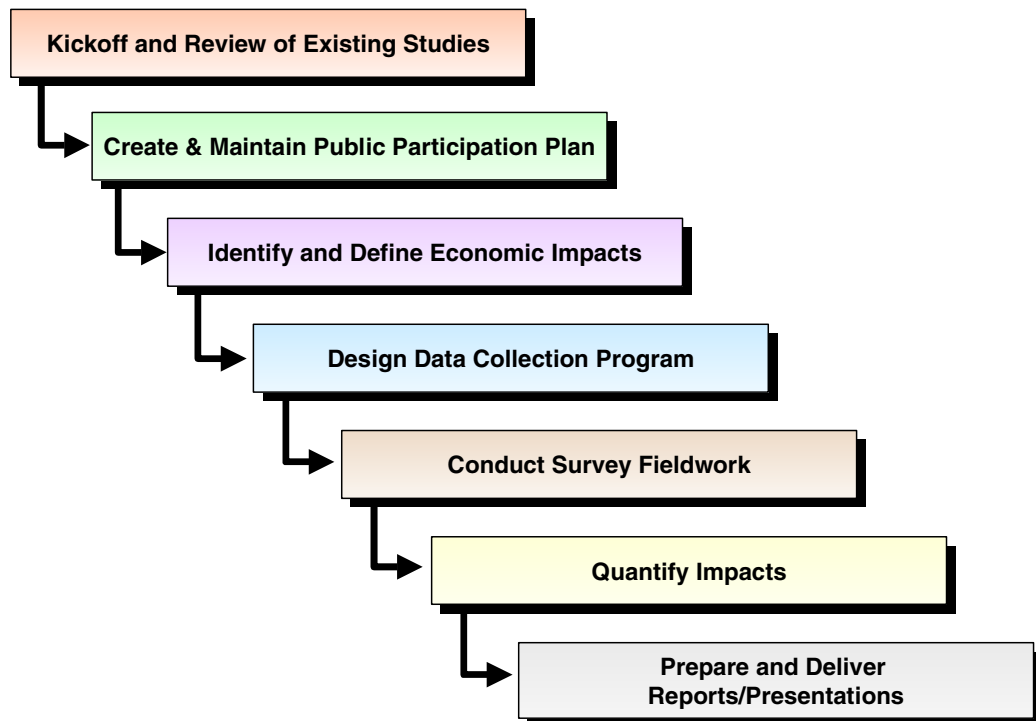


2. THE PROCESS

The *Economic Impact of Vermont's Public-Use Airports Technical Report* was conducted within a progressive framework presented graphically in Exhibit 2. The specific tasks undertaken to complete the Study are described in detail throughout the body of the report.

Exhibit 2
The Study Process



The study process began with VTrans programming funds from the Federal Highway Administration State Planning and Research program.

The Study Team

SH&E, a Boston-based aviation consulting firm, was selected through an open and competitive process. Joined on the SH&E Team are the Economic Development Research Group (EDRG) of Boston; Dufresne Henry, Inc. of Springfield, Vermont; and Yellow Wood Associates of St. Albans.

The TAC

With close consultation from VTrans, a Technical Advisory Committee (TAC) was assembled to assist the consultant team with detailed and technical issues and reviews. During the periodic meetings throughout the course of the Study, the TAC served as a sounding board for the consultant team.

The TAC was assembled from different communities of interest within and contiguous to the aviation sector. The members of the Technical Advisory Committee were as follows:

- **George Coy** – Airport manager (Franklin County) and fixed based operator
- **Dave Pelletier** – Senior transportation planner, Lamoille County Planning Commission, representing the Vermont Association of Planning and Development Agencies
- **Greg Maguire** – Transportation Marketing Specialist, Vermont Department of Tourism and Marketing
- **George Robson** – Vermont Department of Economic Development
- **Robert North** – Private airport owner and operator (Mt. Snow) and local businessman
- **Richard Angney** – Central Vermont Economic Development Corporation

Draft products were submitted to the TAC for review prior to other distributions or presentations.

The SAC

The State Aviation Council (SAC) is a body created to assist VTrans in developing policies, programs and initiatives. The SAC also serves as a forum for interaction with the aviation community. It meets every other month and was apprised of the Study's progress at these meetings. The SAC served in an advisory capacity for this Study as well.

