
ECONOMETRICA, INC.

**West Virginia Airport Economic
Impact Study**

Vendor's Bid

Expression of Interest No.: CEOI SAC1900000001

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WV PURCHASING
DIVISION

**Organization
and Address**

Submitted To:
State of West Virginia
Department of Administration
Purchasing Division
Attn.: Jessica Chambers, Buyer
2019 Washington Street, East
Charleston, WV 25305
Jessica.S.Chambers@wv.gov

Submitted By:
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March 27, 2019

Jessica Chambers, Buyer
State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305
Jessica.S.Chambers@wv.gov

Reference: Expression of Interest No.: CEOI SAC190000001; “West Virginia Airport Economic Impact Study.”

Dear Ms. Chambers:

Econometrica is pleased to submit this expression of interest to analyze the economic impacts of West Virginia’s 24 airports in the National Plan of Integrated Airport Systems (NPIAS) on the state, its regions, and the airport localities. The attached vendor’s bid describes the resources, experience, professional talent, technical knowledge, and capabilities that our team offers to the West Virginia Aeronautics Commission (WVAC).

Econometrica is a research and management organization committed to providing high-quality, cost-effective economic analysis and support. We provide economic impact analysis to a variety of government and publicly funded agencies and activities in the housing, transportation, healthcare, energy, and economic development areas. Econometrica is interested in assisting WVAC in demonstrating the economic impacts associated with West Virginia’s NPIAS airports that are generated by their activities and the use of the airports by businesses and visitors to the region.

For this effort, we propose Dennis Stout as Project Manager. Mr. Stout is Econometrica’s Director of Housing and Community Development, and he recently managed an economic impact study for the Office of the Mayor of New York City. Mr. Stout is authorized to represent Econometrica on this engagement. Mr. Stout may be reached by phone at (240) 204-5155 or via email at DStout@EconometricaInc.com.

Our project team includes our Senior Economist, Radford Schantz, Ph.D., who has extensive experience performing economic impact studies and who will serve as the technical lead on this project. He is supported by our Airport Economist, Jerome Davis, an airport expert who was previously employed at the Federal Aviation Administration, and by our Analyst, Laurel Leitner, who is experienced with surveys and with providing support to the U.S. Department of Transportation.

Our bid is fixed and valid for a period of 180 days from March 27, 2019.

If you wish to discuss any aspect of our submission, please feel free to contact me at (301) 657-8311 or CBaghelai@EconometricaInc.com. Thank you for considering our team.

Sincerely,

Econometrica, Inc.



Cyrus Baghelai
President/CEO

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1. Introduction

Econometrica, Inc., proposes a study of the economic impacts of West Virginia’s 24 airports in the National Plan of Integrated Airport Systems (NPIAS) that is objective and factual, employing recognized and sound methods and data, is suitable for peer review, is credible to the public, and results in reports and presentations appropriate for a range of audiences, including the media, stakeholders, West Virginia Aeronautics Commission (WVAC), and government officials. Data and analysis will cover the following:

1. The direct and indirect impact of the airports on the state economy.
2. Consistent evaluation of impacts of each airport on state, regional, and local economies.
3. The economic benefits in terms of revenues and taxes from allocating resources to each of the airports.

These products will be useful for the airport and city administrators to communicate the value of the airports, and the information will support strategic planning and funding decisions.

Founded in 1998 in Bethesda, MD, Econometrica is a research and management organization that serves clients in the health, housing and community development, transportation and aerospace, homeland security, and energy sectors. We are staffed with dozens of economists, mathematicians, and statisticians who are able to meet all of the quantitative needs of the airport administrators in this study. Econometrica has served public- and private-sector clients with a wide array of analytical and other services, including the following:

Econometrica Features

- Experience with economic impact analysis.
- Experience with transportation and aviation studies.
- Experience with surveys.
- Access to a wide array of economic consultants.

- Economic research and forecasts
- Economic impact analysis
- Socioeconomic and fiscal impact studies
- Program evaluation
- Market analysis
- Survey research
- Economic development
- Audit compliance
- Technical assistance and training
- Regulatory analysis
- Technical writing and editing
- Operations research
- Sampling
- Transportation-related research
- Valuations
- Consumer product liability
- Real estate analysis
- Asset valuation
- Cost–benefit studies
- Project financing
- Data and statistical analysis
- Risk analysis
- Simulation modeling
- Publication design and production
- Information management support
- Estimating

The Econometrica Team for this proposed study is distinguished by the depth of its knowledge and experience as well as the applicability of its skill set to analyzing the social and economic impact of airports and related activities, programs, and institutions. Our proposed staffing keeps down costs while ensuring continuity of service delivery. It includes a Project Manager with more than two decades of project management experience, including with economic impact studies; a Senior Economist with demonstrated expertise in performing social and economic impact analyses; an Airport Economist with wide experience in transportation economics and airports derived from his experience at Econometrica and the Federal Aviation Administration (FAA); and an Analyst with substantial experience in survey design and evaluation, including ongoing work for the U.S. Department of Transportation (DOT).

The project plan provides a multifaceted approach, ensuring analytical rigor while addressing the issues. Regional economic multipliers—applied to airport and related business spending and employment as well as airport visitor spending—are obtained from IMPLAN regional models. The measures of economic impact include employment by industry, wages and household income, profits by industry, taxes paid by airport-related employees and businesses, and the share of the regional gross domestic product (GDP) generated by airport and visitor activities. Data given in the IMPLAN model databases will be combined with data published by the U.S. Bureau of Labor Statistics, U.S. Census Bureau, FAA, and other sources.

Econometrica's plan builds in a kickoff meeting or video conference at WVAC's office in Charleston, as well as a final presentation to WVAC, with opportunity for additional presentations as requested. Regular interaction with airport administration in the kickoff meeting, coordination to obtain data, and responding to any comments on drafts ensures that the Econometrica Team is synchronized with WVAC's needs. Econometrica tracks project costs and can provide, on request, progress and financial reports to make sure our performance is within schedule and budget. The proposed plan conforms to the 1-year timeframe of the study. The plan is sensitive to budget constraints by employing a small project team including both senior and junior analysts.

The final report will include complete documentation and an executive summary. The documentation will give assumptions, methods, glossary, and references. These materials will be edited and will be appropriate for general circulation.

2. Staff Qualifications and Experience

2.1. Key Personnel

We propose a small team of highly qualified professionals to support this project. Dennis Stout will serve as Project Manager for the Econometrica Team. Radford Schantz, Ph.D., who as Senior Economist will perform most of the analytical work, has more than 35 years of experience conducting economic impact studies. He will plan and execute the analytical approach with support from Jerome Davis, Airport Economist, and Laurel Leitner, Analyst. In addition, should there be any need, this team can draw upon the full resources and experience of other Econometrica professionals to ensure the completion of all proposed work on time, on budget, and on point. Mr. Stout will be the main point of contact and will be available to meet directly with airport staff.

Dennis Stout, M.B.A., M.A., Project Manager, is responsible for overall management of this project and interacting with the airports to ensure their needs are being met. He will ensure adherence to timelines, budgets, and overall project performance, and has the authority within Econometrica to leverage additional staff and resources as needed to complete this impact report as required by the airport administrators. He has more than 25 years of experience managing projects and advising numerous government agencies, including the U.S. Department of Housing and Urban Development (HUD) and the U.S. Department of Defense. Over the past 7 years, he has managed more than 60 market and feasibility studies of various real estate assets, including airfields, for the federal government as well as the review of more than 100 housing market studies prepared by HUD.

Radford Schantz, Ph.D., M.A., Senior Economist, is the lead in providing economic consulting services. He will plan and execute the analytical approach and lead the report writing. Dr. Schantz was principal analyst of a number of socioeconomic studies for the federal government. He has more than 35 years of experience developing economic models, economic analyses, regulatory analyses, and related software and databases. His areas of expertise include valuation and cost-benefit studies; economic impact studies and input-output analysis; and statistical analyses, regression, and forecasting, including IMPLAN, REMI, and CGE models.

Jerome Davis, M.Sc., PMP, Airport Economist, has more than 10 years of experience working as data and analytics lead in the private and public sectors. He will lend his airport expertise to this project and will support Dr. Schantz in the data collection and analysis. He has functioned as Project Manager or Task Lead in numerous transportation and regulatory projects. At the Centre for Spatial Economics, Mr. Davis conducted econometric forecasting and performed economic impact analysis for transportation and other sectors using IMPLAN models. At FAA, Mr. Davis was part of the forecasting branch of the Aviation Policy and Plans Office and was responsible for producing a variety of aviation forecast products. He performed risk analysis on the forecasts and was his team's aviation data specialist, providing specialized data pulls to various FAA stakeholders.

Laurel Leitner, Analyst, has 10 years of experience in survey design and data analysis, qualitative and quantitative research, policy formation and legislative development, and advocacy related to the corporate governance, securities, and transportation industries. She will help collect and tabulate relevant data and will design surveys and evaluate results.

These key personnel will be assisted by **Jonathan Fusfield, M.B.A., Editor**, who will monitor all deliverables during development and provide quality assurance (QA) to ensure they meet WVAC’s requirements and Econometrica’s quality standards for contract deliverables. He is a technical writer and editor with more than 13 years of editing experience for federal, state, and local government agencies, as well as private-sector audiences.

The skills matrix depicted in Table 1 indicates that we have carefully aligned our key personnel’s capabilities with the skills and experience needed by the airports that we believe are paramount to successfully performing this project. Appendix A provides resumes for the Econometrica Team members.

Table 1. Key Personnel Qualifications

Personnel	Role	Aviation Issues Analysis	Survey Design and Evaluation	Market and Financial Analysis	Social and Economic Impact Analysis	Research and Report Writing
Dennis Stout	Project Manager	✓	✓	✓	✓	✓
Radford Schantz	Senior Economist			✓	✓	✓
Jerome Davis	Airport Economist	✓		✓	✓	✓
Laurel Leitner	Analyst		✓	✓		✓

2.2. Project Management

Econometrica’s experience with contract management will expedite response and mobilization of this effort, including project planning and working with airport administrators and staff to determine project goals and objectives, with the establishment of realistic timeframes and project budgets. Econometrica’s management plan provides a well-defined sequence of task planning, development, and execution to ensure timely, efficient, and high-quality work over the period of performance for each task. In addition, the management plan includes a QA plan and a staffing plan to ensure continuity of the project if staff turnover occurs during the execution of any task.

2.2.1. Proposed Lines of Responsibility, Authority, and Communication

Mr. Stout, Econometrica’s Director of Housing and Community Development, is committed to the successful completion of this project. He will ensure that sufficient corporate resources, including Econometrica’s extensive roster of quantitative analysts and economic modelers, are available to complete the project, as designed, in a timely fashion. He and Dr. Schantz will serve as the primary points of contact with airport administrators. Several meetings with airport administrators are included in the project plan, and ad hoc meetings will occur as needed.

2.2.2. Plan for Ensuring Continuity of the Project If Staff Turnover Occurs

While we do not anticipate staff turnover during the period of performance for this project, Econometrica has sufficient economic expertise in-house to ensure continuity of the project should there be staff turnover.

2.2.3. Management Control Systems

Our management control systems ensure that we review the status of each activity frequently. While the solicitation does not call for recurring status reports or reviews of draft products, Econometrica's plan is to provide airport administrators with opportunities to review and comment on preliminary results. The Econometrica Team will maintain regular interaction with the airport administrations throughout the project, including at the kickoff meeting, about data needs, and about comments on deliverables, thus ensuring the team is synchronized with the needs of the airport administrators. We track project costs using refined tools and provide accurate progress and financial reports to make sure our performance is within schedule and budget.

