach used to estimate direct and indirect/ induced impacts, and specific examples of how annual economic impacts (direct and multiplier) were estimated for airport administration, airport tenants, capital investment, and both categories of visitor spending. A separate training session could be held with airports, members of airport boards, elected officials, and others at the conclusion of the study at the state's annual airport conference. The training that will be provided, supported by the Methodology Guide, will help ensure that results are understood and that they can be clearly communicated. In addition to information on study approach and methodology, the Guide will also include a toolkit that will help airports with the distribution of study results via press releases and various forms of social media.

Economic Impact Update Calculator Tool and User's Guide

The results from Economic Impact Study reflect a snapshot of conditions that characterized system airports at the time data collection for the study is completed. Should WVAC chose to include this in the study, a calculator will be provided that will enable WVAC/study airports to provide updates to their economic impact results. This calculator is described in Task 5 of our approach.



Example Economic Impact Calculator User's Guide

PROJECT COMMUNICATION

Effective and on-going communication with WVAC are important to the success of this study.

WVAC Communication

Project team calls with the WVAC staff will be scheduled every other-week at the onset of the study to share information and keep WVAC staff apprised of the studies progress. . Approximately three meetings with WVAC are recommended. Suggested milestones for these meetings are as follows:

- Project kickoff and field work initiated
- Interim meeting to present of direct impacts for airport management, airport tenants, and CIP investment, indirect impacts from air visitors tax revenues and case studies and airport uses and uses
- Documentation of total impacts

Face-to-Face Economic Impact Training

The effectiveness of an economic impact analysis is greatly enhanced if airports, the state, and members of airport boards/commissions are "educated" on the process that was used to estimate the economic impacts for their airport. Training efforts for this project will be focused in two distinct areas, one understanding the methodology that was used to estimate economic impacts for all study airports; and two, techniques that can be used by study airports to help them communicate and educate others on study results. The training session will be held at the conclusion of the study, preferably at the state airport management conference.

Project Website

A project website will be established at the onset of the study and will be maintained for the duration of the project. The website will provide an opportunity to distribute and collect information about the project. The consultant team will monitor the website and provide quick response to any questions. The project schedule will be posted on the website along with information on project meetings and webinars. Study findings will be posted at key project milestones. The website will also be an important tool for keeping study airports engaged in the study—it will be used to provide airports with an opportunity to review and comment on their direct management impacts, tenants and tenant employment, CIP investment, and visitor estimates. Social media platforms and email blasts will be used to announce website updates. At the conclusion of the study, website content can be transitioned to the WVAC, if desired.

Example Project Website

PROJECT SCHEDULE