

VERMONT AIRPORT ECONOMIC IMPACT ASSESSMENT

AUGUST 2021



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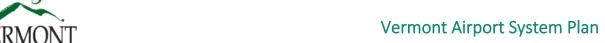


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Economic Impact Assessmemt	McFarland Johnson	



1. Executive Summary

1.1. INTRODUCTION

The purpose of this study is to evaluate the economic impact and contribution of airports in Vermont to the State's economy. End products of this analysis are described in terms of jobs, income, taxes generated, and total economic output in dollars. In addition, the report gives qualitative descriptions of Vermont airports' economic contributions. This analysis provides stakeholders with evidence that their expenditures on local airports are having an impact in creating and sustaining jobs, as well as generating additional tax revenue to federal, State, and local governments.

Prior to presenting results of the analysis, it is helpful to define the technical terms that are used in this report:

- Direct Spending: Includes on-airport spending on employment, operations, and capital projects. It also includes off-airport spending by air travelers for rental cars, hotels, restaurants, etc. Thus, direct spending is associated with both the providers and the users of airport services.
- Induced Benefits: Impacts above the original direct spending created by the successive rounds of spending in the local economy until the original direct impact has been incrementally exported from the local area.
- Jobs and Income: Jobs and income generated by activity at airports in Vermont.
- Total Output in Dollars: The combined impacts of direct and induced spending.
- Taxes: Tax revenue contribution generated by Vermont airports to local and State units of government in Vermont.

1.2. AIRPORTS STUDIED

Currently, there are 16 public-use airport facilities, identified as part of the Vermont State Aviation System. Of these, 12 Vermont Airports are included in the National Plan of Integrated Airport Systems (NPIAS). Many of the airports included in this study were visited, and all airports were surveyed as a part of the inventory effort. These on-site visits and surveys were made to determine employment levels and business activity. The 16 public-use airport facilities include the following:

NPIAS Airports

- Burlington International
- Caledonia County State
- Edward F. Knapp State
- Franklin County State
- Hartness State
- Middlebury State
- Morrisville- Stowe State
- Northeast Kingdom International
- Post Mills





- Rutland Southern Vermont Regional
- Warren-Sugarbush
- William H. Morse State

Non-NPIAS Public-Use Airports

- Basin Harbor
- Deerfield Valley Regional
- John H Boylan State
- Shelburne

1.3. INPUT FOR ECONOMIC IMPACT MODEL

Input was gathered for the economic impact model using surveys, on-site visits to airports, and published data. Three primary input factors from airports were needed, including: the number of jobs on the airport, the average annual capital spending, and the annual visitor spending. From this research the following summary information was developed:

- Jobs: The statewide estimate of direct airport business and employer employment totaled 3,457 full-time equivalent jobs at Vermont airports.
- Average Annual Capital Expenditures: On an annual statewide basis, approximately \$18.5 million in capital development is spent at all Vermont airports.
- Annual Visitor Spending: Annual visitor spending for Vermont airports totaled almost \$127.2 million.
- Total Taxes Paid: Economic activity associated with Vermont airports generated \$36.7 million in State and local taxes.

Other interesting data was gathered from surveys of registered aircraft owners. In this regard, respondents spent an average of \$4,419 annually per aircraft for fuel, \$4,133 for maintenance, \$303 for taxes, \$2,151 for storage and \$5,251 for other. Average annual aircraft spending (fuel, maintenance, storage, and other) for both business and personal aircraft equaled \$16,303.

1.4. ECONOMIC IMPACT METHODOLOGY

Seventy-Eight respondents, accounting for 108 based aircraft spent an average of \$4,419 annually per aircraft for fuel, \$4,133 for maintenance, \$303 for taxes, \$2,151 for storage and \$5,251 for other. Average annual aircraft spending (fuel, maintenance, storage, taxes, and other) per aircraft (108) equaled \$16,303. Total spending for the 78 based aircraft respondents to this question equaled \$1,760,760.

The method used to estimate the total economic impacts for airports in Vermont involved inputting the direct impacts (spending for operations, capital expenditures, and visitor expenditures) into the IMPLAN economic modeling system to calculate the induced effects of direct spending.

By definition, induced economic impacts are the multiplied effects of the direct impacts. Induced impacts are created by the successive rounds of spending in the local economy until the original





direct impact has been incrementally exported from the local area. Thus, the economic impacts of aviation can be felt in parts of Vermont's economy that are far removed from aviation. Regions that are more economically self-sufficient have higher respending "multipliers" than do regions that are more dependent on regional imports since less of the money is siphoned out of the community for goods and services.

1.5. ECONOMIC IMPACT RESULTS

Findings of the 2018 economic impact assessment are presented in **Table 1-1** and **Table 1-2**. As shown, the statewide impacts of airports are anticipated to sustain 5,322 jobs, \$186.1 million in income, and \$525.5 million in annual output. In addition, these airports contribute roughly \$36.7 million in state and local taxes each year.

Table 1-1: Summary of Economic Impacts

ruble 1 1. Summary of Leonorme impacts							
Airport	Direct Employment	Direct Impacts	Direct Income	Induced Employment	Induced Impacts		
Basin Harbor	2 Jobs	\$95,200	\$36,000	0 Jobs	\$65,900		
Burlington International	3457 Jobs	\$289,513,700	\$106,404,500	1478 Jobs	\$191,951,200		
Caledonia County State	3 Jobs	\$277,500	\$100,100	2 Jobs	\$217,600		
Deerfield Valley Regional	1 Jobs	\$118,900	\$42,200	1 Jobs	\$90,200		
Edward F. Knapp State	14 Jobs	\$1,483,500	\$511,500	9 Jobs	\$1,176,400		
Franklin County State	19 Jobs	\$1,611,500	\$631,900	11 Jobs	\$1,336,300		
Hartness State	8 Jobs	\$885,800	\$325,000	6 Jobs	\$706,500		
John H Boylan State	0 Jobs	\$36,300	\$12,500	0 Jobs	\$28,500		
Middlebury State	18 Jobs	\$2,253,000	\$796,400	14 Jobs	\$1,818,600		
Morrisville- Stowe State	36 Jobs	\$3,499,900	\$1,269,500	21 Jobs	\$2,702,000		
Northeast Kingdom International	11 Jobs	\$1,345,400	\$497,100	8 Jobs	\$1,064,900		
Post Mills	2 Jobs	\$285,400	\$93,200	2 Jobs	\$239,200		
Rutland - Southern Vermont Regional	84 Jobs	\$8,330,100	\$2,961,700	45 Jobs	\$5,890,700		
Shelburne	1 Jobs	\$122,100	\$40,200	1 Jobs	\$101,500		
Warren-Sugarbush	6 Jobs	\$839,600	\$277,100	6 Jobs	\$695,800		
William H. Morse State	31 Jobs	\$3,724,000	\$1,536,700	23 Jobs	\$3,007,700		
Grand Totals	3,693 Jobs	\$314,421,900	\$115,535,600	1,627 Jobs	\$211,093,000		



Table 1-2: Summary of Economic Impacts (cont.)

	State & Grand Total Grand Tota						
Airport	State & Local Taxes	Employment	Grand Total Income	Grand Total Impacts			
Basin Harbor	\$14,700	2 Jobs	\$57,000	\$161,100			
Burlington International	\$34,527,500	4935 Jobs	\$170,427,100	\$481,464,900			
Caledonia County State	\$24,000	4 Jobs	\$175,100	\$495,100			
Deerfield Valley Regional	\$13,500	2 Jobs	\$73,000	\$209,200			
Edward F. Knapp State	\$135,100	24 Jobs	\$925,100	\$2,659,900			
Franklin County State	\$112,400	30 Jobs	\$1,100,500	\$2,947,800			
Hartness State	\$71,600	14 Jobs	\$570,200	\$1,592,300			
John H Boylan State	\$3,500	1 Jobs	\$22,500	\$64,900			
Middlebury State	\$161,700	32 Jobs	\$1,435,400	\$4,071,600			
Morrisville- Stowe State	\$334,700	57 Jobs	\$2,193,500	\$6,201,900			
Northeast Kingdom International	\$98,400	20 Jobs	\$862,900	\$2,410,300			
Post Mills	\$18,600	4 Jobs	\$180,400	\$524,600			
Rutland - Southern Vermont Regional	\$900,800	129 Jobs	\$4,904,800	\$14,220,800			
Shelburne	\$8,500	2 Jobs	\$77,000	\$223,600			
Warren-Sugarbush	\$59,600	12 Jobs	\$529,000	\$1,535,300			
William H. Morse State	\$253,600	54 Jobs	\$2,569,000	\$6,731,700			
Grand Totals	\$36,738,200	5,322 Jobs	\$186,102,500	\$525,515,000			



2. Inventory and Data Collection

2.1. INTRODUCTION

The purpose of this study is to update the economic impact and contribution of airports in Vermont to the State's economy. This should provide a better understanding of airport economic benefits by their communities, elected officials, and government representatives. In addition to this understanding, the study intent is also to provide input for guiding enhancement of local and State economies through aviation and airport activities and development.