2.2.4. Schedule Compliance

Econometrica continuously monitors the status of each work activity against its established schedule. We compare the work plan to the actual work accomplished and adjust activities, as necessary, to ensure that milestones and deliverables are not affected. If significant variances between scheduled target dates and actual completion dates emerge, we review interim completion dates to assess the overall impact on the master schedule. These monitoring activities ensure that airport administrators receive their deliverables on time and within budget.

2.2.5. Quality Control Procedures for This Project

Econometrica believes that quality is the foundation of everything we do. We will ensure that Econometrica operates this project under the same corporate values and commitment to airport administrators in a seamless and cohesive support approach.

Our approach to quality control and QA is based on Program Management Body of Knowledge processes and methodologies. A key component of our approach is the integration of quality check practices throughout all activities comprising each project, down to every task and subtask that we will perform while supporting this project. We will express this commitment through:

1. Continual communication, as needed, between Econometrica and the airports' points of contact.
2. Implementation of risk management controls.
3. Proactive planning and management techniques.
4. Ongoing quality reviews at multiple levels.

Our QA focus proactively eliminates errors and rework, resulting in quality deliverables produced in an efficient and timely manner. Our Editor, Jonathan Fusfield, will monitor all deliverables during development to ensure they meet project requirements and Econometrica's quality standards for contract deliverables.

2.2.6. Cost Control

Econometrica closely monitors costs to ensure that available resources are used effectively and within budget. We use the Deltek GCS Premier software system—the leading job cost and accounting product for government contractors—to support the cost management process. Using this system, we can provide the contracting office with all required and detailed financial management reports to ensure and maintain effective cost control throughout the task order period.

Econometrica utilizes Deltek GCS Premier with effective and reliable project accounting solutions specifically designed for companies that do business with the U.S. government. As the foundation of Econometrica's accounting system, Deltek GCS Premier has the capability of tracking, recording, integrating, and disseminating all financial information by project and across company. With Deltek's budgeting, we can monitor costs through budgeting and forecasting on a contract-by-contract basis. In addition, Econometrica utilizes Deltek's web-based Time and Expense (T&E) with ESS software to record and report labor hours. This T&E system allows Econometrica's offsite employees to report labor hours on a real-time basis.

3. Capability, Capacity, and Qualifications

Econometrica has extensive experience with social, economic, and fiscal impact studies using the latest analytical tools and data sources. We have completed a wide range of economic analyses, impact studies, and program evaluations over our more than 20-year history. Econometrica's economists, mathematicians, and statisticians have provided a wide array of analytical and other services, including socioeconomic impact studies, program evaluation, economic forecasts, cost-benefit studies, and other types of quantitative and qualitative studies. Section 3.1 provides brief descriptions of relevant projects on which Econometrica has worked. Section 3.2 provides more in-depth descriptions of several of these projects.

Since 2014, Econometrica has been engaged in various contracts with DOT and the Transportation Security Administration (TSA). For the latter, Econometrica has been hired to assess the direct, indirect, and induced impacts of airports, aviation support, and visitor spending, as well as apply its GIS ability to these assessments. For this TSA contract, Econometrica provides economic and statistical analysis, rulemaking development and support, and program management services. Specific projects under this contract include aviation regulatory analyses and database construction covering aviation and other modes of transportation. On these and other contracts, Econometrica's professionals have also used IMPLAN for socioeconomic impact assessment.

3.1. Past Projects

Program Management Support Services, 2014 to present, Arlington, VA. This project demonstrated the assessment of direct and induced impacts of airports, aviation support, and visitor spending, as well as GIS ability. Under a contract with TSA's Cross-Modal Division, Econometrica provides economic and statistical analysis, rulemaking development and support, and program management services. Multiple projects under this contract include aviation regulatory analyses and database construction covering aviation and other modes of transportation.

Evaluation of HUD's Office of University Partnerships University Programs, 2010 to 2012, Washington, DC. This project demonstrated survey design and administration. The evaluation had three primary goals: The evaluation had three primary goals:

1. To assess the types of projects undertaken with Office of University Partnerships (OUP) grant funds.
2. To observe the outcomes of those projects for the participating universities and the populations and communities they serve.
3. To analyze the influence of partnership structure, grant purpose, and program design on accomplished outcomes.

To achieve these goals, Econometrica and Abt Associates collected information on projects carried out using OUP grants awarded between 2005 and 2008. In addition to an analysis of data from OUP's database, the evaluation involved a web survey of approximately 75 OUP grantees funded between 2005 and 2008, followed by extensive telephone interviews to probe for greater detail about the activities and site visits to 9 grantees.

Jobs Preservation Impact of New York City’s Hotel-to-Condo Conversion Moratorium Bill, 2018 to 2019, New York, NY. This project demonstrated the use of IMPLAN. Econometrica analyzed the economic impact of New York City’s current moratorium on the conversion of hotels to condominiums in Manhattan. The report presented estimates of the social and economic costs and benefits of this law, particularly the direct, indirect, and induced output, jobs, and incomes impacts. The scope of analysis covered the growth of the hotel market, the creation of jobs, improvements in wages and income, and hotel-related taxes collect by the city. This study used IMPLAN models of Manhattan and of New York City as a whole.

Impact Analysis of Public Housing, 2014 to 2016, High Point, NC. This project demonstrated analysis of community and local economic impacts using IMPLAN. The Housing Authority of the City of High Point, NC, hired Econometrica to analyze the benefits, neighborhood impacts, and economic impacts of public and affordable housing around the High Point area. The resulting report estimated the social and economic costs and benefits of affordable housing in the City of High Point, including the benefits to residents and the community, the total value of public housing, the number of jobs created (temporarily and permanently) by affordable housing, and the impact on local area incomes. This study used IMPLAN models.

Economic Consultant, 2015, Houston, TX (2015). This project demonstrated the ability to analyze impacts on communities and local areas, including property values and jobs. The Houston Housing Authority contracted with Econometrica to provide support to analyze the site benefits, neighborhood impacts, and economic impacts of the development of new affordable housing on three sites around the Houston area. The study covered the number and types of jobs within commuting distance of housing, the impacts on neighboring property values and crime, and the attraction of additional investment to the area, the number of jobs created (temporarily and permanently), and the impact on local area incomes and poverty levels.

3.2. Past Performances

Econometrica, Inc. Program Management Support Services	
Contract No.	GS-23F-0048P; Order No. HSTS02-14-J-PES400
Value & Type	\$4,829,923; Firm Fixed Price
Role	Prime Contractor
Agency & Address	Transportation Security Administration (TSA) Cross-Modal Division (CMD), Economic Analysis Branch (EAB) 601 South 12th Street, Room E10-325N, Arlington, VA 20598-6028
Period of Performance	December 1, 2014, to November 30, 2015, plus 4 option years; 4 option years exercised to November 30, 2019
Technical Contact	Contracting Officer's Representative: Rasheed Khan, (571) 227-3427, Rasheed.Khan@tsa.dhs.gov TSA/CMD/EAB, 601 South 12th Street, Room E10-325N, Arlington, VA 20598-6028
Project Highlights	<ul style="list-style-type: none"> ✓ Rulemaking development and support. ✓ Economic and statistical database programming and development. ✓ Cost-benefit analysis and economic data analysis. ✓ Policy and program cost-benefit analysis of workers' compensation program.
Description of Contract	<p>Econometrica provides onsite and offsite support to the Transportation Security Administration (TSA) Economic Analysis Branch (EAB) of the Cross-Modal Division (CMD). Econometrica supports eight task areas: (1) research and analysis; (2) process development, analysis, and mapping; (3) economic data collection; (4) economic data analysis; (5) public comment support; (6) public meeting support; (7) technical writing; and (8) project management.</p> <p>1. Research and Analysis: Econometrica assists in collecting, organizing, analyzing, and documenting regulatory requirements; conducting research on the transportation industry; conducting analysis of existing regulations, industry standards, strategies, and practices pertaining to regulatory and deregulatory action and report findings; and researching and identifying the current state of security and risk on regulatory topics. Econometrica's past and ongoing activities in this task area include:</p> <ul style="list-style-type: none"> • Onsite Economist – Providing TSA with the continued presence of an onsite economist who supports all aspects of research and analysis. Econometrica has provided junior, midlevel, and senior (supervisory) onsite economists to TSA. • TSA Pre✓[®] Program Market Study – Econometrica provided TSA with data and GIS analyses to support a market study of TSA's Pre✓ Program that will help identify and prioritize areas to target advertising efforts to encourage enrollment in the Pre✓ Program. The analysis involved: <ul style="list-style-type: none"> ○ Assessing the distance between Pre✓ enrollment centers and where enrollees live, using an analysis at the ZIP Code level to protect the privacy of the enrollees. ○ Merging demographic data for more than 30,000 ZIP Codes with TSA data. ○ Using ESRI's ArcGIS software and several applications of GIS extraction, conversion, and overlay tools to develop analytical maps.

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Program Management Support Services

Description of
Contract
(Continued)

- **Prevailing Wages for Airport and Security Workers in Foreign Countries and Territories** – Econometrica researched wages for workers in the transportation and security industries at airports in the 121 countries and territories that were last points of departure (LPDs) for the United States. This study will allow EAB to compare the wages of airport and security workers in foreign countries with those of the United States, providing a point of analysis of operations at foreign LPDs. Econometrica also developed a uniform wage concept that allowed wages to be compared in a common currency and year. Finally, Econometrica developed a tool in Tableau that provided a visual display of the wages by allowing the user to select countries of the map to display their wages.
- **Canine Wage Research** – Econometrica conducted research to support an evaluation of compensation provided to TSA canine handlers. The research involved investigating compensation packages (including wage/salary, fringe benefits, and education) provided to non-TSA canine handlers used for detection/security purposes, focusing on explosive detection dog (EDD) handlers.

2. Process Development, Analysis, and Mapping: Econometrica researches and analyzes processes relating to the development of proposed regulations; identifies program elements necessary to execute regulations such as setting standards, compliance reviews, recurrence, updates/modifications, stakeholder outreach, and other essential processes; and develops and documents methodologies to integrate program risk management and emerging security risk into the business support process.

3. Economic Data Collection: Econometrica supports requirements of Regulatory Impact Analysis (RIA) and Final Regulatory Flexibility Assessment; gathers data to support population surveys of regulated industry; collects general industry data necessary to support data analysis; conducts assessments and gathers information of current security TSA programs; and assesses, develops, and documents risk scenarios for regulated industries. Econometrica’s activities in this area include:

- **Updating TSA and U.S. Department of Homeland Security (DHS) Regulatory Database** – Econometrica is updating a database of TSA and DHS regulatory analysis and data sources from security regulations developed by TSA and other DHS components. The resulting database will assist TSA economists in conducting future regulatory analyses by providing updated cost and benefit information in year 2016 dollars. This activity involves the following:
 - Updating and collecting (1) data sources used in the development of regulatory analyses and (2) economic estimates (i.e., benefits, costs, and other economic impacts) as well as enhancing functionality of the database through programming new displays, queries, and reports.
 - Providing a breakdown of costs by CFR section to aid decision makers with regulatory and deregulatory decisions.
 - Assigning costs to specific industries by NAICS code to illustrate the impact on sectors of the economy.