After presentation to the TAC, draft products were submitted to the SAC for review prior to other public distributions or presentations.

Study Products

This document details the course, conduct, and results of the Study process, but is just one of the final products of the Study delivered to VTrans. In addition, VTrans commissioned an Executive Summary document, attached as Appendix IV. The Executive Summary is a small, attractively designed tri-fold pamphlet that contains the major findings of the Study, including a table listing economic impact figures for individual Vermont public-use airports. This Executive Summary is inexpensive to reproduce. Thousands have already been printed and distributed across the State, and VTrans may print more as the need arises. Anyone wishing for a supply of Executive Summaries to distribute should contact VTrans.

The Study team delivered a Microsoft PowerPoint™ presentation to Vermonters during the final round of public meetings, as well as to the State Aviation Council. These 40 slides contain information about the Study's conduct and findings in a form more condensed than this report, yet with greater detail than the Executive Summary. The PowerPoint™ file is available from VTrans in electronic form and can be sent to anyone with an email address.

Finally, a video was produced. This ten-minute presentation highlights the Study's findings and discusses the importance of aviation and public-use airports to the State economy. This video is useful for communicating the results of the Study to large groups. Anyone wishing to borrow a copy of the video should contact VTrans.

Public Outreach

A public involvement strategy was in place from the beginning of the Study. VTrans sought to inform stakeholders and interested parties of the Study and its results, while providing a forum to gather information and aid in identifying data sources.

Public outreach meetings occurred in two rounds. In the first round, the Vermont public was informed about the study, and their cooperation was solicited. In particular, they were advised to expect surveys in the mail or a phone call from the study staff, and that their assistance was crucial to

ensuring that the study would be successful. The second round was intended to inform Vermonters about the results that the study had uncovered.

The first round of meetings was planned for late March over two days at three locations around the state: Burlington International Airport, Lyndonville Town Hall, and Rutland State Airport. Due to a snowstorm, the meeting in Lyndonville was cancelled, and the Burlington meeting very sparsely attended. However, those meetings were rescheduled to occur as a single meeting in May at E. F. Knapp airport in Berlin.

The second round of meetings took place in November. In this round, VTrans used the State's interactive television network to broadcast a single meeting to sites throughout the State. In addition, the Study team conducted four other meetings in-person at William H. Morse Airport in Bennington, Rutland State Airport, Burlington International Airport, and Caledonia County Airport in Lyndon.

There was a particular focus on attracting journalists to the meetings in an effort to gain local press coverage, to help ensure that the widest possible audience was reached.

Surveys

Much of the data required for this study was collected through the surveying of the Vermont aviation community and public. The following set of surveys (included in Appendix 1) was developed to collect the necessary information:

- *Airport Manager Survey* – The Study team administered these surveys in-person to all Vermont public-use airport managers.
- *Airport Tenant Survey* – These surveys of businesses located on airport property were administered in-person where possible, and otherwise by mail.
- *Aircraft Owner Survey* – A survey was mailed to all aircraft owners identified by airport managers as based at their facility, as well as to all aircraft owners listed in the Federal Aviation Administration (FAA) Civil Aircraft Registry a Vermont mailing address.
- *Airport-Dependent Business Survey* – In total, over 2000 surveys were mailed to off-airport Vermont businesses. These included

establishments identified by airport managers as being reliant on their facility. In addition, Dun & Bradstreet was consulted to aid in targeting hundreds of other Vermont businesses due to their size and/or the traditional aviation-dependence of their industry; each of these businesses also received a survey.

- *Airport Visitor Spending Survey* – This survey was administered in-person to commercial and general-aviation passengers met at Vermont airports by members of the Study team. Only those passengers identifying themselves as being a visitor to the airport (trip origin not in the local area) were surveyed. Additional surveys were left with the airport managers and FBO's to be distributed to later general aviation visitors. The survey was used to determine an average profile for visitors the State, especially their expenditures.