Once airport economic impacts or benefits have been assessed, they can be weighed against those resources, costs, or concerns necessary to operate, or further develop the airports. Documentation of the value of Vermont's airports will also provide information to justify the investment of federal, State, and local funds necessary to continue the economic output, as well as continuing social and the transportation benefits these airports provide.

In many communities, there is a misperception of the value of the local airport to businesses and to the overall economy. This misperception plays out in the setting of funding priorities, where airports compete with other State and municipal projects for local share funding. With the recent passage of the FAA Reauthorization Act of 2018, eligible airports are in a great position to fund needed infrastructure improvements or capital maintenance. This five-year bill authorizes the predictable funding of critical priorities.

In some instances, airports lose local share funding battles, resulting in lost opportunities for the community. In fact, it can be stated that lost opportunities represent an invisible handicap to a community. It is invisible because the lack of growth in the job market makes the economy seem sluggish. In reality, lost opportunities may have made a positive difference had they been implemented - but it is a difference that the community may not recognize. Everyone notices the loss of existing jobs, but few would notice the lack of new jobs. It is this invisible segment - new jobs - in addition to the existing jobs supported by aviation, that a study such as this can quantify.

Competition for land, especially in the vicinity of growing communities, threatens to absorb many private airports and jeopardizes the viability of others as land is converted to non-compatible uses. Local zoning authorities often do not have enough information concerning the true economic impact of the airports or their need to apply zoning protection for the airport and its surrounding land uses. Hence, the major overall need is the provision of project appraisal that can account for the direct and induced benefits associated with airports in Vermont.

2.1.1 What Is Economic Impact Analysis?

Economic impact analysis is the process of quantifying the economic contributions of any specific activity under study. End products of these analyses are described in terms of jobs, income, and total economic output in dollars. The economic impact analysis of Vermont airports will help quantify the significance of these facilities within the State. It will also provide stakeholders with





evidence that their expenditures on local airports are having an impact in creating and sustaining jobs.

An example, used by economist, Dr. Geoff Hewings – a member of the consulting team, considered a new firm that came into an area and employed 50 people and also purchased some local goods and services. Economic studies have shown that the impacts in the area can be attributable to the company's direct outlays plus the respending of these outlays by firms supplying inputs to the new firm. There are two types of ripple effects: (1) those associated with firm-to-firm transactions and (2) those derived from the wages and salaries allocated to employees in these firms. The wages and salaries paid to the 50 new employees are spent and respent several times within the community. Retail establishments that have nothing to do with the nature of the new firm's business are affected by its presence as the new employees spend their income on clothes, automobiles, restaurant meals and so forth. Thus, for every dollar of new wages and salaries, an additional twenty-five to seventy-five cents of income might be generated elsewhere in the area. As supplier firms providing inputs to the new firm expand their production and thus allocate more resources to wages and salaries, a further consumption-generated ripple effect can be observed.

When all the effects are summed up, a new job can often generate the equivalent of another job (summed up over many partial jobs in different parts of the area's economy) if the community is large and has a sophisticated consumer retail base. In smaller communities, the effect of a new job might be to generate between one third and two-thirds additional jobs. Ripple or multiplier effects work in both a positive (when a new airport enters, or an existing airport expands) and in a negative manner (when an enterprise goes out of business or an airport closes).

2.1.2 What Are the Results Of An Economic Impact Analysis?

This study demonstrates the economic impacts of airport use within the State of Vermont. It traces the movement of expenditures through the various economic sectors until the money is exported incrementally from the State through purchases of outside goods and services. In addition, the study documents the number of jobs created and sustained by each public-use airport in Vermont. Economic impact studies of aviation can be used to support the following:

- Estimating economic outputs at airports from a given set of inputs
- Quantifying the induced monetary value associated with airport activity
- Providing information for public education about the economic value of aviation
- Providing information in support of decision making and funding allocations
- Comparison of economic impacts between airports and other enterprises

2.1.3 Chapter Organization

In order to adequately address these issues, this chapter is organized to include the following topics:

- Review of Previous Studies
- Definition of Economic Impacts
 - Direct Economic Impacts
 - Induced Economic Impacts
- Airport Data Profile





- Economic Activity Around Vermont Airports
- Survey of Airports and Registered Aircraft Owners

The most significant, work-intensive portion of the economic impact analysis is the data collection effort. Results of the inventory and data collection form the basis for inputs to the economic impact model. If these data are flawed or incorrect, the model will multiply that error. Therefore, the greatest care was given to the collection process and the thoroughness in which the data was examined.

2.2. REVIEW OF PREVIOUS STUDIES

At the outset of this analysis, a review of previous economic impact studies relating to Vermont airports or aviation was made. Several other sources were examined including the Transportation Research Board Airport Cooperative Research Program (ACRP) and the US Department of Transportation, Federal Aviation Administration (FAA). From this research, a number of previous studies were identified:

National Level

- The Economic Impact of Civil Aviation on the U.S. Economy September 2017, Federal Aviation Administration
 - This study estimated VT economic impact of aviation to be \$1.173 billion, sustaining 9,505 jobs.
- Economic Impact of General Aviation Airports Aircraft Owners & Pilots Association Website: www.aopa.org
- ACRP Synthesis 7- Airport Economic Impact Methods and Models 2008 Airport Cooperative Research Program, Transportation Research Board

Vermont Studies

- The Economic Impact of Vermont's Public-Use Airports 2003 for Vermont Agency of Transportation
 - This study estimated VT economic impact of public-use airports to be \$276.3 million, with an additional \$335.4 million in aviation-dependent businesses, for a total of \$611.7 million.
- Economic Impact Assessment of Vermont Airports 2011 for Vermont Agency of Transportation
 - This study estimated VT economic impact of publicly owned general aviation airports (did not include Burlington International) of \$30.3 million, supporting 296 jobs.

The review of these reports considered their results, but more importantly, the components that each report examined and the methodology used. It was assumed that many of the previous reports had older data that was not completely relevant to the current economic picture. However, the methodology used for these analyses and the specific types of input were important to this effort to ensure that all relevant factors be considered. Factors common to most of these economic impact studies included the following:



- Outputs of the studies:
 - Direct Spending: On-airport spending for employment, operations, and capital expenditures. This included direct off-airport spending by air travelers for rental cars, hotels, restaurants, etc.
 - Induced Benefits: This spending included the multiplied effects of the circulation of money through re-spending cycles.
 - Jobs and Income: These metrics demonstrate the levels of employment and earnings generated by airports in the State.
 - Total Output in Dollars: The combined impacts of direct/indirect and induced spending make up the total economic output of an airport.
- Descriptions and quantification of the importance of aviation to the economy.

To provide a background context, some of the studies considered the local demographic trends and quantified the aviation activity that occurred at each airport.

With regard to methodology, all of the studies utilized some version of a regional input-output modeling system. All the various economic impact models available (including the IMPLAN, REMI, and RIMS II)¹ take their base data from the national input-output tables developed by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). Each of these models share a similar structure, but there are slight distinctions between each model. For example, all the methods are based on input-output or social accounting principles but differ in the manner in which the data inserted into the model were assembled and manipulated. The models are county-based and thus can be suitable for both small and large-scale geographies. All methodologies use non-survey input-output tables. However, the IMPLAN model has additional detail concerning income-consumption linkages and tax impacts. These factors are important since they convey the information most relevant to tax-paying constituents.

2.2.1 Previous Results for Vermont Airports

The most recent previous economic studies that involved Vermont airports were examined and information regarding the results of that analysis was extracted to show the history and document any growth that may have occurred since then. The 2011 study used the IMPLAN economic modeling system and is directly comparable to the results of this updated study. **Table 2-1** presents a summary of the economic impact of each Vermont Airport as presented in previous studies.

Table 2-1: Previous Economic Impact Values, by Airport

Airport	Total Employment (Direct and Induced)	Total Impact (Direct and Induced)
Burlington International (BTV)	7,811	\$506,699,864
Caledonia County (CDA)	3	\$201,800
Edward F. Knapp (MPV)	25	\$2,427,000

¹IMPLAN = IMpact analysis for PLANning, REMI = Regional Economic Models Inc., RIMS II = Regional Input-Output Modeling System II.





Franklin County (FSO)	42	\$4,249,700
Hartness (VSF)	22	\$1,825,600
John H. Boylan (5B1)	0	N/A
Middlebury (6B0)	28	\$2,783,700
Morrisville-Stowe (MVL)	25	\$2,307,700
Northeast Kingdom International (EFK)	23	\$1,792,600
Rutland (RUT)	105	\$12,090,200
William H. Morse (DDH)	23	\$2,589,800
STATE TOTAL	8,107	\$536,967,964

Source: Economic Impact Assessment of Vermont Airports - 2011 for Vermont Department of Transportation, except for BTV, which was taken from the 2003 study - The Economic Impact of Vermont's Public-Use Airports.

To get a picture of the dominance of the Burlington International impact on the overall totals, **Figure 2-1** shows the relative proportion of impact. As shown, Burlington International accounted for 94 percent of airport economic impact in Vermont.