Econometrica, Inc. **Program Management Support Services**

Description of Contract (Continued)

- Providing a visual display in Tableau showing the cost impact of TSA rulemakings by NAICS code and CFR section across ZIP Codes and across States, thereby demonstrating the degree and distribution of the impact of rulemakings on areas of the country and industries.
- **Transportation Modal Database (TMD)** – Econometrica is building a database system of transportation modal sectors and completed one annual update, providing new sources, updating data, and restoring broken links. The system is designed to allow TSA researchers to quickly search for and be presented with the datasets needed for regulatory evaluations, guidelines, policy analysis, and other references. This activity involves the following:
 - Constructing a flexible search engine that uses metadata describing each dataset and presents the users with a number of predefined searches that act as shortcuts to quickly access data.
 - Providing TSA with updated data from existing sources and researching new sources of data that might provide additional relevant data elements. The data contained in the TMD will represent nearly 1,000 datasets described in a metadata database containing 31 discrete data elements for each dataset.
 - Providing baseline data on the following modal sectors at a minimum: Aviation (Airlines, Airports, Air Cargo, and Charter Jets); Mass Transit; Over-the-Road Buses (OTRB); Pipelines; Rail (Passenger Rail, Freight Rail); Trucking Intermodal.
 - Creating modal factsheets representing each of the sectors, employing data visualization (graphs, tables, and maps) to display the key facts about each mode in terms of volume of vehicles, cargo, passengers, and other data. Factsheets are for TSA internal reference and distribution and are updated annually.
- 4. **Economic Data Analysis:** Econometrica assesses the cost impact of regulatory action using a cost-benefit, cost-effectiveness, or break-even analysis; provides data and cost association based on developed risk scenarios; conducts international trade impact analysis and sensitivity (variability) analysis; assesses whether action will result in a significant economic impact on a substantial number of small entities; and conducts an Unfunded Mandates Reform impact analysis. Activities in this task are associated with several TSA rulemakings and analyses, including:
 - **Surface Transportation Vulnerability Assessments and Security Planning (VASP) Rule** – Econometrica assisted EAB to conduct a cost-benefit analysis of the Surface Transportation VASP Rule:
 - Econometrica updated the population of affected surface transportation entities, integrating information from TSA security grant records, Federal Motor Carrier Safety Administration (FMCSA) databases, industry databases, ticketing aggregators, and internet searches.
 - For the OTRB operator population, Econometrica conducted further analysis using SAS with the FMCSA database to determine the number of OTRB coaches and coach drivers affected by the VASP rule.

Econometrica,
Inc.

Program Management Support Services

Description of
Contract
(Continued)

Econometrica conducted research on the benefits associated with transportation security plans, integrated the results into an enhanced justification of TSA’s use of break-even analysis, and provided a literature summary.

- **Standardized Vetting, Adjudication, and Redress Services (SVAR) Rule** – Econometrica reviewed the draft Notice of Proposed Rulemaking (NPRM) and RIA documents and commented on each from the DHS Office of the General Counsel.
- **Surface Training NPRM** – Econometrica provided extensive support to TSA on the Surface Training NPRM RIA and Initial Regulatory Flexibility Analysis (IRFA):
 - Econometrica drafted the section on the NPRM’s benefits and wrote the section on and conducted analysis for the IRFA.
 - Conducted extensive research into the OTRB industry, including locating all active U.S. carriers traveling in or through major U.S. cities and metropolitan areas.
 - Conducted extensive research into the security and ancillary benefits of increased personnel training for surface (i.e., rail, public transit, motorcoach) modes of transportation.
- **Workers’ Compensation Program Cost–Benefit Analysis** – Econometrica assisted the Office of Human Capital to conduct a cost–benefit analysis evaluating two case management programs that handle workers’ compensation claims covering separate populations engaged in physically demanding jobs: TSA baggage screeners and Federal Air Marshals. Activities included:
 - Researching job requirements, performance standards, workforce conditions, occupational injuries, safety data, and program process descriptions through review of administrative record and claims reports and interviewing with more than 20 principal parties in the claims process.
 - Developing three policy alternatives to recommend as case management systems based on data analysis and interviews.
 - Evaluating costs and benefits of the three alternatives using a cost–benefit model that estimated costs based on labor costs associated with time spent for management of cases with different levels of injury and that estimated benefits using a linear regression model that assessed cost savings from lost production days under proposed management systems.
 - Recommending the case management system with the highest net benefits to TSA, considering lowest costs, least lost production days, and qualitative costs and benefits.

5. Public Comment Support: This task entails developing and managing a process that receives, sorts, tracks, records, reports, and supports public comments via the Federal Register process, to include instructing Government on the process, assisting through the various stages of the rulemaking process, assisting with the review and analysis of public comments, and providing indexes of comments with summaries of significant comments and final reports of public comment documents.

Econometrica, Inc.	Program Management Support Services
<p>Description of Contract (Continued)</p>	<p>6. Public Meeting Support: This task entails holding approximately 10 public meetings a year to support the regulatory agenda; participating in planning sessions to discuss meeting logistics; assisting in developing and preparing presentation material; assisting in logistical support to include locating facilities, advertising, managing registration, securing equipment, and providing onsite assistance including personnel and audio-visual equipment and providing personnel to take meeting minutes; preparing transcription of the meeting; and preparing a synopsis of minutes and action items from the transcript.</p> <p>7. Technical Writing: Econometrica provides onsite and offsite editors to edit rulemaking documents such as preambles, regulatory text, discussion papers, and other documents to support the regulatory justification suitable for publication in the Federal Register. Econometrica composes required process flow, discussion papers, presentation materials, technical documents, and other documents to support the rulemaking process within the specified format. Econometrica has also prepared publications for EAB describing TSA Economic Impact Analysis and Policy Analysis Guidance, as performed by EAB.</p> <p>8. Project Management: Econometrica assists in coordinating the planning and tracking of information and activities with TSA components to promote timely integration and to meet regulatory deadlines; prepare timelines, project briefings, and status reports to support the rulemaking process; participate and assist with the coordination of planning; and track information and activities as necessary with internal and external stakeholders to promote timely integration and adhere to project deadlines.</p>
<p>Relevance to SOW</p>	<p>Demonstrates the ability to perform aviation regulatory analyses and database construction covering aviation and other modes of transportation, including use of IMPLAN for socioeconomic impact assessment.</p>

Econometrica, Inc. Evaluation of HUD's Office of University Partnerships University Programs	
Contract No.	C-CHI-00977; Order No. CHI-T0003 (Prime Contract); Subcontract No. 27474
Value & Type	\$90,006; Time & Materials
Role	Subcontractor
Agency & Address	U.S. Department of Housing and Urban Development (HUD) Under subcontract to Abt Associates 4550 Montgomery Avenue, Suite 800 N, Bethesda, MD 20814
Period of Performance	December 31, 2010, to May 30, 2012; extended to September 28, 2012
Points of Contact	Contracting Officer's Representative: Amy Minzner, (617) 349-2314, Amy.Minzner@AbtAssoc.com Abt Associates, 4550 Montgomery Avenue, Suite 800 N, Bethesda, MD 20814 Contracting Officer: Kathleen G. Heintz, (301) 634-1730, Kathleen_Heintz@AbtAssoc.com Abt Associates, 4550 Montgomery Avenue, Suite 800 N, Bethesda, MD 20814
Project Highlights	<ul style="list-style-type: none"> ✓ Supported HUD's evaluation of four educational grant programs funded through the Office of University Partnerships ✓ Assessed and supported revision of protocol for interviews at minority-serving colleges and universities
Description of Contract	<p>HUD conducted an evaluation of four grant programs funded through its Office of University Partnerships (OUP): Historically Black Colleges and Universities, Hispanic-Serving Institutions Assisting Communities, Alaska Native/Native Hawaiian Institutions Assisting Communities, and the Tribal Colleges and Universities Program. The programs fund community development activities in disadvantaged communities and encourage minority-serving colleges and universities to contribute their technical expertise, organizational capacity, and resources to local community development efforts. Through this subcontract with Abt Associates, Econometrica helped develop a telephone survey and site visit protocol and then conducted 29 telephone interviews and 5 site visits with minority-serving colleges and universities.</p> <p>The evaluation had three primary goals: (1) to assess the types of projects undertaken with OUP grant funds, (2) to observe the outcomes of those projects for the participating universities and the populations and communities they serve, and (3) to analyze the influence of partnership structure, grant purpose, and program design on accomplished outcomes. To achieve these goals, Abt and Econometrica collected information on projects carried out using OUP grants awarded between 2005 and 2008. In addition to an analysis of data from OUP's database, the evaluation involved a web survey of approximately 75 OUP grantees funded between 2005 and 2008, followed by extensive telephone interviews to probe for greater detail about the activities and site visits to 9 grantees. The evaluation culminated in a final written report to HUD.</p> <p>Econometrica's specific role in the OUP evaluation included the following tasks:</p> <ul style="list-style-type: none"> • Task 4. Telephone Survey and Site Visit Protocol. Econometrica reviewed the draft telephone survey and site visit protocol for clarity and completeness and provided written feedback on the draft instruments, including a summary of suggested changes and other comments. • Task 5. Telephone Interviews and Site Visits. Econometrica completed 29 telephone interviews with OUP grantees. In addition, Econometrica conducted five site visits, including scheduling the onsite interviews, completing the visit, and preparing post-visit reports.

Econometrica, Inc.	Evaluation of HUD’s Office of University Partnerships University Programs
Description of Contract (Continued)	<ul style="list-style-type: none"> • Task 6. Final Report. Following the site visits, Econometrica worked with Abt to discuss findings and identify themes for the final report. HUD planned to make the final, approved report available on its HUD USER website.
Relevance to SOW	Demonstrates understanding of educational institutions and, specifically, the ability to quantify impacts of programs aimed at increasing access of disadvantaged communities to universities.

Econometrica, Inc. Impact Analysis of Public Housing	
Contract No.	20143202
Value & Type	\$30,473.13; Firm Fixed Price
Role	Prime Contractor
Agency & Address	Housing Authority of the City of High Point, NC (HPHA) 500 East Russell Avenue, High Point, NC 27261/27260
Period of Performance	December 30, 2014, to January 29, 2015; extended to January 31, 2016
Points of Contact	CFO: Tracy Gann, (336) 878-2326, TGann@hpha.net HPHA, 500 East Russell Avenue, High Point, NC 27261/27260 Contracting Officer: Alan M. Oakley, (336) 878-2322, AOakley@hpha.net HPHA, 500 East Russell Avenue, P.O. Box 1779, High Point, NC 27260/27261
Project Highlights	<ul style="list-style-type: none"> ✓ Data analysis. ✓ Data collection. ✓ Impact analysis.
Description of Contract	<p>HPHA is dedicated to providing decent, safe, sanitary, and affordable housing to low-income families, the elderly, and the disabled through administration of public housing programs, the Section 8 Housing Assistance Payment program, and other U.S. Department of Housing and Urban Development-funded housing and community development programs targeting vulnerable populations. Seeking to quantify the benefits of its programs, HPHA contracted with Econometrica to analyze the benefits, neighborhood impacts, and economic impacts of public and affordable housing around the High Point area.</p> <p>Econometrica estimated the direct and indirect economic impacts of housing projects and housing assistance on the local economy, as measured by employment, tax revenue, income, and gross product (overall economic output). The team estimated the indirect and induced economic impacts of the housing project and its employees on the area using regional economic multipliers for the state of North Carolina and the High Point area. We inputted data, rates, and information from public sources into an IMPLAN model to calculate the economic impact of all HPHA programs at the neighborhood and city levels over a 10-year period. Our final report summarized the results, including the benefits to residents and the community, the total value of public housing, the number of jobs created (temporarily and permanently) by affordable housing, and the impact on local area incomes. HPHA planned to use the report to communicate the benefits of its programs to its board and other stakeholders.</p>
Relevance to SOW	Demonstrates the facility in using a standard modeling system, IMPLAN, to estimate regional economic effects of investment and spending, and the ability to communicate benefits from public funding of projects to government and stakeholders.