This survey program was designed to collect information about the impact of aviation activity as thoroughly as possible. However, it was also specifically drafted with the intent to avoid double counting of impact-related numbers. For example, the aircraft owner survey was primarily targeted at businesses that owned aircraft, or owners using their aircraft for business purposes. The aircraft owner survey did not ask recreational pilots, for instance, for the amount spent annually on aviation fuel, as that amount was captured by surveying airport tenants who sell fuel. Other pilot expenditures such as maintenance parts were captured by surveying airport tenants providing maintenance services, while surveying area or airport restaurants captured money spent on food.

More discussion of the survey design and administration process can be found in Chapter 4 (Methodology – Survey and Fieldwork).

As a result of this survey process, comprehensive information was obtained from all airport managers of Vermont public-use airports (with the exception of Robin's Nest, currently closed). Completed surveys were also obtained from a high percentage of on-airport tenant businesses (see Chapter 4 for discussion of response rates). In cases where tenants did not respond, several rounds of follow-up phone calls were made. If there was still no response, Dun & Bradstreet was consulted for the tenants' most-recently available operating data.

Survey staff spent time at all Vermont airports to conduct intercept surveys of visitors getting on and off of both commercial and general aviation aircraft. The purpose of the visitor surveys was to identify average visitor spending through the survey process. Surveys were not used to estimate visitor traffic. Visitor traffic was quantified based on operations data provided by airport managers. As was mentioned above, blank surveys were left behind with airport managers and FBO's to be completed by later general aviation visitors.

Computer Modeling The survey data described above represents direct spending, or the *primary impacts* of aviation on the economy. However, the economic activity catalyzed by aviation does not end with the primary impact. Money spent in this first round is partially re-spent in subsequent rounds, so that a single additional dollar added to the economy has an ultimate impact that is much larger than a dollar. This additional impact resulting from the respending of new dollars is termed a *spin-off* (or *multiplier*) *impact*.

The size of the spin-off economic impact is described with a multiplier, the amount by which the impact of single new dollar is magnified by respending of that dollar. For example, a multiplier of 2.4 means that each additional dollar brought to Vermont from outside will ultimately boost the state economy by \$2.40. In this case, the *primary impact* is \$1.00, and \$1.40 represents the *spin-off impact*, for a total impact of \$2.40.

Using the correct multiplier or set of multipliers is crucial. The credibility of many other economic analyses has been thrown into question because arbitrary or overly-optimistic multipliers are used. Determining an appropriate multiplier, however, is a complex process that depends on a range of variables specific to the industry, the state, and even the county in question.

To deal with this complexity and achieve the greatest possible credibility for the Study's findings, two well-respected computer modeling programs were used to calculate spin-off impacts: IMPLAN to model the static impact of individual airports on their local economies, and REMI for modeling dynamic situations such as the Study's special scenarios (see Chapter 1: Objectives). IMPLAN and REMI represent the cutting edge of applied and theoretical

economics and the gold standard of impact modeling. A listing of the computer-determined multipliers used in the Study is available in Appendix III.

During the course of this Study, five lines of research into the economic impact of transport infrastructure were consulted. The Study's methodology and application of modeling were formulated to be consistent with the findings of this research. All of this work is current, dating no later than the past three years:

- Transportation Research Circular #477 –“Guide for Assessing the Economic Impacts of Transportation” published by the National Research Council / Transportation Research Board
- The National Synthesis of Practice on methods used for assessing impacts of airports and other transportation facilities in all 50 states
- Updates to FAA's guide for estimating the economic significance of airports, discussed in a TRB annual conference panel discussion on improving airport impact measurement
- The NCHRP guide on methods for measuring social and economic impacts of transportation investments, as well as the new FHWA guide on measuring economic impacts
- The statewide Airport Benefit/Cost measurement tool developed with FAA funding through the Wisconsin DOT, and a related Community Benefit Assessment funded by the Michigan DOT

This research represents the most advanced inquiry into the beneficial relationship between transport infrastructure and economic growth. The entire conduct of this Study was in keeping with the theoretical framework and the findings of this research.

The products of all of these efforts were authored, co-authored or co-directed by Glen Weisbrod of the Economic Development Research Group (EDRG) – a member of the Study team. Also worthy of note is that the EDRG is the only firm in the nation recognized as a consulting expert for both the IMPLAN and REMI economic impact modeling tools.

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