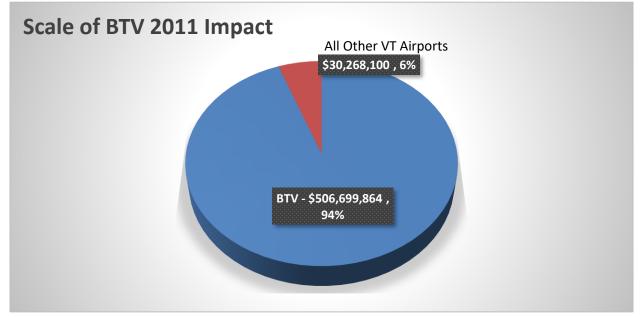


Figure 2-1: Chart Showing Relative Job Creation Numbers and Percentages

Source: Economic Impact Assessment of Vermont Airports - 2011 for Vermont Department of Transportation, except for BTV, which was taken from the 2003 study - The Economic Impact of Vermont's Public-Use Airports.

2.3. DEFINITION OF ECONOMIC IMPACTS

For this study, economic impacts were defined to include direct, induced, and total output. Some economists divide the induced impacts category into "indirect" and "induced" subcategories. The indirect impacts are associated with the first round of respending, while the induced impacts





include all other combined rounds of respending until the direct amount is exported from the region of study. This report simplifies the definition by including the first and all subsequent rounds of spending into the induced category.

2.3.1 Direct Impacts

By definition, direct impacts are associated with *providers* of services at an airport. They are immediate consequences of airport economic activity. The value of direct impacts is the sum of all payroll, capital expenditures, operating and maintenance costs, taxes, and fees incurred by providers of services at an airport. In addition, direct impacts include *users* of airport services that are derived from *off-site* economic activities that are attributable to the airport. The value of these impacts is the sum of the fees and charges paid, time and cost savings, expenses related to food, lodging, ground transportation, and similar outlays.

The collection of data concerning direct impacts is essential for the accurate assessment of overall economic impacts of aviation. That is why time and effort were expended to survey different components of aviation in Vermont: on-airport businesses and employers and registered aircraft owners. In addition, interviews with airport management were held to record their input on activities and trends at their airports. Responses to these surveys varied by airport, but overall, much valuable information was collected. For example, aircraft owners were asked to specify their spending on their aircraft. From this statewide pool of information, averages for single-engine, multi-engine, jet, and helicopters could be compiled.

Direct Impact Components

There were several ways that the direct impacts of aviation in Vermont were estimated. These included surveys, on-site visits, and published data. From the surveys, specific questions were asked concerning on-airport spending and employment. The spending component involved capital improvement expenditures, operational expenditures, and visitor levels. Where operational expenditures were not available, the employment component could be used in conjunction with the IMPLAN model to estimate the spending of various businesses and organizations on an airport. The IMPLAN model estimates employment from expenditure input and expenditures from employment input. Thus, a knowledge of one or the other inputs can result in a completed output from the economic multiplier modeling.

In Vermont, VTrans identified the average annual amount of capital spending for their airports but not necessarily the number of workers associated with each capital improvement project. Thus, the IMPLAN modeling used the direct impact of average annual capital improvement expenditures to derive average annual employment numbers for that work. Similarly, airport visitor spending was estimated in order to develop an associated employment total resulting from these expenditures. In addition to asking questions about the capital spending activity, VTrans collected information on the businesses and employers located at each airport. In this regard, information was gathered concerning the number of full and part time administration/operations employees. This information concerning employment and sponsor expenditures on the airport was considered direct airport-related impact and was not duplicated by other sources.



Airport Economic Data Survey

The Airport Economic Data Survey was administered by VTrans for the purpose of collecting on-airport information about employment, type of businesses located there, capital spending, and aircraft activity. Responses that were applied to the study's catalogue of impacts were limited to those companies or employers that needed the airport in some way in order to operate effectively. Employers like Fixed Base Operators (FBOs), corporate flight departments, the Air National Guard, and so on, were included in the aviation-related impact base. A detailed description of the survey and its results are presented in Appendix 2-A of this Chapter.

Registered Aircraft Owner Survey

Direct economic impacts of registered aircraft owners in Vermont were assessed through a survey questionnaire. In addition to activity levels and business/personal use questions, the survey asked about the level of spending for fuel, maintenance, storage, and "other" expenses. In addition, the aircraft type was recorded so that statewide or airport-level averages could be developed based on the size of the aircraft. With a knowledge of an airport's fleet mix, these averages could then be applied to non-respondents at that airport. This particularly helps in quantifying economic activity at the small, privately owned airports. Section 5 presents a detailed description of the survey of registered aircraft owners and its results.

Airport Visitor Spending

As defined earlier, visitor spending economic impacts are those associated with the use of airports and aviation. They include expenditures by visitors who arrive by air and spend money at local hotels, restaurants, car rental agencies, and other businesses as a result of airport use. As can be imagined, a survey effort needed to track the expenditures of airport visitors in Vermont would require resources much greater than those available for this effort. Therefore, a surrogate measure of indirect impacts was developed that did not require surveys of arriving passengers.

The method for determining visitor spending impacts was based on a stepwise process. This method first estimates the number of visitors to an airport. Then, an estimated expenditure per visitor is applied to the total number of visitors, quantifying the total spending. To estimate the number of general aviation visitors in Vermont, it was assumed that only the transient pilots and passengers would be counted as visitors. To do the math, the average occupancy of itinerant general aviation aircraft must be known or estimated.

For many years, the Aircraft Owners and Pilots Association (AOPA) published the number, 2.5 pilots and passengers, as the average occupancy of itinerant general aviation aircraft. The FAA accepted this number, primarily because there is no definitive survey showing different statistics. Recent checks of both the AOPA and FAA websites have shown these estimates are no longer published. In addition to these sources, the 2003 The Economic Impact of Vermont's Public-Use Airport Study showed an occupancy rate assumption of 1.9 per itinerant aircraft landing. However, this study assumed that 45 percent of all itinerant aircraft landings contained visitors to the area.

For this study it was assumed that a much smaller percentage of itinerant aircraft landings contain actual visitors. For publicly-owned, general aviation airports, 10 percent of itinerant aircraft





operations were considered to be true transients containing visitors. For privately owned, publicuse airports, only 2.5 percent of the itinerant aircraft operations were assumed to have overnight visitors to the area.

For Burlington International and Morrisville-Stowe Airports, higher levels of visitors were assumed. For Burlington International, 45 percent was used as the true transient total, while Morrisville-Stowe used the results of a 2016 study for the number of airport visitors (which included the scheduled charter activity at the airport).

To estimate the individual economic impact of air transportation visitors using Vermont airports, the number of annual visitors was multiplied by the average visitor spending, which was estimated by the Vermont Department of Tourism and Marketing. For this analysis, the most important fact involved their survey finding that the average overnight and second home Vermont visitor spending per trip in 2017 was \$471. This number included 1.8 million overnight visitors who spent \$980 million in Vermont, combined with another 1.8 million visitors using second homes who spent \$715 million.

2.3.2 Induced Economic Impacts

As mentioned, induced economic impacts are the multiplied effects of the direct impacts. Induced impacts are created by the successive rounds of spending in the local economy until the original direct or indirect impact has been incrementally exported from the local area. Thus, the economic impacts of aviation can be felt in parts of Vermont's economy that are far removed from aviation. Regions that are more economically self-sufficient have higher respending "multipliers" than do regions that are more dependent on regional imports since less of the money is siphoned out of the community for goods and services.

The effects of induced economic impacts can be demonstrated through the following example. A new firm opens up in Vermont, generating 200 new jobs, most of them filled by local residents. At the end of the year, the State labor office notes that employment has risen by 350 - yet only 200 new jobs were created. Why did an additional 150 jobs appear in the State? The process by which these jobs were created is known as the multiplier or ripple effect and is a result of several factors: the new firm making purchases of inputs from other firms in the region (thereby generating additional output and potentially employment) as well as the impacts of the expenditures of wages and salaries earned by the 200 new employees. It would be a tedious and difficult process to trace the impacts on a case by case study. Fortunately, IMPLAN contains an accounting system and associated model to make this more feasible.

IMPLAN Model

IMPLAN, developed originally by the U.S. Forest Service, is a comprehensive impact system that is built on the framework of input-output and social accounting methodology. The database is maintained at the county level, affording the analyst an opportunity to create regions for study that are aggregations of counties. The database includes the latest business censuses supplemented by County Business Patterns and other data derived from the Bureau of Economic Analysis.





The input-output and social accounting models are derived from national data with adjustments made to reflect regional specialization, size and industrial composition. The procedures used to accomplish this are well-known and accepted in the literature on nonsurvey techniques. Since IMPLAN provides a comprehensive system (i.e., the complete input-output table or social accounts), it is possible to trace impacts of change in one sector on other sectors in a detailed fashion. The IMPLAN software permits users to:

- Develop a complete set of social account matrices
- Develop user-specified multiplier tables
- Change any component of the system: production functions, trade flows, or database
- Create custom impact analyses by entering final demand changes
- Obtain any report in the system to examine the model's assumptions and calculations

In addition, the IMPLAN databases are composed of the following components:

- Employment;
- Industry Output;
- Value Added
 - Employee Compensation;
 - Proprietary Income;
 - Other Property Type Income;
 - Indirect Business Taxes;
- Institutional Demands
- Personal Consumption Expenditures (PCE) three income levels;
- Federal Government Military and Non-Military Purchases;
- State and Local Government Education and Non-Education Purchases;
- Commodity Credit Corporation;
- Inventory Purchases;
- Capital Formation;
- Foreign Exports;
- Federal, State and Local Government Sales;
- Inventory Sales.
- National Structural Matrices
 - Use
 - Make
 - Inter-Institutional Transfers (SAM)

The ability to edit data makes IMPLAN a dynamic economic modeling tool. Software users can edit all underlying data, from value added, employment, and final demands to production functions, byproducts, and regional purchase coefficients - and many other components.