4. Project Approach

4.1. Purpose

The purpose of the study is to research and write reports and studies and associated materials about the economic, social, and community impacts of West Virginia's 24 airports included in the NPIAS. These products will be useful for WVAC as well as the airports themselves to communicate the value of the airports to the community and to government officials, and the reports will support planning and funding decisions.

The analysis and reports will principally focus on the current year, 2019 (or as agreed at the kickoff meeting). However, projections of future terminal activity from FAA or other sources will be used when appropriate to indicate future trends.

4.1.1. Project Approach by Task

Task 1. Overall Impact of the State's Airports on the Economy of the State

The study will estimate the direct, indirect, and induced economic impacts on West Virginia's economy of activities by the NPIAS airports, related businesses, and spending by visitors using the airports. The benchmark year of the estimate will be the current year (2019), and high-level trends to 2023 will be inferred, drawing on FAA projections of airport activities and projections of population and business activity published by the Bureau of Business and Economic Research (BBER) at West Virginia University.

An IMPLAN state model will provide state economic multipliers, which will be applied to airport and related business spending and employment as well as airport visitor spending. The measures of economic impact include employment by industry, wages and household income, profits by industry, taxes paid by airport-related employees and businesses, and the state GDP generated by airport and visitor activities. Data given in the IMPLAN model databases will be combined with data published by the U.S. Bureau of Labor Statistics, Census Bureau, FAA, BBER, and other sources.

We will obtain data on the direct impacts of activities of the airports (i.e., spending by airports, their employees, related businesses, and visitors using the airports) mainly by aggregating the individual airport data generated in Task 2.

Task 2. Evaluation of Individual NPIAS Airports Impacts on State, Region, and Locality

Direct Impacts

Data about direct impacts of the individual airports are critical to the quality of the study overall. Types of data include survey data of businesses or visitors, numbers of visitors, and airport reports of their spending and employment.

The 24 NPIAS airports cover a range of size and scope, from commercial hubs, such as Yeager Airport in Charleston, to smaller general aviation airports. Some airports process a large amount of cargo; some have significant military operations; and some handle commercial visitors for tourism. The requirement for this task is to define criteria and metrics that can be applied consistently to all of the airports, enabling comparisons and rankings to be made among them.

The data collection planned for this study falls under several main headings:

- Current-year airport spending on operations and employees, the numbers of employees, and any capital spending will be estimated by each airport administrator. Capital spending can be lumpy (i.e., vary greatly from 1 year to the next); several years of capital spending will be requested to derive an annual average. Econometrica will design, distribute, and evaluate results of a standardized query to each airport.
- Spending and employment for business onsite—aviation services, restaurants, contractors, and entertainment services such as helicopter tours—should be estimated by the businesses. Econometrica will design, distribute, and evaluate results of a standardized query to each major business.
- To the extent possible, direct impacts will include spending and employment for businesses that serve the airports and are located offsite. Examples include rental cars and contractors serving air services and activities such as freight. When a business also serves activities that are not airport-related, the share of impacts attributable to airport activities will be estimated. Econometrica will design, distribute, and evaluate results of a standardized query to each major business.
- While more visitors arrive by commercial carriers than by general aviation, an estimate of the number of visitors will be obtained from FAA or other sources. The share of visitors that are for business versus pleasure and their spending by type while visiting the area will be determined by a survey of visitors. Econometrica will design, distribute, and evaluate results of a standardized survey of visitors.

Since the survey and query results will cover only a sample of entities, Econometrica will infer the full direct impacts from the sample using standard methodologies. For all data collection from airports, businesses, and visitors, Econometrica will need and request the support and approval of the airports. We will handle data collected as proprietary and aggregate them in reports.

Taxes (i.e., local, state, and federal) also are considered a direct impact, and we will estimate the direct spending associated with them. These can include sales taxes, income taxes, and property taxes.

Indirect and Induced Impacts

For estimating indirect and induced impacts, Econometrica will construct IMPLAN models relevant to each of the 24 airports. In general, the following will occur:

- We will compute the local impacts using a model for the county in which the airport is located. In some instances, it will be more appropriate to associate an airport with a locality of two or more counties.
- Normally, the models will cover only West Virginia counties. However, in special cases, adjacent counties from other states (such as Kentucky or Maryland) will be included in a multicounty region.

- Larger regions within the state will be defined as aggregations of counties. Different sections of the state have different economic growth prospects, as discussed by BBER publications that will serve as the basis for defining several regions. Econometrica will estimate the regional impacts of the airports within those regions.
- Econometrica will estimate the indirect and induced impacts on the state as a whole.

Impacts will be estimated, in all regions, for employment, employee compensations, value-added (i.e., regional GDP), and output (sales revenue) in terms of the 528 industry sectors and aggregated sectors provided by IMPLAN. The aggregated summary will include categories of activity and impact similar to the tables of economic impact of aviation by state published by FAA.

Since the classifications of employees, employee compensation, and the others are defined consistently for all airport impacts, the 24 airports can be compared and ranked in terms of those impacts. Econometrica's report will include ranked tables.

Task 3. Economic Benefits in Planning and Resource Allocation

The purpose of this task is to provide information that is useful in planning public investment in airports in upcoming years. While funding decisions will reflect a variety of considerations, this task will support decision making by estimating airport economic performance in the sense of economic benefits generated.

- For each of the NPIAS airports, we will tabulate the direct and total economic impacts (from Tasks 1 and 2), highlighting the revenues directly generated by the airports in terms of fees paid to airports and tax revenue generated by businesses and visitors. The economic impacts will be related to activity measures, such as number of operations.
- Econometrica will estimate the local, regional, and state share of economic activity attributable to each airport. For instance, a particular airport would be reported as generating X jobs, directly and indirectly, that are Y percent of the total employment in the region. Such shares of regional activity will be reported for employment, earnings, value-added (GDP), and output (sales revenue).
- For each airport, we will give a summary discussion of its role in the local, regional, and state economy.
- Optionally, WVAC may request that Econometrica calculate and report ratios of economic benefits to public funding for each airport. For this subtask, WVAC or its designee would provide data on the public funding to be included.

Task 4. Meetings, Reports, and Presentation

A kickoff meeting will be held at WVAC offices, or another location agreed on, within 2 weeks of award. We can substitute a video conference if an in-person meeting is inconvenient for the client. The meeting will cover agreements about schedule, Econometrica's plan for collecting data, the amount of support the airports will give to Econometrica in the design and conduct of data collection and surveys, contact persons at the airports to arrange for surveys and provide airport data as agreed on, regions defined for the analysis, and any other issues regarding the successful performance of the work. A letter summarizing the agreements reached will be prepared and sent to the client within 1 week of the meeting date.

Econometrica will provide the final technical report according to high-quality, professional standards. It will include tabulations and graphics presenting the data and analytical findings. Econometrica’s editorial staff will edit the document. The final technical report and associated materials will be produced according to high-quality, professional standards. Econometrica’s editorial staff will edit the final report, which will include an executive summary written in clear, nontechnical language that describes the purpose of the study and its findings of the direct, indirect, and induced impacts as they relate to economic activity, earnings, and jobs in the local areas, regions, and state.

The team will provide a final in-person presentation to WVAC or other stakeholders; Econometrica will deliver copies of the slides prepared for the presentation to WVAC. Additional in-person or video conference presentations may be requested for additional cost. Further, Econometrica is available to support WVAC when it publicizes the completed study. Additional materials (e.g., factsheets, FAQ documents) may be requested for additional cost.

4.2. Work Plan and Schedule

The contract period will begin upon award and will last 1 year. Table 2 provides a proposed project schedule and deliverables.

Table 2. Proposed Project Schedule and Deliverables

Activity	Deliverables	Date
1. Kickoff meeting. With WVAC at its offices or, if requested, by video conference.	Within 1 week of the meeting, notes on meeting and any agreements and unresolved questions are sent to primary contact.	Meet as soon as feasible after award
2. Direct impacts. Data collection and surveys from airports, businesses, and visitors. Evaluate survey results.		Kickoff to 6 months after award
3. Indirect and induced impacts. Purchase and receive IMPLAN data; build and test models; and perform IMPLAN runs to estimate indirect and induced impacts data.		6 months to 9 months after award
4. Economic benefits in planning and resource allocation. Tabulation of economic benefits by airport and regions; determination of each airport’s relative economic strengths and weaknesses.		8 months to 10 months after award
5. Documentation and coordination. Complete and edit technical and executive summary reports. The full report will present findings, assumptions, methods, and data sources, as well as glossary and references. The executive summary will contain major findings written in layperson’s terms and suitable for media circulation.	Draft materials delivered to primary contact for review if requested.	10 months to 11 months after award
6. Final report presentation(s).	Presentation agendas, slides; hold meetings.	11 months to 12 months after award
7. Deliver final written reports.	Technical and executive summary reports.	11 months to 12 months after award

Table 3 provides the personnel and task matrix, in hours. The proposed workload can be easily absorbed given the workload of proposed staff. Airport personnel will be expected to make themselves available for interviews in person or over the phone; to provide necessary data on airport operations, revenues, and costs; and to provide regular communications with the Econometrica Team, as needed, over the course of this project.

Table 3. Staff-Loading Chart

Task	Dennis Stout, Project Manager	Radford Schantz, Senior Economist	Jerome Davis, Airport Economist	Laurel Leitner, Analyst	Total
Kickoff (included in Task 4)	20	20	10	10	60
1. Direct impacts	15	55	200	450	720
2. Indirect and induced impacts, IMPLAN	15	200	75	0	290
3. Economic benefits	15	100	100	0	215
4(a). Prepare draft	10	100	100	40	250
4(b). Final presentation	20	20	10	0	50
4(c). Deliver final report	5	5	5	0	15
Total	100	500	500	500	1600

Appendix A: Econometrica Team Resumes

ECONOMETRICA, INC.

- *Dennis Stout, M.B.A., M.A.*
- *Radford Schantz, Ph.D., M.A.*
- *Jerome Davis, M.Sc., PMP*
- *Laurel Leitner*
- *Jonathan Fusfield, M.B.A.*

DENNIS STOUT, M.B.A., M.A.
Project Manager

CAPABILITIES SUMMARY

With more than 25 years of experience, Mr. Stout has advised numerous federal agencies, including the U.S. Departments of Defense, Navy, Army, Air Force, Housing and Urban Development (HUD), Veterans Affairs, and Agriculture, as well as the GSA, Federal Judiciary, U.S. Small Business Administration, U.S. Election Assistance Commission, and others on housing subsidy and financing programs, asset management, risk assessment, program design and implementation, financing alternatives, grants management, and accounting and reporting processes.