There are several additional multipliers that can be calculated. For example, when a sector expands production, it will increase payments to labor generating additional wages and salaries that will be spent in the region. Further, other industries whose production must expand to meet these new demands will also spend more on wages and salaries. Thus, an income multiplier may be generated that reveals the relationship between direct income generation and total income (in similar fashion to output). The analysis could also be transformed into employment terms.



Referring to the opening section, it becomes clear why 350 jobs were created in total when only 200 direct jobs were created. The answer is the multiplier process!

Multipliers vary not only across sectors but also across regions. A small regional economy, with a modest representation of industry, may not be able to provide all the necessary inputs required by local industry. Thus, there will be considerable importation of inputs (sometimes referred to as leakages). In general, the larger the value of the imports, the lower the value of the multiplier. The value of multipliers could be expected to decrease as the economic region under consideration gets smaller. Thus, moving from the U.S. as a whole to a census region, an individual state, a metropolitan region, and finally to a county would result in smaller and smaller multiplier values. However, there are a few cases in which this finding is not confirmed - cases in which a region may have a significant representation of a particular sector.

Tax Estimates

IMPLAN includes the estimation of tax impacts associated with expenditures. These important transactions include those between the government and consumers (taxes, transfers such as unemployment compensation, welfare), between firms and government (such as business taxes) and between consumers and firms (dividends from stock ownership). These institutional transactions are captured in a social accounting matrix. With a social accounting system, the multipliers tend to be larger than those derived from the input-output system alone. The primary benefit of using an input-output model that includes a social accounting system is the quantification of taxes collected through the various transactions between sectors. In this regard, State and local taxes were estimated for each Vermont airport studied in this analysis.

2.4. AIRPORT DATA PROFILE

For each Vermont airport, a data profile was developed to assist in the analysis and estimation of its economic impact. The data gathered for each public-use airport comprised the following categories:

- Airport Functions and Use
- Economic Activity Around Vermont Airports
- Survey of Airport Users and Dependent Businesses

Each of these topics are described below.

2.4.1 Airport Functions and Use

Currently, there are 16 public-use system airports located in the State of Vermont. Twelve of these are included in the National Plan of Integrated Airport Systems. Ten of the airports are owned by the State. The NPIAS and/or State-owned airports were surveyed as a part of the inventory effort. Data from the privately owned, non-NPIAS, non-state-owned airports was collected where possible via discussions with airport owners. The NPIAS and/or state-owned airports include the following:





- Burlington International
- Caledonia County
- Edward F. Knapp
- Franklin County
- Hartness
- John H. Boylan*
- Middlebury
- Morrisville-Stowe
- Northeast Kingdom International
- Post Mills**
- Rutland
- Warren-Sugarbush**
- William Morse

*This airport is state-owned, but not included in the NPIAS **These airports are privately owned, but included in the NPIAS

The privately-owned, non-NPIAS and non-state-owned airports that were included in the analysis were:

- Basin Harbor
- Deerfield Valley Regional
- Shelburne

In order to understand the relative size and activity of each public-use airport in Vermont, a description is presented that details the service area, the type of aircraft that uses each facility, and the overall activity, along with a brief description of the airfield and landside areas making up the airport. **Table 2-2** and **Table 2-3** presents a summary of this information. To better understand the table, it is appropriate to define the terms used in the description categories.

Ownership

In Vermont, as in other parts of the nation, general aviation airports are either publicly owned or privately owned. Listed in the table are both publicly and privately owned, public-use airports. The state of Vermont owns 10 of its general aviation airports. Some privately-owned airports in the State are deemed restricted or private-use facilities and as such, are not listed in the table.

Runways

The number, size, and surface type of runways at an airport indicate the type of aircraft serviced at that airport. Airports with multiple runways can operate when wind conditions are not favorable to a single runway. Also, the larger the runways, the larger and faster the aircraft that they can accommodate.

The surface type of runway indicates which airports are seasonal and which facilities can be used during all weather conditions. Turf runways cannot be plowed for snow removal and often tend to get muddy during rainy seasons. Use of these airports is highly dependent upon favorable weather conditions. Because of this, most turf runway airports support more personal flying than



business flying. Asphalt or concrete runways, on the other hand, can be open year-round and can serve business needs during wet and snowy seasons. Airports with these types of runways tend to have a higher level of business activity than turf runway airports.

Based Aircraft and Operations

The number of based aircraft and operations at an airport shows the activity level of the facility. The higher the activity level, the more economic impact the airport is likely to generate. Based aircraft refers to the number of permanently stationed aircraft at an airport. Operations refer to the number of take-offs and landings that occur at an airport. A takeoff and a landing are two operations.

Service Area

The service areas described for each airport were reduced to two general categories: local and regional. The local service area implies a 30-mile driving radius (or 45 minutes driving time) from the airport. This service area is generally limited to those living relatively near the airport and using the airport to base their aircraft. Local service area airports are low activity facilities that primarily accommodate pilot training and personal flying.

For this study, an airport with a regional service area implies a driving radius larger than 30 miles for users and the attraction of corporate general aviation aircraft. Regional service airports are generally higher activity airports with larger runway facilities. They are generally able to accommodate many of the business class aircraft including multi-engine turboprops and business jets and tend to attract business use due to their facilities and ground services.

The designation of the Burlington airport as international indicates it has air service to one or more foreign destinations. In this case, Toronto, Canada is served from Burlington.

Activity Types

Airports accommodate numerous types of aviation activity which support both commerce and personal use. Activity types listed by airport operators included:

- Airline Service: Scheduled airline service is available from two Vermont airports: Burlington International and Rutland. The Rutland service is provided under subsidy, while the Burlington service supports competition from a number of airlines.
- Air Cargo At Burlington International Airport, there are regular flights by air cargo airlines. At the other general aviation airports, air cargo delivery is usually on a special-order basis.
- **Crop Spraying** Application of pesticides and fertilizers are made from specially fitted aircraft. A license to operate in Vermont is required for all aerial application operators.
- Powerline Surveillance Powerlines often traverse land that is not easily accessible from highways. For this reason, aircraft have been used by power companies to survey their lines and detect potential problems with vegetation growth or other facility problems.
- **Pilot Training** Pilot training at Vermont airports is conducted usually through flight schools or private instructors. If a public-use airport doesn't have a flight school, it is still likely that private instruction is provided at the airport.





- Corporate Aviation Most corporate aviation is conducted using turbojet or larger turboprop aircraft. However, many single engine aircraft are also used for business purposes. Typically, corporate aviation implies the use of professional pilots, while business aviation can mean private pilots using their aircraft for business purposes.
- Military Aviation Military aviation activity is the regular or occasional use of an airport by military aircraft. For example, the Air National Guard units located at Burlington International Airport are regular users, while other general aviation airports in the State receive occasional training flights.
- Aeromedical Evacuation (Medevac) Medevac is the life-saving activity of helicopter and
 fixed wing aircraft in transporting sick or injured persons to hospital facilities via air. For
 critical trauma victims, the first hour is called the golden hour because every minute of
 delay decreases the likelihood of complete recovery. A large segment of medevac activity
 involves transfers of patients from one hospital to another more specialized in the field of
 patient needs.
- Tourism/Sightseeing Tourism and sightseeing are important aviation activities since they draw discretionary spending from tourists to a particular area. Coupled with local attractions such as fall foliage and winter ski areas, aviation support activities can provide supplemental economic impact.
- Glider/Balloon Activity Often, these types of aviation activity are associated with festivals
 or specialized airports. While not large economic impact endeavors, many corporations
 sponsor balloons with high visibility company logos printed on the balloon itself. It should
 be noted that Warren-Sugarbush and Post Mills airports have significant seasonal glider
 activity.
- **Banner Towing** Banner towing activities in support of aerial advertising occur in highly populated areas, often during sporting and special events. These operations are localized and seasonal.

Table 2-2: Vermont Public Use Airport Facilities

Airport	Ownership	Primary Runway Dimensions	Runway Surface	Based Aircraft	Annual Operations
Basin Harbor	Private	3,000 x 90	Turf	0	2,182
Burlington International	Public	8,319 x 150	Asphalt	79	70,800
Caledonia County State	Public	3x300 x 60	Asphalt	18	7,380
Deerfield Valley Regional	Private	2,650 x 75	Asphalt	7	3,100
Edward F. Knapp State	Public	5,002 x 100	Asphalt	52	24,125
Franklin County State	Public	3,000 x 60	Asphalt	69	10,095
Hartness State	Public	5,501 x 100	Asphalt	19	6,611
John H Boylan State	Public	2,650 x 120	Turf	3	403
Middlebury State	Public	2,500 x 50	Asphalt	34	10,900
Morrisville- Stowe State	Public	3,700 x 75	Asphalt	19	6,358





Airport	Ownership	Primary Runway Dimensions	Runway Surface	Based Aircraft	Annual Operations
Northeast Kingdom International	Public	5,000 x 100	Asphalt	20	9,452
Post Mills	Private	2,900 x 80	Turf	0	4,330
Rutland - Southern Vermont Regional	Public	5,003 x 100	Asphalt	29	12,382
Shelburne	Private	3,077 x 60	Turf	53	4,236
Warren-Sugarbush	Private	2,575 x 30	Asphalt	0	17,620
William H. Morse State	Public	3,704 x 75	Asphalt	25	14,377

Table 2-3: Vermont Public Use Airport Facilities (cont.)

		Table ose full port radilities (correi)		
Airport	Service Area	Business Aviation Activity		
Basin Harbor	Local	None		
Burlington International	International	Fuel, transient storage, aircraft sales, charter instruction and rental, major airframe and powerplant repairs, avionics sales and service, oxygen, cargo and freight handling		
Caledonia County State	Local	Fuel, transient storage		
Deerfield Valley Regional	Local	Transient aircraft storage		
Edward F. Knapp State	Local	Fuel, transient storage, major powerplant and airframe repairs, aircraft rental and instruction		
Franklin County State	Local	Fuel, aircraft rides, rental and instruction, transient storage, major airframe and powerplant repairs		
Hartness State	Local	Fuel, aircraft rides, rental and instruction, transient storage, charter, banner towing, major airframe and powerplant repairs		
John H Boylan State	Local	Transient storage		
Middlebury State	Local	Fuel, transient tie-downs, parachute jumping, major airframe and powerplant repairs		
Morrisville- Stowe State	Regional	Fuel, transient storage, avionics service and repair, glider towing, banner towing major airframe and powerplant repairs		
Northeast Kingdom International	Local	Fuel, transient storage, avionics service and repair, glider towing, banner towing major airframe and powerplant repairs		
Post Mills	Local	Transient aircraft storage, minor airframe and powerplant repairs, balloon repairs, sales and scenic		



Airport	Service Area	Business Aviation Activity
		flights, aircraft charter, aircraft sales and instruction, glider and banner towing
Rutland - Southern Vermont Regional	Regional	Fuel, transient storage, aircraft sales instruction and rental, major airframe and powerplant repairs
Shelburne	Local	Transient aircraft storage, major airframe and powerplant repairs, aircraft rental and instruction
Warren-Sugarbush	Local	Transient aircraft storage, aircraft rental and instruction, glider and banner towing
William H. Morse State	Local	Fuel, transient storage

Source: Airport Master Record, Airport Surveys, 2017

2.5. ECONOMIC ACTIVITY AROUND VERMONT AIRPORTS

Airports are a part of a region's transportation infrastructure. Like highways and railroads, airports serve to supplement commerce and personal transportation. They feed and enable the economic activity that occurs in their vicinity. For this reason, it is important to examine the economic activity occurring near Vermont airports. Intuitively, as the economic activity increases in an area, so will the need for transportation services and infrastructure in order to serve these new levels.

2.5.1 Socioeconomic Indicators

Socioeconomic statistics are generally used to describe the economic and demographic trends expected to occur in a particular area. They are a key measure of economic health in a region. Socioeconomic factors have been shown in numerous studies sponsored by the FAA to be related to an area's demand for aviation facilities and services. Among the most significant are population, income, and employment. This section identifies each of these factors and presents historical statistics and trends for population between the last census (2010) and the most recent U.S. Census Bureau estimate (2017) for all 14 Vermont counties. In addition, per capita personal income (PCPI) statistics are presented, although from a different source. Employment characteristics are illustrated by showing the top 10 industries per county by job numbers.

Population

Analysis and projection of population are useful for making planning decisions and assessing major economic development proposals, including those at airports. In many instances, the growth or decline of population determines the level of demand for future facilities and serves as an index of most county and urban characteristics. Because all economic impact and development is related to population, it is important to identify Vermont population trends for this study.

Table 2-4 presents the historical population growth for Vermont counties between 2010 and 2017. As shown, Chittenden County, which contains Burlington and its suburbs, has the highest percentage growth over the period (3.72%). Lamoille is a close second with a growth of 3.52%. In



fact, the only population growth in the State has been in the four northwest Vermont counties. The other 10 counties have lost population, according to Census Bureau estimates. Overall, there has been an estimated decline in the State of about 3,500 population in the recent past.

Table 2-4: Population of Vermont Counties

County	2010	2017	% Change
Addison	36,821	36,776	-0.12%
Bennington	37,125	35,594	-4.12%
Caledonia	31,227	30,164	-3.40%
Chittenden	156,545	162,372	3.72%
Essex	6,306	6,230	-1.21%
Franklin	47,746	49,025	2.68%
Grand Isle	6,970	6,998	0.40%
Lamoille	24,475	25,337	3.52%
Orange	28,936	28,974	0.13%
Orleans	27,231	26,841	-1.43%
Rutland	61,642	59,087	-4.14%
Washington	59,534	58,290	-2.09%
Windham	44,513	42,869	-3.69%
Windsor	56,670	55,100	-2.77%
Total	625,741	623,657	-0.33%

Source: U.S. Census Bureau, February 2019. www.census.gov

The retention of population is often related to the availability of jobs and economic activity. While Burlington International Airport is an economic engine itself, most of the other general aviation airports in the State function to supplement ongoing economic activity in their service areas. They can also serve to attract new economic activity by providing access to the National Airspace System (NAS).

Income

Like population, an area's income and economic activity have been shown to be positively related to the demand for aviation services and facilities in many parts of the country. Further, there is an assumed causal relationship between concentrated economic activity and demand for air transportation.

Income statistics commonly include Total Personal Income (TPI) and Per Capita Personal Income (PCPI). For tracking growth trends, PCPI is the preferred statistic since it removes the population growth factor from the income growth factor. Thus, PCPI statistics for Vermont counties were collected for the inventory. **Table 2-5** presents the historical and projected growth in PCPI for the 14 Vermont counties.



Table 2-5: Historical and Forecast Income Growth for Vermont Counties

County	2010	2017	% Change	2037 Forecast	% Change
Addison	\$38,880	\$47,112	21.17%	\$112,490	238.77%
Bennington	39,913	\$50,554	26.66%	\$117,459	232.34%
Caledonia	32,610	\$40,902	25.43%	\$98,152	239.97%
Chittenden	45,758	\$58,271	27.35%	\$137,628	236.19%
Essex	30,779	\$37,307	21.21%	\$89,747	240.56%
Franklin	34,872	\$44,132	26.55%	\$103,700	234.98%
Grand Isle	46,248	\$53,902	16.55%	\$118,517	219.87%
Lamoille	40,448	\$51,051	26.21%	\$121,978	238.93%
Orange	36,731	\$44,777	21.91%	\$102,498	228.91%
Orleans	33,940	\$43,866	29.25%	\$106,254	242.22%
Rutland	40,352	\$50,492	25.13%	\$121,904	241.43%
Washington	43,789	\$55,167	25.98%	\$133,092	241.25%
Windham	39,573	\$49,382	24.79%	\$117,505	237.95%
Windsor	43,978	\$56,222	27.84%	\$134,676	239.54%

Source: Woods & Poole Economics, 2/2019.

In absolute numbers, Essex County has the lowest income levels, while Chittenden (Burlington) has the highest. Between 2010 and 2017, Orleans County had the highest growth, while Grand Isle had the lowest. For the future (2037), growth is estimated to range between 220 percent (Grand Isle) and 242 percent (Orleans). Chittenden County, with a growth of 236 percent, is a solid performer and because of its high population, will continue to be the economic leader of the State.

Employment

Employment statistics are another measure of economic activity and thus are related to the demand for air transportation facilities and services. Growing employment trends point toward greater economic activity. This activity, in turn, leads to more use of aviation and air transportation services. The top 10 employers by industry for Vermont counties are presented in **Table 2-6**. As shown, Lamoille County's top employment sector was associated with hotels and motels, supporting 1,541 jobs. The large hotel and motel sector in Lamoille County highlights the fact that it is a tourist destination and likely to have a higher need for air access. Indeed, the Morrisville-Stowe Airport, located there, caters to summer and winter resort traffic.