RELEVANT EXPERIENCE

Econometrica, Inc., 2013 to present

Mr. Stout serves as Director of Housing and Community Development at Econometrica, where he specializes in real estate, housing and financial advisory services, financial modeling, federal accounting and budgeting, and portfolio and asset management strategies for public-sector entities. He has managed the following engagements:

- *HUD, 2014 to 2018.* Mr. Stout served as Project Manager for the evaluation of the Rental Assistance Demonstration program, which provides public housing authorities (PHAs) with the ability to access private sources of capital to finance the rehabilitation of public housing projects. He is also Project Manager to support the American Housing Survey; provide quality control and training for Comprehensive Housing Market Assessments; analyze risks to the Federal Housing Administration's (FHA) mortgage insurance programs; monitor financial data collected on public housing projects; and provide technical assistance to public housing and community development program recipients.
- *Office of the Mayor of New York City, 2018 to 2019.* Mr. Stout was Project Manager for a project that analyzed the economic impact of limiting hotel-to-condominium conversions.
- *U.S. Marine Corps, 2017 to 2019.* Mr. Stout is Project Manager to provide statistical support and analysis for an external financial audit of the U.S. Marine Corps as a subcontractor to Kearney & Company.
- *U.S. Navy, 2015 to 2016.* Mr. Stout worked as Project Manager to provide statistical support and analysis for an external financial audit of the U.S. Navy as a subcontractor to Cotton & Company.
- *Public Housing Authorities, 2015 to 2016.* Mr. Stout was Project Manager on projects with PHAs in Houston, TX, and North Carolina to analyze economic impacts of public housing programs and projects.
- *U.S. Election Assistance Commission, 2014 to 2016.* Mr. Stout was Project Manager for a supportive services contract to provide pre- and post-audit support to grant recipients to improve election systems in all states and territories.

Alvarez & Marsal, 2005 to 2013

Mr. Stout was a Managing Director at Alvarez & Marsal Real Estate Advisory Services, LLC, for more than 7 years, where he managed the following engagements:

- *Mortgage Bankers Association, 2010 to 2011.* As subcontractor to the Federal Practice Group, Mr. Stout led a study of the performance of multifamily and healthcare facilities mortgages insured by FHA over the past 20 years.
- *U.S. Department of the Navy, 2006 to 2013.* Mr. Stout advised on more than 60 market and feasibility studies for potential Enhanced Use Lease (EUL) projects at NSB New London, CT; NSA Annapolis, MD; MCB Quantico, VA; NSA Pensacola, FL; NSY Portsmouth, ME; NSA Millington, TN; NRC Solomons, MD; NSA Mechanicsburg, PA; NSA Crane, IN; NS Norfolk, VA; NSA Washington, DC; NSA Anacostia, DC; and other locations. He supported developer selection at NSA Pensacola; NSB New London; NSY Portsmouth; NSA Millington; NSA Norfolk; NSF Indian Head, MD; NAS Patuxent River, MD; and NRC Solomons.
- *Office of the Secretary of Defense/Housing & Competitive Sourcing, 2005 to 2013.* Mr. Stout provided oversight and analysis of the military housing privatization program, including improving the monitoring, reporting, and financial management of this program and preparing the credit reform reestimates for military housing direct loans and loan guarantees for the past 3 years.
- *U.S. Department of the Air Force, 2005 to 2012.* Mr. Stout assisted with EUL projects at Patrick AFB, FL, McConnell AFB, KS, and Lackland AFB, TX, and on military housing privatization projects for Western Group and AMC Group.
- *U.S. Department of the Army, 2005 to 2009.* Mr. Stout supported EUL projects at Yuma Proving Ground, AZ, for the development of a hot-weather test complex, at Camp Navajo in Arizona for the development of an eco-industrial park, at Fort Huachuca, AZ, for the development of airport property, and at Selfridge Air National Guard Base, MI, for a mixed-use development.
- *HUD, 2005 to 2006.* Mr. Stout analyzed the risks to HUD of selling subsidized multifamily mortgages held by HUD. His analysis focused on the value to the government and constraints of meeting the loan program's underlying policy objectives to preserve affordable housing.
- *National Capital Revitalization Corporation, 2005 to 2007.* Mr. Stout performed a market study of a site in the District of Columbia for potential development as an office building, and he evaluated a development partner for a 25-acre site for mixed use in the city.

Ernst & Young, 1999 to 2005

As a Senior Manager at Ernst & Young for 7 years, Mr. Stout led the following engagements:

- *U.S. Small Business Administration, 2003 to 2005.* For 2 years, Mr. Stout assisted in addressing issues in its accounting and reporting processes and performed independent reviews the credit subsidy models used to budget and report on the following programs: 7(a) Loan Program, Disaster Loans, 504 Loan Program, and Small Business Investment Company Program.

- *U.S. Department of Veterans Affairs, 1998 to 2005.* For 7 years, Mr. Stout assisted with financial statement reporting and budgeting for housing credit programs, including the development of a credit subsidy model that linked the subsidy costs of the Veterans Loan Guaranty program with the vendee loan program and the guaranteed loan sale program.
- *U.S. Department of Agriculture, 2004 to 2005.* Mr. Stout reviewed the subsidy model for the Business & Industry Guaranteed Loan Program and recommended a statistical approach to estimating defaults and recoveries in that program.
- *HUD, 2000 to 2003.* For 3 years, Mr. Stout managed the HUD 601 project, which marketed and sold a pipeline of \$1 billion in defaulted single-family mortgages. The goal of this program is to reduce FHA's default costs. He developed and ran a model to evaluate bids and estimate the hold value to the government.
- *HUD Multifamily Assisted Housing, 1997 to 1999.* Mr. Stout managed a project to develop guidelines to ensure adequate funding for HUD's project-based Section 8 contract amendments and renewals. He assisted in the development and setup of HUD's Mark-to-Market program, which restructured FHA-insured multifamily mortgages for projects whose Section 8 contract rents were being marked down to market. He developed loan underwriting guidelines for mortgage restructuring, created Operating Procedures for the HUD office responsible for implementing the program, estimated staffing needs, developed position descriptions, identified data system requirements, analyzed assets to determine program eligibility, and estimated long-run cost savings to the Section 8 program.
- *U.S. Department of Agriculture/Commodity Credit Corporation, 2000 to 2001.* Mr. Stout recommended solutions to the Commodity Credit Corporation's financial management processes that resulted in a clean financial statement opinion. He reviewed the credit subsidy models for the export guarantee and PL 480 loan programs. He also reviewed the credit subsidy estimate for the business and insurance guaranteed loan program of the Rural Utilities Service.
- *GSA, 1998 to 2003.* Mr. Stout recommended an optimum warehouse portfolio strategy and reviewed the GSA's construction program to identify measures to reduce cost overruns.
- *Administrative Office of the U.S. Courts, 1999 to 2000.* Mr. Stout led an 18-month study of the Federal Judiciary's facilities program, recommending improvements in planning, courthouse design, construction management, and operations.

Hamilton Securities, 1997 to 1998

As Senior Analyst, Mr. Stout worked on the Program Financial Advisor contract that monitored the performance of HUD's sale of subsidized and unsubsidized multifamily and single-family mortgages, and he performed the analysis that estimated the budgetary impact of the Mark-to-Market Program.

Office of Management and Budget (OMB), 1990 to 1997

As budget examiner in the Housing/Federal Emergency Management Agency Branch and Veterans Affairs Branch of OMB, Mr. Stout had responsibility for budgetary, regulatory, and legislative issues involving a wide range of government loan and assisted housing programs: mortgage insurance for multifamily housing construction, rehabilitation, and refinancing; loan

guarantees for manufactured housing and home improvements; project-based Section 8 and other forms of housing assistance; capital grants and operating assistance for troubled multifamily housing projects; grants, loans, and operating subsidies for elderly and handicapped housing; grants, operating subsidies, and mortgage insurance for the preservation of low-income housing; mortgage insurance for the construction and rehabilitation of hospitals and nursing homes; multifamily mortgage coinsurance; single-family mortgage insurance for high-risk home buyers for the purchase or refinancing of condominiums and to finance home rehabilitation costs; and veterans' hospital, nursing home, and cemetery programs.

Education

- M.B.A., Columbia University.
- M.A., Politics, Princeton University.
- A.B., Economics and Political Science, University of California at Berkeley.

Conferences

- Moderator on Trends in Asset Management (June 2013). Association of Defense Communities. Washington, DC.
- Moderator on Army, Navy, and Air Force Enhanced Use Lease Briefing (January 2012). Association of Defense Communities. Miami, FL.
- Stout, D. *Through the Looking Glass: A Brief Glance at Real Estate Investment*. (August 2012). Association of Defense Communities. Monterey, CA.
- Stout, D. *Enhanced Use Lease Authority and Renewable Energy*. (September 2012). National Council for Public-Private Partnerships. Washington, DC.

Publications

- Bordenave, J., & Stout, D. (2017). Real estate analysis as a tool for program evaluation. *Cityscape*, 19(3), 475–485.
- Ruiz, D., Stout, D., & Herlihy, C. (2017). Use of genetic matching in program evaluation: The case of RAD. *Cityscape*, 19(2), 337–349.

RADFORD L. SCHANTZ II, PH.D., M.A.
Senior Economist

CAPABILITIES SUMMARY

Dr. Schantz, an economist with strong technical, writing, and communication skills, has more than 35 years of experience leading and performing economic impact and policy analysis. He has performed, written, and presented analyses for Government policies, regulations, and legislation for a wide variety of audiences.

RELEVANT EXPERIENCE

Econometrica, Inc., 2018 to present

Dr. Schantz's initial areas of work include regulatory analysis as well as national and regional economic impact analysis.

U.S. Department of the Interior (DOI), Bureau of Ocean Energy Management (BOEM), 1996 to 2018

Dr. Schantz attained the position of Supervisory Economist, supervising and performing economic and policy analysis of energy issues.

- **Oil and gas and renewable energy policy:** Dr. Schantz was responsible for developing new policy options for offshore energy supply and regulation. Most recently, he designed options for new fiscal terms for leases in the shallow water Gulf of Mexico, applying statistical analysis (using Stata and SAS) of decommissioning activity and economic limits (2018). To inform policy initiatives, he wrote the Statement of Work for a \$1 million contract applying international tax analysis to comparison of petroleum fiscal systems. He presented fiscal system concepts and analysis in Reykjavík, Iceland, at “Oil and Gas Sector Regulation and Long-Term Management in the Arctic,” a workshop sponsored by the U.S. Department of State (2015). Collaborating with the Office of Renewable Energy Programs, he helped administer wind lease auctions using a complex, cloud-based system.
- **Models and input-output:** Dr. Schantz programmed a partial equilibrium model of the U.S. energy market and applied it to examine supply-side policies for greenhouse gas (GHG) reduction, writing “Fossil Fuel Production Limits for GHG Reduction” (2017). He built real options models to address optimal timing and design for oil and gas leasing with social costs, coauthoring “Optimal Management of Oil Lease Inventory: Option Value and New Information” (2002), and he forecasted Government minerals revenues using SAS. In the input-output area, Dr. Schantz researched and wrote about trade in value added and comparative advantage using the Organisation for Economic Co-operation and Development's Inter-Country Input-Output accounts, and participated in the design of BOEM's “MAG-PLAN” approach to IMPLAN-based regional economic modeling. He also applied REMI models to regional economic impact estimation.
- **Regulatory:** Dr. Schantz oversaw and contributed to complex regulatory and cost-benefit analyses done by BOEM and cooperating agencies, including those performed on the Air Quality rule, Marine Mammal Protection Act rule, Renewable Energy rule, Financial Risk rule, Arctic rule, and Well Control rule. Earlier, he helped create the implementing regulations for the Deepwater Royalty Relief Act (1995).