Table 2-6: Top Employment Sectors by County

Economic Sectors - Caledonia County	Jobs
Employment and payroll of local govt, education	828
Elementary and secondary schools	593
Hospitals	508

Economic Sector - Washington County	Jobs
Employment and payroll of state govt, non-education	3,923
Employment and payroll of local govt, education	1,724
Insurance carriers	1,622







Real estate	461
Employment and payroll of local govt, non-education	422
Retail - Food and beverage stores	406
* Employment and payroll of state govt, education	405
Outpatient care centers	383
Commercial logging	363
Full-service restaurants	335

Full-service restaurants	1,454
Individual and family services	1,384
Wholesale trade	1,285
Junior colleges, colleges, universities, and professional schools	1,261
Real estate	1,236
Retail - Food and beverage stores	1,117
Outpatient care centers	1,012

Economic Sectors - Franklin County	Jobs
Employment and payroll of local govt, education	2,064
Employment and payroll of federal govt, non-military	1,350
Wholesale trade	688
Employment services	628
Hospitals	618
Outpatient care centers	605
Real estate	578
Warehousing and storage	568
Retail - Food and beverage stores	542
Dairy cattle and milk production	478

Economic Sectors - Windsor County	Jobs
Employment and payroll of local govt, education	1,942
Real estate	1,388
Employment and payroll of federal govt, non- military	1,227
Individual and family services	1,170
Wholesale trade	973
Full-service restaurants	949
Hotels and motels, including casino hotels	885
Hospitals	830
Employment and payroll of local govt, non-education	768
Retail - Food and beverage stores	673

Economic Sector - Essex County	Jobs
Commercial logging	281
* Employment and payroll of local govt, education	139
* Employment and payroll of local govt, non-education	122
Other millwork, including flooring	94
All other crop farming	77
* Employment and payroll of federal govt, non-military	59
Construction of other new residential structures	54
* Employment and payroll of federal govt, military	46
Wholesale trade	45
Truck transportation	35

Economic Sectors - Addison County	Jobs
Junior colleges, colleges, universities, and professional schools	2,395
Employment and payroll of local govt, education	1,358
Individual and family services	729
Real estate	650
Other educational services	599
Scientific research and development services	577
Retail - Food and beverage stores	566
Watch, clock, and other measuring device manufacturing	539
Nursing and community care facilities	534
Full-service restaurants	531

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Economic Sectors - Orleans County	Jobs
Employment and payroll of local govt, education	1,187
Hotels and motels, including casino hotels	614
Hospitals	517
Real estate	474
Individual and family services	404
Nursing and community care facilities	395
Retail - Food and beverage stores	390
All other crop farming	371



Employment and payroll of state govt, education	402
Gambling industries (except casino hotels)	353

Wholesale trade	369
Full-service restaurants	350

Economic Sector - Rutland County	Jobs
Employment and payroll of local govt, education	1,907
Hospitals	1,618
Full-service restaurants	1,149
Aircraft engine and engine parts manufacturing	1,067
Real estate	1,060
Wholesale trade	979
Individual and family services	958
Retail - Food and beverage stores	850
Hotels and motels, including casino hotels	849
Limited-service restaurants	783

Economic Sectors - Bennington County		
Employment and payroll of local govt, education	1,251	
Real estate	997	
Hospitals	772	
Junior colleges, colleges, universities, and professional schools	758	
Full-service restaurants	725	
Other plastics product manufacturing	529	
Limited-service restaurants	504	
Retail - Food and beverage stores		
Nursing and community care facilities	477	
Hotels and motels, including casino hotels	419	

Employment Sectors - Orange County	Jobs
Employment and payroll of local govt, education	913
Individual and family services	785
Employment and payroll of local govt, non-education	439
Hospitals	425
Wholesale trade	420
Employment and payroll of state govt, education	412
All other crop farming	327
Retail - Food and beverage stores	285
Construction of other new residential structures	261
Other personal services	234

Employment Sectors - Windham County	Jobs
Hospitals	1,746
Employment and payroll of local govt, education	1,585
Hotels and motels, including casino hotels	1,247
Wholesale trade	1,182
Real estate	1,105
Full-service restaurants	864
Elementary and secondary schools	833
Employment and payroll of local govt, non-education	794
Retail - Food and beverage stores	759
Individual and family services	758

All employment sector data for Vermont counties were derived from the Bureau of Economic Analysis (BEA), U.S. Bureau of Labor Statistics (BLS), and the U.S. Census Bureau.

2.6. SURVEY OF AIRPORTS AND REGISTERED AIRCRAFT OWNERS

For airport specific studies such as this, surveys are often the only way to access some local data. In this regard, two surveys were developed and mailed to different segments of Vermont's aviation economy:

- Airport User Surveys
- Airport Economic Data Surveys

Each of these surveys and their aggregate results are presented in the following sections.

2.6.1 Airport Users

In Vermont, there were 682 registered aircraft as of 4/18. Rather than attempt to gather lists of aircraft tenants at each individual airport, surveys of registered aircraft owners were developed





which ask respondents to list the home airport for their aircraft. Typically, based aircraft economic impacts come in the form of owner/operator spending and business interaction. In addition to these two areas, information was requested about aircraft activity in order to better understand and interpret the expenditure numbers. A copy of the Registered Aircraft Owners Survey is presented on the following pages and the results are summarized later in this report.

The Airport Users Survey was divided into three major sections, along with name and address information. The three sections included: Aircraft Economic Information, Aircraft Activity Information, and Comments and Opinions.

Aircraft Economic Information

Three questions included in this section involved:

- Aircraft type
- Home Airport for aircraft
- Total annual spending associated with the aircraft

Information gained from answers to these questions was used to quantify overall spending by aircraft owners at each Vermont airport. In addition to statewide averages, sample sizes at most of the airports permitted direct assessment of aircraft user expenditures at specific airports. For those airports with insufficient numbers of responses, average expenditures by aircraft type (single engine, multi-engine, jet, etc.) could be estimated from the statewide averages and applied to fleet mix numbers for the airports in question.

Aircraft Activity Information

Four questions in this section included:

- Estimate the number of take offs or landings per year at the home Airport
- Estimate the annual percentage of training flights
- Estimate the average trip length
- Estimate the percentage business/personal use of your aircraft

By including questions about aircraft activity, expenditures on aircraft could be related to activity levels. In addition, the number of short training flights including touch-and-go operations could be factored into the overall aircraft owner profile. Because many small planes are used on a part-time basis for business purposes, the survey asked respondents to quantify the types of usage.





3-letter FAA ID:

Airport User Survey

Vermont State Airport System Plan

VTRANS, Aviation Program requests your participation in this airport user survey. This information will be used as the basis for assessing economic impacts of airports in the State of Vermont.

Thank you! Your contributions to the Vermont State Airport System and this System Plan are sincerely appreciated!

If you have questions about this survey or the Vermont State Airport System Plan, please contact Seth Wiedemann. (seth@rawiedemann.com; 859-699-0728.)

Airport Name:

SURVEY COMPLETED BY				
Name:		Title/Position:		
Telephone:		Mobile Phone:		
Fax:	Er	Email:		
AIRCRAFT ECONOMIC INFORMATION	N			
Aircraft Type (Please list all aircraft):				
Home Airport for your aircraft:				
	Fuel: \$	Fuel: \$		
	Maintenance: \$			
Please estimate annual spending for your aircraft:	Storage: \$			
	Other (Taxes, etc.): \$			
TOTAL: \$		L: \$		
AIRCRAFT ACTIVITY INFORMATION				
4. Please estimate the number of annual	takeoffs and la	andings at y	our Home Airport:	
5. Of these flights, what percentage wou	ld you estimate	e are trainin	ng flights?	%
6. Of your annual flights, please estimate the percenta			Business:	%
		e usage:	Personal:	%
			Other:	100%
			TOTAL:	100%







Airport User Survey	VERMON
COMMENTS AND OPINIONS	
What new facilities or services would cause you to use the Airport n	nore frequently?:

Thank you for your valuable input!

Page 2



Comments and Opinions

The final question in the survey asked respondents to give comments and opinions. These responses tended to cluster around the following points:

- Positive feedback about their home airport
- Negative feedback about their home airport
- Facility needs
- Cost issues
- Other various comments

The next section describes the Airport Economic Data Surveys.

2.6.2 Airport Economic Data Surveys

A second survey was developed that examined the business sector of airport economic impact. It is recognized that not all employers are businesses, e.g. governmental entities and educational institutions are not businesses. The purpose of the survey was to quantify the number of employees on each airport. In addition, it requested the level of capital spending and an estimate of the true itinerant aircraft operational percentage. A copy of the survey is presented on the following page and the results are summarized later in this report. The Airport Economic Data Survey was divided into two major sections, in addition to the contact information about the respondent. Those sections included Airport Economic Data and Other Airport Data.

Airport Economic Data

Two primary questions were asked in this section:

- Number of Airport Operation and Management Jobs
- Employers, Type of Business, and Number of full and part time employees

Ascertaining the number of on-airport jobs is the heart of measuring the economic value of the airport to the community. There was space for 10 businesses/employers on the survey. However, additional businesses could be listed on the back of the survey itself. Key information included the type of product or service and the employment totals for the business. This information is necessary for programming accurate inputs to the IMPLAN model.

Other Airport Data

There were two questions in this section. The first asked respondents to describe the amount of capital spending (all grants, etc.) over the last five years. This information was used to determine the number of temporary jobs created by construction activities at Vermont airports. The second question asked what percentage of itinerant general aviation aircraft operations were estimated to be true transients (visitors) to the area. The purpose of this question is to prevent overestimation of visitor spending. If most itinerant aircraft flights are made by local residents, they will not be using hotels, rental cars, etc., in support of their visit. Instead, true visitors are the ones who will spend money on these travel amenities. At different airports, it is assumed there are different levels of true visitors. At Burlington International, for example, as much as half of the





3-letter FAA ID:

Airport Economic Data Survey

Vermont State Airport System Plan

VTRANS, Aviation Program requests your participation in this airport economic data survey. This information will be used as the basis for assessing economic impacts of airports in the State of Vermont.

Thank you! Your contributions to the Vermont State Airport System and this System Plan are sincerely appreciated!

If you have questions about this survey or the Vermont State Airport System Plan, please contact Seth Wiedemann. (seth@rawiedemann.com; 859-699-0728.)

Airport Name:

SURVEY COMPLETED BY		
Organization Name:		
Name:	Title/Position:	
Telephone:	Mobile Phone:	
Fax:	Email:	

AIRPORT ECONOMIC DATA		
ON AIRPORT EMPLOYMENT – NUMBER OF JOBS:		
Airport Operation & Management jobs — assume 2 part-time jobs = 1 full-time job (list all that apply):	State, County, City, Other	
	1 Jobs:	_
	Type of Business:	
	2 Jobs:	_
On-Airport Employers (Tenants with Employees): Example: FedEx, FBO, Corporate Aviation, etc.	Type of Business:	
Please list employers, type of business, and their	3 Jobs:	
number of employees. Assume 2 part-time jobs = 1 full time job.	Type of Business:	
	4 Jobs:	_
	Type of Business:	
	5 Jobs:	_
	Type of Business:	

Page 1





Airport Economic Data Survey		VERMONT
	6	Jobs:
	Type of Business:	
	7	Jobs:
	Type of Business:	
	8	Jobs:
	Type of Business:	
	9	Jobs:
	Type of Business:	
	10	Jobs:
	Type of Business:	
OTHER AIRPORT DATA		
AIRPORT CAPITAL SPENDING:		
Total Capital Spending – Last 5 yrs (All Grants, etc.) \$	
AIRCRAFT ACTIVITY:		
What % of Itinerant GA Aircraft Operations Are Estimated to be True Transient (Visitors)?		%

Thank you for your valuable input!

Page 2





itinerant general aviation traffic may be true visitors, while a small airport like Boylan State Airport may have less than 40 visitors per year.

2.6.3 Survey Results

The Airport User Survey was developed and mailed to 350 registered aircraft owners in Vermont in July of 2018. In addition to these direct mailings, a specialized Vermont survey website was developed in combination with www.surveymonkey.com so that respondents could complete them online.

The direct mailings and online surveys asked respondents to return completed surveys by June 8, 2018. During this period, a total of 79 Airport User Surveys were completed via online and mail-in respondents. This represents a response rate of 22.6 percent for the total mailing. This response rate falls in the normal response range of 18 percent to 28 percent. (note: Categories may not add up to total as some aircraft owners owned multiple types of aircraft, so they could not be separated into each category) Detailed results for each survey question are detailed below.

VERMONT PUBLIC USE AIRPORTS

A total of 43 User/Business Surveys were collected from respondents that base their aircraft at one of Vermont's Public Use Airports.

1. Aircraft Type (Please list all aircraft):

A total of 79 Airport users responded to this question. Aircraft types included 94 single-engine aircraft, 2 multi-engine aircraft, 1 turboprop aircraft, 3 jet aircraft, and 8 other aircraft for a total of 108 aircraft (some respondents owned multiple aircraft).

2. Home Airport for your aircraft:

Respondents listed 19 airports with based aircraft registered in Vermont. Of these airports, two were airports located in states that boarder Vermont. Some respondents cited basing aircraft at multiple airports

3. Please estimate annual spending for your aircraft:

Seventy-Eight respondents, accounting for 108 based aircraft spent an average of \$4,419 annually per aircraft for fuel, \$4,133 for maintenance, \$303 for taxes, \$2,151 for storage and \$5,251 for other. Average annual aircraft spending (fuel, maintenance, storage, taxes, and other) per aircraft (108) equaled \$16,303. Total spending for the 78 based aircraft respondents to this question equaled \$1,760,760.

Average spending per aircraft:

• Single Engine (87): \$7,745

• Multi Engine (1): \$7,000

• Turboprop (2): \$17,600

• Jet (3): \$260,200

• Multiple Aircraft (15): \$17,610





The Multiple Aircraft (15) breakdown included 6 Single Engine aircraft, 1 Multi Engine aircraft, and 8 Other aircraft for a total of 15 aircraft.

Average spending per user response:

• Single Engine (70): \$9,626

• Multi Engine (1): \$7,000

• Turboprop (1): \$35,200

• Jet (2): \$390,300

• Multiple Aircraft (4): \$66,038

4. Please estimate the number of annual takeoffs and landings at your Home Airport:

Sixty-Nine users with 96 aircraft (82 single engine aircraft, 2 multi engine aircraft, 2 turboprop aircraft, 3 jet aircraft, and 7 other aircraft) reported an estimated 29,640 annual operations (14,820 takeoffs) for an average of 309 operations per aircraft or 430 operations per user.

Average spending on fuel per takeoff:

- Single Engine (77): Spent an average of \$30.61 in fuel per takeoff (6,355 takeoffs)
- Multi Engine (1): Spent an average of \$25.00 in fuel per takeoff (60 takeoffs)
- Turboprop (2): Spent an average of \$166.67 in fuel per takeoff (60 takeoffs)
- Jet (3): Spent an average of \$3,500.00 in fuel per takeoff (70 takeoffs)
- Multiple Aircraft (13): Spent an average of \$2.54 in fuel per takeoff (8,275 takeoffs)

The Multiple Aircraft (13) breakdown included 5 Single Engine aircraft, 1 Multi Engine aircraft, and 7 Other aircraft for a total of 13 aircraft.

<u>Total average spending per takeoff for the users that answered the question:</u>

- Single Engine (77): Spent an average of \$101.76 per takeoff (6,355 takeoffs)
- Multi Engine (1): Spent an average of \$116.67 per takeoff (60 takeoffs)
- Turboprop (2): Spent an average of \$586.67 per takeoff (60 takeoffs)
- Jet (3): Spent an average of \$11,151.43 per takeoff (70 takeoffs)
- Multiple Aircraft (13): Spent an average of \$31.18 per takeoff (8,275 takeoffs)

The Multiple Aircraft (13) breakdown included 5 Single Engine aircraft, 1 Multi Engine aircraft, and 7 Other aircraft for a total of 13 aircraft

5. Of these flights, what percentage would you estimate are training flights?

Of the 29,640 annual operations reported by respondents, 9,435 (31.8 percent) were training flights.

The following shows the number of training flights by aircraft type:

- Single Engine (56): 1,430 Operations
- Multi Engine (1): 2 Operations
- Jet (3): 3 Operations
- Multiple Aircraft (8): 8,000 Operations

The Multiple Aircraft (8) breakdown included 2 Single Engine aircraft, and 6 Other aircraft for a total of 8 aircraft.





6. Of your annual flights, please estimate the percentage usage:

A total of 74 Airport users responded to this question. They indicated that in terms of the percentage of flights flown, 70.8 percent of flights flown were for business reasons, 28.8 percent of flights flown were for personal reasons, and 0.4 percent of flights flown were for other reasons. In terms of the number of operations flown, respondents indicated that 20,903 operations were for business, 8,508 operations were for personal reasons and 121 operations were for other purposes.

Breakdown by aircraft type:

- Single Engine (77): Business (37.2%) Personal (61.9 %) Other (1.0%) 12,602 total operations
- Multi Engine (1): Business (0.0%) Personal (100.0 %) Other (0.0%) 120 total operations
- Turboprop (2): Business (0.0%) Personal (100.0 %) Other (0.0%) 120 total operations
- Jet (3): Business (65.7%) Personal (34.3 %) Other (0.0%) 140 total operations
- Multiple Aircraft (13): Business (97.4%) Personal (2.6 %) Other (0.0%) 16,550 total operations
- Total (96): Business (70.8%) Personal (28.8 %) Other (0.4%) 29,532 total operations

The Multiple Aircraft category included 5 Single Engine aircraft, 1 Multi Engine aircraft, and 7 Other aircraft for a total of 13 aircraft.

7. What new facilities or services would cause you to use the Airport more frequently?

A total of 49 respondents replied to this question, addressing numerous issues across multiple airports. A summary of the top issues from the comments are as follows (some surveyed addressed multiple issues):

- Warren—Sugarbush Airport: Respondents indicated a need for food service, winter access, and runway enhancement.
- Middlebury State Airport: Respondents indicated a need for public transportation/car rentals, restaurant, runway repair, plane wash, fuel discount, and a grass strip.
- Burlington International: Respondents indicated an additional general aviation FBO/maintenance operation, need for additional/cheaper hangar space, reduced costs, and lower fuel pricing.
- William H. Morse State Airport: Respondents indicated a need for lower fuel prices and general facility maintenance (lights, doors, bathrooms).
- Northeast Kingdom International Airport: Respondents indicated a need for customs services, restaurant, terminal building with TSA, and de-icing services.
- Franklin County State Airport: Respondents indicated a need for a restaurant, runway repair and lengthening, more hangar space, lower fuel prices, ground transportation, and airport-related events including safety training.
- Edward F. Knapp State Airport: Respondents indicated a need for opportunities additional FBO/aircraft maintenance, lower fuel prices, self-serve avgas, restaurant, rental hanger space, more instruction/training opportunities, events at the airport for public, plowing the ramp, and flight training.
- Morrisville-Stowe State Airport: Respondents indicated a need for lower fuel costs and more hangar space.