DOI, U. S. Bureau of Mines, 1980 to 1996

- **Legislative analysis:** From 1992 to 1994, as a member of the DOI Task Force on Royalties, Dr. Schantz analyzed legislation for reforming Federal mining royalties and estimated potential impacts on the United States and its regions of reforms, utilizing IMPLAN. Presentation and advocacy abilities were demonstrated in a presentation to the Secretary of the Interior and officials of the White House, the Secretary's office, the departmental Congressional Affairs office, and other agencies involved in the task force. Dr. Schantz participated in large field hearings and conferences, made presentations to a congressman and staff members, and prepared parts of the Bureau Director's congressional testimony.
- **Modeling and input–output:** Dr. Schantz led the department's contribution to preparation of the U.S. Bureau of Economic Analysis's (BEA) satellite accounts for minerals (1994). He built and applied rural–urban regionalized computable general equilibrium models of the U.S. economy on the General Algebraic Modeling System (GAMS) platform (1993). He completed numerous regional economic impact studies using IMPLAN; some of these studies supported Federal management of lands with sensitive environments, such as the northwest spotted owl region. He contributed detailed data collection and estimation for the 1982 U.S. Input–Output Table, on detail to BEA.

Resource for the Future (RfF), 1973 to 1980

Dr. Schantz was a research assistant at RfF. His first publication there was, “Materials Requirements and Economic Growth,” as co-author.

Education

- Ph.D., Economics, University of Maryland, 1995.
- M.A., Economics, George Washington University, 1984.
- M.A., Philosophy, Georgetown University, 1983.
- B.A., Philosophy, Syracuse University, 1972.

Technical Skills

- General Programming: C++, C#, .Net.
- MS Excel: @Risk, Crystal Ball, VBA.
- Statistics and Modeling: SAS, Mathematica, Stata, Interdyme, GAMS, IMPLAN, REMI.
- Database: MS Access, SQL Server.

Publications

- Schantz, R. (1994). Purpose and Effects of a Royalty on Public Land Minerals. *Resources Policy* 20(1), 35–48. [https://doi.org/10.1016/0301-4207\(94\)90039-6](https://doi.org/10.1016/0301-4207(94)90039-6).
- Schantz, R., Radcliffe, S., & Fischman, L. (1981). *Materials Requirements and Economic Growth: A Comparison of Consumption Patterns in Industrialized Countries*. Washington, DC: Resources for the Future.

Reports and Papers

- Schantz, R. (2018). “Shallow Water Gulf of Mexico Fiscal System.” BOEM.
- Schantz, R. (2018). “Economic and Legal Issues for Deepwater Port Rental.” BOEM.

- Schantz, R. (Ed.). (2011). *Comparative Assessment of the Federal Oil and Gas Fiscal System*. Retrieved from <https://www.boem.gov/Oil-and-Gas-Energy-Program/Energy-Economics/Fair-Market-Value/CERA-Final-Report.aspx>.
- Schantz, R. (2002). “Mean-reverting Random Oil Prices: Regression Models and Approximations for Valuing Real Options.” Minerals Management Service (MMS).
- Schantz, R. (2001). “The Option Value of Alaska's Offshore Oil and Gas.” MMS.
- Auction Format Reengineering Team. (1999). “A Two-part Bid Filing System and Related Options for Increasing Bidding Competition to Assure Receipt of Fair Market Value.” MMS.
- Schantz, R. (1995). “A Dynamic Regional Model.” Bureau of Mines.
- Schantz, R. & United States (1992). “Regional Effects of Minerals Development.” Cited in Schamberger, M., Charbonneau, J., Hay, M., & Johnson, R. (1992). *Economic Analysis of Critical Habitat Designation Effects for the Northern Spotted Owl*.
- Secretary's Task Force on Mining Royalties. (1993). *Economic Implications of a Royalty System for Hardrock Minerals*. U.S. Department of the Interior.
- Schantz, R., & United States. (1990). *Minerals in the East Mojave National Scenic Area, California*. Spokane, Wash: The Center.

Conference Presentations:

- Schantz, R. (2016). “Fossil fuel production limits and GHG reduction.” Submitted to Eastern Economic Association Annual Meeting, New York, NY.
- Schantz, R. (2015). “Federal OCS fiscal system,” State Department-sponsored workshop, Oil and Gas Sector Regulation and Long-Term Management in the Arctic, Reykjavík, Iceland.
- Schantz, R. & Stromquist, W. (2014). “Comparison of petroleum fiscal systems and auctions.” Allied Social Science Associations. Philadelphia, PA.
- Schantz, R. & Stromquist, W. (2009). “Bidding model for alternative energy sites offshore.” Eastern Economic Association. Philadelphia, PA.
- Schantz, R., Rothkopf, M & Upton, L. (2005). “Optimal management of oil lease inventory: Option value and new information.” Eastern Economic Association. New York, NY.
- Schantz, R. (2001). “Natural resources as perpetual real options.” Eastern Economic Association. New York, NY.
- Schantz, R. & Davis, G. (2000). “Selling oil leases: a long-term real options analysis” (alternate title: “Risk and return to the government of oil lease sales”). Allied Social Science Associations. Boston, MA.
- Schantz, R. (1998). “Valuing unexplored mineral properties by option pricing.” Allied Social Science Associations. Chicago, IL.

- Schantz, R. (1996). “Natural resource accounts for southeast Utah: Quantity and value of services provided by the region's natural capital.” Southern Regional Science Association. Washington, DC.
- Schantz, R. & Kilkenny, M. (1995). “Resource depletion in an open economy: CGE analysis using extended national accounts.” Allied Social Science Associations. Washington, DC.
- Schantz, R. (1994). “Dichotomous choice models for contingent valuation.” U.S. Interior Department Nonmarket Valuation Group.
- Schantz, R. & Kilkenny, M. (1993). “A metro/nometro general equilibrium model of USA and applications to natural resource policy analysis.” Southern Regional Science Association. Washington, DC.
- Schantz, R. (1992). IMPLAN Activity Analysis Seminar. U.S. Forest Service. Ft. Collins, CO.

JEROME B. DAVIS, M.SC., PMP
Airport Economist

CAPABILITIES SUMMARY

Mr. Davis has more than 10 years of experience working as a data and analytics lead in the private and public sectors. Areas of expertise include data analytics, cost-benefit analysis, economic impact analysis, forecasting, and regulatory analysis. Mr. Davis is a supervisor in Econometrica's Data and Analytics Group and conducts regulatory and data analysis in the transportation, energy, and healthcare sectors. He has functioned as project manager or task lead in numerous transportation and regulatory projects. At the Centre for Spatial Economics, Mr. Davis conducted econometric forecasting and modeling and applied economic impact analysis to the labor market, childcare, nonprofit, financial, and transportation sectors. In the childcare sector, the results of his analysis were used to shape Canadian childcare policy. At the U.S. Federal Aviation Administration (FAA), Mr. Davis was part of the forecasting branch of the Aviation Policy and Plans Office and was responsible for producing a variety of aviation forecast products. He performed risk analysis on the forecasts and was his team's aviation data specialist, providing specialized data pulls to various FAA stakeholders. He holds an M.Sc. in Economics, producing a master's thesis on the regulation of the London, United Kingdom, airports.

RELEVANT EXPERIENCE***Econometrica, Inc., 2014 to present***

Mr. Davis assists Econometrica with a range of roles and duties:

- Project Manager and Assistant Project Manager on the following projects for the Office of the Secretary of Transportation:
 - o Analyzing and evaluating five airline passenger protection rules related to musical instruments, tarmac delays, and frequent flyer miles. Collecting data on the impact of the proposed requirements on passengers and carriers through research and review of previous analyses of the benefits and costs associated with the transportation of musical instruments (September 2014–August 2017).
 - o Conducting a regulatory evaluation on the use of mobile wireless devices for voice calls on aircraft. Analysis undertaken included estimating the costs and benefits from making and being exposed to voice calls for airline passengers, which includes valuing benefits from participating in previously banned activities and valuing cost of annoyance (May 2014–August 2016).
 - o Collecting data and other relevant information in support of a proposed rulemaking on increasing accessibility for persons with disabilities on aircraft (August 2016–December 2016).
- Assistant Project Manager on an information and communication technology (ICT) rulemaking concerned with updating Section 508 and Section 255 and guidelines that are used to ensure that ICT is accessible to persons with disabilities (July 2014–January 2017).

- o For the final Regulatory Impact Analysis (RIA), updating data used for the preliminary RIA, and reestimating costs and benefits of the rulemaking in response to comments.
 - o Conducted research and analysis in support of the preliminary RIA.
- Task Lead on evaluating new prospective fees for cost recovery for the Bureau of Ocean Energy Management. Activities included:
 - o Identifying and describing potential cost recovery fees and prioritizing them in terms of feasibility of implementation, estimating potential revenues generated by the prospective cost recovery fees, and providing recommendations for implementing the prospective cost recovery fees (March 2016–November 2016).
 - o Recalculating current and prospective cost recovery fees and providing additional client-specified cost recovery activity information. Developing new activity-based costing codes and providing support documents for potential implementation of revised codes (April 2017–March 2018).
- Served as Assistant Project Manager for the Pipeline and Hazardous Materials Safety Administration contract and was the Lead Analyst on several petitions and rulemakings. Activities included:
 - o Producing preliminary and final RIAs for the HM-219A–Miscellaneous Petitions Rulemaking related to incorporation of a dozen disparate rulemaking changes into the Hazardous Materials Regulations (HMR) (June 2015–June 2016).
 - o Conducting a final RIA for the HM-233D–Requirements for the Safe Transportation of Bulk Explosives on folding nine special permits regarding the transportation of bulk explosives into the HMR (May 2015–September 2015).
 - o Undertaking analysis in support of the HM-215N RIA, which involved maintaining alignment with international regulations and standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. (February 2016–March 2016)
 - o Quantifying costs and benefits from increased worker training and reduced worker packaging hours, in support of Petition P-1671 concerning repackaging requirements for damaged packages (February 2016–April 2016).
 - o Evaluating the economic merit of Petition P-1641, which would incorporate additional standards for compressed gas cylinder valves into the HMR. This included estimating the benefits from lower production and fewer transportation worker injuries and fatalities and the costs of increased worker training (February 2015–March 2015).
 - o Undertaking detailed economic analysis for Petition P-1637, which involves deleting air special provisions A3 and A6 from the HMR. The analysis of costs included potential increases in transportation worker injuries and fatalities. Benefits included reduced packaging and freight shipment costs (November 2014–June 2015).

- o Assessing Petition P-1627–Incorporating Automated External Defibrillators with a Spare Battery into the HMR and Petition P-1626–Incorporating Revised Methods for Pressure Testing Compressed Gas Cylinders into the HMR (May 2014).
- Assisting on task orders for the Transportation Security Administration (TSA), including:
 - o Task Lead on updating a database in Microsoft Access of TSA and U.S. Department of Homeland Security regulations and mapping the regulatory costs by U.S. region. Main updates include breaking down regulatory costs by specific CFR section, and assigning these costs to specific NAICS industries. Regulatory costs are matched to U.S. region using establishment, annual payroll, and revenue data by NAICS from regional census datasets (February 2017–present).
 - o Task Lead on researching the prevailing wages for foreign airport and security workers. This involves researching and tabulating the wages of airline, airport, and security workers for dozens of countries and creating a mapping tool that allows comparison of wages by country (October 2015–present).
 - o Task Lead on a quick turnaround report that examined the economic impacts of establishing an airline flight route between New York, NY, and Nairobi, Kenya (July 2018–August 2018).
 - o Task Lead on estimating owner/operator, flight, passenger throughput, and aircraft counts in general aviation. This involves combining, comparing, and processing data from a variety of aviation datasets (November 2015–March 2016).
- Creator and implementer of a model to estimate the economic impact of port delays for the U.S. Coast Guard. This work includes the following tasks:
 - o Building two interactive port delay models in Excel using VBA for deep-water ports and inland waterways. The models incorporated the following user-provided information: length of delay, freight volume delayed, rerouting options, expected or unexpected delay, and coast impacted (May 2014–September 2014).
 - o Updating the deep-water port model to query a detailed relational database containing cargo volume and values; value-per-ton estimates; cost-of-delay rates; and inland mode characteristics. The inland waterway model will be updated to incorporate data and findings from lock closure research. (March 2015–November 2015).
- Quantitative Lead for the U.S. Department of Justice in estimating the cost and benefits of grants provided to five law enforcement agencies to enforce underage drinking laws. Tasks included:
 - o Analyzing detailed datasets to determine underage drinking enforcement effort (October 2014–November 2014).
 - o Linking increased grant-funded enforcement efforts to a reduction in underage drinks consumed and quantifying the resulting benefits from reduced youth violence, traffic crashes, and injury (November 2014–December 2014).

- Project Manager in determining fair and reasonable U.S. flag ocean freight rates for the Maritime Administration. (October 2015–November 2016). Responsibilities included:
 - Estimating actual costs incurred by the bidding U.S. flag vessel operators, taking into account capital, operating, fuel, port, and toll costs. These costs depended on trip duration, vessel size, vessel age, and cargo size and utilized best estimates of inflation factors, loan interest rates, loan periods, and Treasury rates.
 - Compiling and enhancing client-provided bid data and building a user interface to enable bid comparisons to be made by analysts through the input of specified values for vessel type, commodity type, distance, and vessel size.
- Providing data analysis support for the evaluation of the Centers for Medicare & Medicaid Services (CMS) Partnership for Patients (PfP) 2.0 program (January 2017–October 2017).
- Conducting data analysis related to the Bundled Payments for Care Improvement Model 1 initiative for CMS. This work involved providing statistical and programming support using SAS, Stata, R, and VBA (August 2014–September 2015).
- Providing advice and matching participants and nonparticipants for the CMS Community-based Care Transitions Program (February 2015–September 2015).
- Generating economic analyses to estimate the impact of funding provided to the Housing Authority of the City of High Point, NC, and the Houston, TX, Housing Authority on local economies (January 2015–May 2015).
- Evaluating aviation project prioritization scores for the North Carolina Department of Transportation (November 2014).
- Drafting hospital engagement network performance stories for CMS (August 2014–September 2014).

The Centre for Spatial Economics, 2008 to 2010; 2013 to 2014

As an Economist, Mr. Davis conducted economic analyses and forecasts in support of consulting projects. Clients included Canadian Federal and Provincial governments, crown corporations, nonprofit organizations, and private corporations. In his second stint at this company, he played a key role in business development and marketing, proposal writing, and contract procurement. Projects included:

- Conducting economic forecasts and modeling for 19 regions in British Columbia and creating dynamics between the regions for impact analyses using a gravity model (2014).
- Constructing labor market data for landscape architecture and related sectors and estimating their economic impact on the Ontario economy (2013–2014).
- Estimating the economic impact of grants by a major nonprofit organization in Ontario through input–output analysis (2013–2014).
- Creating demand and supply forecasts for 520 occupations in Alberta. The model incorporated 12 age/sex cohorts, 5 levels of schooling, and 47 fields of study (2008, 2009, 2013).
- Examining the economic impact of changes in banking regulations on the Canadian economy, running dozens of scenarios to capture the full spectrum of regulations (2010).

- Determining the short- and long-term economic impacts on Ontario from creating an integrated early learning system that includes full-day kindergarten (2009–2010).
- Examining the economic importance of international trade flows through the Continental Gateway (Ontario and Quebec) corridor for all provinces in Canada (2009–2010).
- Calculating childcare multipliers and cost–benefit ratios and estimating childcare worker shortages to determine economic impacts of workforce shortages in the sector (2008–2009).
- Tabulating current sources of childcare-sector labor market information, providing recommendations for improvement and establishing future research priorities (2008–2009).
- Developing a model and forecast for machinery and equipment demand and production for Canada and the provinces (2008).

FAA, 2010 to 2013

Mr. Davis served as an Economist in the forecasting branch of the Office of Aviation Policy and Plans. His main duties concerned forecasting passenger and flight movements in U.S. airspace to 2040. He identified the location and scope of future bottlenecks in the aviation system by airport and airspace. Specific tasks included:

- Conducting and combining detailed annual passenger enplanement, aircraft operations, load factor, and seats-per-flight forecasts for the following large hub airports: Boston Logan International Airport, Baltimore-Washington International Airport, Dallas/Fort Worth International Airport, Fort Lauderdale-Hollywood International Airport, and Miami International Airport (2010, 2011, 2012).
- Developing a tool that uses @RISK and VBA to automate the calculation of confidence intervals around the annual forecasts for all 500 U.S. towered airports (2011, 2012, 2013).
- Functioning as the forecasting group’s resident aviation data specialist, utilizing rapidly acquired in-depth knowledge of aviation datasets to conduct higher quality and more customized data pulls than previously conducted, for use by senior aviation analysts across the FAA (2012–2013).
- Providing increasingly accurate passenger enplanement and aircraft operations forecasts for medium hub airports by evaluating the effectiveness of dummy variables (2011, 2012).
- Forecasting short-term load factors for large hub airports by mainline, regional, and international carrier segment; creating methodologies to ensure that the load factors, which had been rising fast over the historical range, stay comfortably under 100 percent in the forecast period (2011, 2012).
- Conducting quality control on new forecasts, including using VBA ActiveX Data Objects to pull data from dozens of tabs in dozens of unopened sheets for comparison purposes (2011, 2012).
- Providing increasingly sophisticated short-term annual general aviation forecasts for all 500 U.S. towered airports, calculated by averaging 4 different forecasts found to be predictive of the future, through evaluation of their predictive capabilities on previous years’ data (2010, 2011).

Education and Certifications

- Certified Project Management Professional (PMP), 2017.
- M.Sc., Economics, Distinction, University College London, UK, 2007.
 - Master's Thesis, Distinction: *Regulating the London Airport System Monopoly*. Created the first oligopoly model in the airport's literature that included differentiation in price and quality. This model was based on and adapted from a model analyzing the hospital industry and incorporated topics such as collusion in price/quality, regulatory capture, asymmetric information, and yardstick competition. Proved which regulatory scenario should be adopted under varying assumptions and boundary conditions.
- B.A., Economics, Distinction, Queen's University, Kingston, Canada, 2006.
 - Fourth-Year Thesis, Distinction: *Puzzles in the American Baseball Card Market*. Investigated the conundrum of rising bankruptcies among baseball card producers, despite rising prices, in the unique market of collectibles. Incorporated collusion into analysis through a grim-trigger mechanism.

Publications

- Davis, J., & Fairholm, R. (2012). Canadian ECEC labour shortages: Big, costly and solvable. In E. Lloyd & H. Penn (Eds.), *Childcare markets: Can they deliver an equitable service?* Bristol, United Kingdom: The Policy Press.

Technical Skills

- Programming (Loops, Arrays, Sorting, Recursion): SQL, VBA, Visual Basic, JavaScript.
- Statistical Packages: Python, R, SAS, Stata, @RISK.

Languages

- English and Danish (Bilingual).
- German (Working Knowledge).

LAUREL LEITNER
Analyst

CAPABILITIES SUMMARY

Ms. Leitner has 10 years of experience in economic analysis, regulatory development, policy formation, and survey design for the Federal Motor Carrier Safety Administration (FMCSA), Pipeline and Hazardous Materials Safety Administration, Export-Import Bank of the United States (EXIM), U.S. Department of Homeland Security, U.S. Securities and Exchange Commission (SEC), and various other U.S. House and Senate offices.

Ms. Leitner has expertise in cost–benefit analyses and small business impact analyses in accordance with Executive Order 12866, Executive Order 13563, U.S. Office of Management and Budget Circular A-4, and the Regulatory Flexibility Act. She has conducted extensive quantitative and qualitative evaluations of proposed regulations and draft legislation to determine the costs and benefits to stakeholders, including institutional investors, Government agencies, and private businesses. Her regulatory analysis conducted on behalf of Government agencies and constituent groups has shaped Federal laws, including the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Federal rulemakings.

Trained in survey design and data analysis, Ms. Leitner has managed studies involving extensive data collection and analysis on subjects relating to safety practices in the transportation industry, institutional investments, corporate expenditures, compensation practices, customer satisfaction, and cassava farming practices in rural Colombia. She is a skilled survey manager with expertise in mixed-mode questionnaire design; sampling techniques, weighting, and nonresponse adjustments; administration; data collection, cleanup and analysis; report drafting; and stakeholder communications.

RELEVANT EXPERIENCE***Econometrica, Inc., 2016 to present***

Ms. Leitner assists Econometrica with projects involving regulatory economics research, cost–benefit analysis, and survey development and management. She serves as a Financial Analyst for the FMCSA Office of Analysis, Research, and Technology.

- Ms. Leitner calculates annual burden-hours and cost estimates, and prepares supporting documentation for agency Information Collection Requests in compliance with the Paperwork Reduction Act.
- Ms. Leitner assists with the public comment process related to Information Collection Requests. In developing the FMCSA’s Commercial Driver’s License Skills Testing Delays study, Ms. Leitner reviewed, categorized, and summarized public comments, and provided support in evaluating economic analyses received. She drafted responses and revised burden and costs estimates as a result.
- She provided regulatory evaluation and development support to FMCSA by preparing cost–benefit evaluations, small business impact analyses, and other evaluations of proposed regulations as required by relevant statutes and Executive orders. She conducted regulatory impact analyses, Regulatory Flexibility Act analyses, and Paperwork Reduction

Act analyses. She routinely interacted directly with FMCSA and U.S. Department of Transportation official staff members and senior leaders to obtain Federal data; prepared reports for publication in the Federal Register; and responded to inquiries on agency rulemakings and analysis supporting FMCSA's positions in court litigation. Ms. Leitner also conducted quality control on the cost-benefit analyses of rulemakings, including for the Unified Registration System II.

- Ms. Leitner provided extensive regulatory support for FMCSA's Interim Final Rule on Parts and Accessories Necessary for Safe Operation; Inspection, Repair, and Maintenance; and Windshield Technologies. She compiled data on previously granted temporary exemptions for various safety technologies and devices; consolidated, analyzed, and reconciled technical provisions of the exemptions; reviewed, categorized, and summarized public comments; identified weaknesses in the proposed regulatory text; and drafted the Interim Final Rule Federal Register notice.

For the Pipeline and Hazardous Materials Safety Administration, Ms. Leitner prepared policy and regulatory economic analyses to ensure safe, reliable, and environmentally sound operation of U.S. infrastructure. While conducting an Initial Regulatory Flexibility Analysis for the International Civil Aviation Organization Lithium Batteries Addendum Interim Final Rule, Ms. Leitner analyzed public comments including economic analyses; refined the Regulatory Flexibility Analysis methodology and design; collected Federal data; conducted economic analyses; and prepared a technical report describing findings, conclusions, costs, benefits, and limitations.

On behalf of EXIM, Ms. Leitner conducted two surveys of EXIM brokers and customers to evaluate the effectiveness of the Bank's efforts to incentivize and support broker participation and identify gaps that might preclude brokers' advocacy for EXIM in the marketplace. She programmed and tested survey instruments; administered surveys; conducted data cleanup and analysis, including nonresponse adjustments; and drafted technical reports summarizing results related to ease of business with the Bank, broker satisfaction with online product resources, relationships with underwriters, and the quality of EXIM products and services.

In addition, Ms. Leitner is part of the Econometrica Team that manages and develops a database of all existing U.S. Department of Homeland Security regulations and economic inputs using Microsoft Access and Excel.

American Trucking Associations (ATA), 2014 to 2016

As an Economics Research Assistant, Ms. Leitner conducted quantitative research on trucking industry issues where limited Government data or academic/industry research existed. Ms. Leitner managed all aspects of ATA's first in-house study on truck driver compensation practices. In addition to conducting a literature review, leading a focus group discussion, and designing the survey methodology and the survey instrument, she oversaw data collection and participant recruitment efforts. After conducting data cleanup and analysis incorporating weighting schemes and nonresponse adjustments, Ms. Leitner authored a comprehensive report providing detailed pay and benefits benchmarks by carrier type, trailer type, and region. The survey reflected data on base pay, bonuses, and benefits from 130 fleets representing more than 130,000 employee drivers and independent contractors. Publication sales surpassed ATA revenue records within 6 months of release.

In addition, Ms. Leitner developed survey methodology, drafted materials for and led focus group discussions, designed survey tools, and conducted cognitive interviews in preparation for future in-house studies on topics including safety technology adoption, safety-related expenditures, and salaried employee compensation practices.

To bolster industry executives' knowledge of evolving regulatory issues, Ms. Leitner presented various original research and moderated discussion panels at national conferences and webinars.

Council of Institutional Investors (CII), 2007 to 2012

Quickly promoted from Analyst to Senior Analyst, Ms. Leitner provided analysis of pending securities regulations and legislation, developed policy recommendations, and advocated CII policies before regulators and Members of Congress. Responsibilities included:

- Conducting longitudinal asset allocation study of more than 55 pension fund portfolios representing \$1.7 trillion in assets to provide insight into investment decisions. Revised and updated survey to evolve with legislative and regulatory developments and to support advocacy efforts.
- Authoring more than 30 comment letters to Congress, SEC, U.S. Commodity Futures Trading Commission, and other key organizations on proposals affecting credit rating agency regulation, risk retention, board structure, and executive compensation, among other issues.
- Proposing and drafting new CII policy positions, including a position on timely disclosure of shareholder voting results that subsequently influenced SEC's adoption of a rule requiring more rapid disclosure of public company annual meeting results.
- Drafting testimony, oral statements, briefs, and talking points for members appearing before Congress and regulators.
- Spearheading engagement with large U.S. public companies demonstrating low performance and high executive compensation; communicating CII positions on pay; and advocating for specific improvements to practices and disclosures.
- Building firm working relationships with Capitol Hill staff.
- Routinely provided critical objective analysis of policy issues under discussion, solidifying CII's reputation as a respected resource for objective research.
- Driving agenda setting, handling all communications, executing programs, leading meetings, and maintaining the web page for CII's 100-plus-member Activism Committee.

Education

- Graduate Certificate, Survey Design and Data Analysis, The George Washington University, 2017.
- B.A., International Affairs (focus on Russian Studies and Economics), James Madison University, 2006.

Certificates

- Certificate, Project Management, Georgetown University, 2013.

Affiliations

- American Association for Public Opinion Research, 2015 to present.
- National Association of Business Economists, 2014 to present.

Additional Skills

- Proficient in SPSS, R, HTML, Microsoft Office, Qualtrics survey suite.
- Languages: Spanish (intermediate), Russian (elementary).

Publications

- Leitner, L., & Costello, B. (2014). *Driver compensation study: 2014*. Arlington, VA: American Trucking Associations. Available at: <http://www.atabusinesssolutions.com/ATAStore/ProductDetails.aspx?productId=2626285>.
- Leitner, L. (2011). *Asset allocation survey: 2011*. Washington, DC: CII. Web (on file with CII).
 - Leitner, L. (2009). *Asset allocation survey: 2009*. Washington, DC: CII. Web (on file with CII).
 - Leitner, L. (2008). *Asset allocation survey: 2008*. Washington, DC: CII. Print.

Selected Presentations

- Leitner, L. (2016, January). *Economics of the trucking industry*. Presentation at American Trucking Associations annual event for Transportation Industry Study Program. Arlington, VA: Dwight D. Eisenhower School for National Security & Resource Strategy.
- Costello, B., & Leitner, L. (2014, December). *Key insights: ATA's 2014 Driver Compensation Study* [Webinar]. Arlington, VA: American Trucking Associations.
- Leitner, L. (2014, October). *(Un)common compensation*. Presentation at 2014 ATA Management Conference & Exhibition, San Diego, CA.

Honors

- Omicron Delta Epsilon National Economic Honor Society.
- Dean's List of Scholars.

JONATHAN A. FUSFIELD, M.B.A.
Editor

CAPABILITIES SUMMARY

Mr. Fusfield is a technical writer and editor with more than 13 years of editing experience. He delivers high-quality products under tight deadlines and often completes multiple assignments simultaneously. He excels at editing multiple styles of writing, developing process efficiencies, and working both independently and as part of a team. Mr. Fusfield has edited materials for Federal, State, and local government agencies, as well as private-sector audiences. He currently manages a team of editors and oversees the quality assurance process of deliverables and proposals. Previously, Mr. Fusfield managed a team using web-scraping technology to harvest content for a national wire service, and he edited that content and contributed to the development of a classification system to categorize that content. He also has experience meeting with subject matter experts and providing customer service to vendors.

RELEVANT EXPERIENCE

Econometrica, Inc., 2015 to present

Managing Editor, 2018 to present

Mr. Fusfield oversees the quality assurance process for all deliverables produced under contracts supporting public- and private-sector clients. As the main point of contact between the editorial staff and Econometrica technical staff, he assists in setting priorities for requested editorial support in the preparation of contract deliverables and technical proposals. In addition to editing documents for clarity, correctness, and compliance, Mr. Fusfield collaborates with subject matter experts to finalize products, reviews formatting for consistency and aesthetics, ensures that deliverables adhere to Section 508 compliance requirements, and performs final quality reviews. He also has been responsible for the testing and implementation of a new ticketing system for editing and graphic design requests from Econometrica's project teams.

Technical Editor/Writer, 2015 to 2018

Mr. Fusfield worked as a Technical Editor/Writer, editing and formatting proposals, meeting summaries, narrative reports, and other contract deliverables according to defined style guidelines. He provided technical editorial assistance on a variety of projects related to health, transportation, homeland security, and housing, among others. Mr. Fusfield edited documents for consistency, grammar, accuracy, and clarity, while maintaining compliance with bid specifications, corporate standards, and Section 508 guidelines. He met with subject matter experts to finalize the content of documents and contributed to the production of proposals and contract deliverables. Mr. Fusfield has provided onsite editorial support for projects at the Transportation Security Administration and the U.S. Census Bureau. In addition, Mr. Fusfield created spreadsheets allowing the editorial staff to better track proposal development and submission. He also helped to manage the workflow of the editorial staff, as needed.

Tribune Content Agency (TCA), 2014 to 2015

TCA is daily news service that delivers thousands of stories a day and syndicates premium content to newspapers and vendors worldwide. Mr. Fusfield served as a Taxonomy Editor for Tribune SmartContent, TCA's custom news product aimed to provide customers with the exact subject matter content they want. In this capacity, Mr. Fusfield edited full-text news articles from more than 500 sources for redistribution to newspapers and vendors. In order for the service to harness its content, he managed a team of five to develop and maintain web-scraping bots, which harvested staff-written content from the websites of the wire's contributors. As bot team manager, he assigned bot development or repair projects and oversaw daily maintenance of existing bots. He also managed long-term bot projects. Mr. Fusfield contributed to the development of an ontology-based classification system that categorized content into topics pertinent to each customer. In addition, he provided customer service with vendors and contributors, helping to solve delivery and content issues. He was responsible for setting up contributor accounts so that they received content from the wire, ensuring that any restrictions on the content were in place and up-to-date.

McClatchy-Tribune Information Services (MCT), 2005 to 2014

MCT was a daily news service that delivered thousands of stories a day to newspapers and vendors worldwide. Mr. Fusfield served as Senior Editor for MCT Regional News, a wire aimed at providing content that was more regionally focused to newspapers and vendors. He edited staff-written content from more than 500 contributors; developed and maintained bots to harvest content from contributors' websites; and developed an ontology-based classification system. As his duties expanded, he also provided customer service to vendors and contributors, ensuring that restrictions between contributors or vendors were up to date, and added or removed contributors to the system as contracts began or ended. In 2014, MCT Regional News transitioned to TCA SmartContent after McClatchy Co. ended its partnership with Tribune Co.

Education

- M.B.A., The George Washington University, 2012.
- B.A., Journalism, University of Maryland, 2005.
- B.A., History, University of Maryland, 2005.

Technical Skills

- Salesforce.com.
- QuarkXPress.
- Microsoft SQL Server.
- Kapow Katalyst.
- Microsoft Office Suite (Word, Excel, PowerPoint, Outlook) and Visio.
- Adobe Acrobat.

Security Clearance

- Secret

Appendix B: Forms

- Expression of Interest Bid Form
- Designated Contact and Certification
- Purchasing Affidavit



Purchasing Division
 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: ECONOMIC IMPACT STUDY OF WV 24 NPIAS AIRPORTS

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2019-02-27	2019-03-27 13:30:00	CEOI 0807 SAC1900000001	1

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:

Econometrica, Inc.
 7475 Wisconsin Avenue, Suite 1000
 Bethesda, MD 20814

 Phone: 301-657-9883

FOR INFORMATION CONTACT THE BUYER

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

Signature X

FEIN # 52-2108043

DATE March 20, 2019

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

ADDITIONAL INFORMATION:

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		

Comm Code	Manufacturer	Specification	Model #
81000000			

Extended Description :

Professional Engineering Services for Economic Impact Study

SAC1900000001	Document Phase Final	Document Description ECONOMIC IMPACT STUDY OF WV 24 NPIAS AIRPORTS	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Name, Title)
Dennis Stout, Director of Housing and Community Development

(Printed Name and Title)
7475 Wisconsin Avenue, Suite 1000, Bethesda, MD 20814

(Address)
301-657-9883 / 301-657-3140

(Phone Number) / (Fax Number)
dstout@econometricainc.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Econometrica, Inc.

(Company)

President and CEO

(Authorized Signature) / (Representative Name, Title)

Cyrus Baghelai, President and CEO

(Printed Name and Title of Authorized Representative)

March 20, 2019

(Date)

301-657-8311 / 301-657-3140

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Econometrica, Inc.

Authorized Signature: _____

Date: March 22, 2019

State of Maryland

County of Montgomery, to-wit:

Taken, subscribed, and sworn to before me this 22 day of MARCH, 2019

My Commission expires _____, 20____.

MARYAM M DADGAR
AFFIX SEAL HERE State of Maryland
Montgomery County
My Commission Expires Apr 3, 2022

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 01/19/2018)