- Rutland—Southern Vermont Regional Airport: Respondents indicated a need for lower fuel costs and more aviation programs.
- Hartness State Airport: Respondents indicated a need for a restaurant, child's aircraft themed play area, showers, and community events (car shows and fly-in's).
- Shelburne Airport: A respondent indicated the need for LL100 fuel at the airport.





3. Economic Impact Evaluation

To adequately measure economic impacts, an analysis that follows an industry-wide accepted methodology was used in this study. That methodology first identifies the direct spending and employment at airports and includes the direct spending at off-airport sites such as hotels and restaurants. Armed with this information, regional multipliers are applied to the data to determine the multiplied impacts of direct spending. The IMPLAN model was loaded with inputs for each Vermont airport included in the analysis. The results of that process are described in the following sections:

- IMPLAN Results for Vermont airports
- Other Key Outputs
- Economic Impact Summary
- Economic Sustainability Factors
- Appendix 3-A IMPLAN Tables

3.1. IMPLAN RESULTS FOR VERMONT AIRPORTS

The final step in the analytical process of regional economic impact analysis is the estimation of the induced or multiplied effects of Vermont's direct and indirect aviation impacts. Using the IMPLAN software, multiplier tables were generated for all Vermont counties for all the potential impacted industries. Results and data from the estimation of direct and indirect impacts were plugged into the appropriate multiplier process and the results were summed for each airport to obtain output and employment totals supported by aviation. Appendix 3-A presents the tabular results of the IMPLAN process.

This section provides a summary of each airport's direct and induced economic impacts. In addition, there is a discussion of market potential and future economic development at each airport. This documentation is the culmination of work involving the survey data, the secondary source data, and the IMPLAN multipliers in determining the economic impact of Vermont airports.

3.1.1 Basin Harbor Airport

Basin Harbor Airport (B06) is located within the Basin Harbor Club, a golf/resort complex. The Airport is a privately owned, public-use facility. It has one 3,000-foot by 90-foot turf runway. Airport users are asked to bring their own tie-downs, and radio ahead for bellhops to meet them at the field, which is walking distance from the resort lodge. There are no based aircraft on the field and no hangars or fuel sales that occur at the Airport.

Because the airport has no employees, based aircraft, or annual capital expenditures, visitor spending constituted the total economic impact of Basin Harbor Airport. This direct spending is associated with the airport and is spread across accommodation & food services, entertainment & recreation, retail, and transportation industries. Because visitor spending through Basin Harbor and Morrisville-Stowe are associated primarily with resort travelers, the visitor spending per trip



at these airports is estimated higher than that of a typical Vermont airport. In total, the 144 annual itinerant visitors spent an estimated \$661 per visitor for a direct impact of \$95,200.

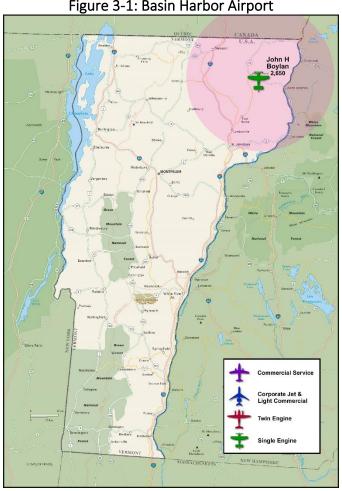


Figure 3-1: Basin Harbor Airport

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-1** presents a summary of each of these components of economic impact for Basin Harbor Airport.

Table 3-1: Basin Harbor Airport Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$36,000
Airport Expenditures	\$95,200
Airport-Related Employment	2 Jobs
Estimated State and Local Taxes	\$14,700



Induced Impacts	
Induced Direct Impacts	\$65,900
Induced Income Impacts	\$21,000
Induced Employment Impacts	0 Jobs
Grand Total Dollar Impacts	\$161,100
Grand Total Income Impacts	\$57,000
Grand Total Employment Impacts	2 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.2 Burlington International Airport

Burlington International Airport (BTV) is located on the eastern shore of Lake Champlain, roughly 40 miles from both north and south bridges or roads around the lake. Burlington is also accessible via Interstate Highway 89 (and 189), U.S. Highways 2 and 7, and State Routes 127 and 116. As the largest city in Vermont, Burlington enjoys daily passenger rail service to Springfield (MA), New York City, and Washington D.C.

As the largest public-use airport in the Vermont aviation system, BTV offers a full complement of infrastructure, facilities, equipment, and services to accommodate scheduled commercial passenger service and the most demanding and sophisticated general aviation aircraft types and operators. Domestic carriers American Airlines, Delta Airlines, JetBlue and United Airlines provide flights to major hubs in Atlanta, New York City, Washington D.C., Chicago, Detroit, Philadelphia, and Charlotte, and Canada-based Porter Airlines, which serves 17 Canadian destinations and eight U.S. destinations via its hub in Toronto. BTV also serves as home to 158th Fighter Wing of the Vermont Air National Guard (ANG) and the Army Aviation Support Facility of the Vermont Army National Guard (ARNG).

There are a total of 784 jobs supported on the airport from Airline and general aviation activity. Top employers for airline activity include Delta, Piedmont, and United, which provide ground handling, as well as passenger services. For terminal concessions and retail, Skinny Pancake and Hudson Group are the top employers at the Airport. On the general aviation side, Heritage Aviation is the top employer, providing FBO services to general aviation users. Pratt & Whitney has a sizeable presence on the field from an aircraft equipment standpoint, as well as several specialized operators such as Beta Tech and Aerodyme.

Airline passengers and itinerant general aviation passengers contributed an off-airport direct impact of over \$122 million in annual visitor spending, which is enough to support 1,940 jobs in State of Vermont. Annual capital spending at Burlington International was estimated at just over \$13 million, which equaled the average Airport Improvement Plan spending per year over the past eight years. In addition to these factors, the Army and Air National Guard both maintain significant operations at the airport, and support 622 full-time equivalent jobs.



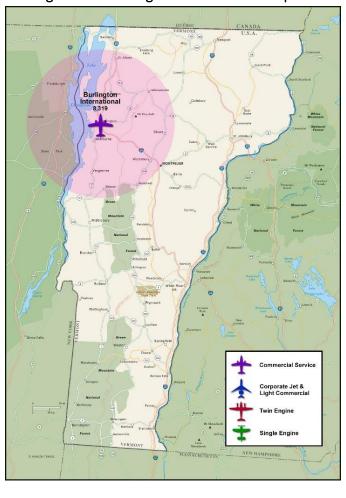


Figure 3-2: Burlington International Airport

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-2** presents a summary of each of these components of economic impact for Burlington International Airport.

Table 3-2: Burlington International Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$106,404,500
Airport Expenditures	\$289,513,700
Airport-Related Employment	3,457 Jobs
Estimated State and Local Taxes	\$34,527,470
Induced Impacts	
Induced Direct Impacts	\$191,951,200
Induced Income Impacts	\$64,022,600



Induced Employment Impacts	1,478 Jobs
Grand Total Dollar Impacts	\$481,464,900
Grand Total Income Impacts	\$170,427,100
Grand Total Employment Impacts	4,935 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.3 Caledonia County State

Caledonia County State Airport (CDA) is located three miles north of Lyndonville, a village in Caledonia County. The airport is a state owned, public-use facility. It has one 3,300-foot by 60-foot asphalt runway. Airport services include 100LL fuel, aircraft charter, hangar rental, and tie downs.

Direct economic impacts from the airport include one job for airport operations and management, airport capital expenditures of \$71,200 per year (8-year average AIP spending), and spending associated with 160 itinerant passengers using the airport to visit the area.

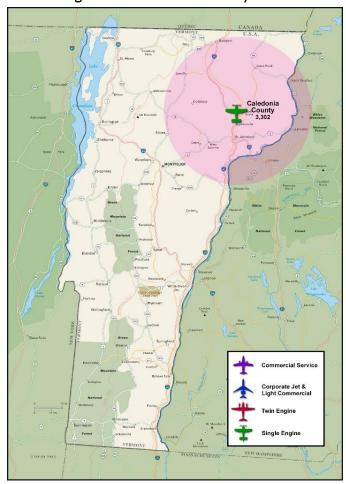


Figure 3-3: Caledonia County State



The economic impact of the airport includes direct, indirect, and induced components of output, employment and income. **Table 3-3** presents a summary of each of these components of economic impact for Caledonia County State Airport.

Table 3-3: Caledonia County State Direct and Induced Economic Impacts

Tuble 3 3. Calcadina County State Direct and in	·
ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$100,100
Airport Expenditures	\$277,500
Airport-Related Employment	2 Jobs
Estimated State and Local Taxes	\$24,000
Induced Impacts	
Induced Direct Impacts	\$217,600
Induced Income Impacts	\$75,000
Induced Employment Impacts	2 Jobs
Grand Total Dollar Impacts	\$495,100
Grand Total Income Impacts	\$175,100
Grand Total Employment Impacts	4 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.4 Deerfield Valley Regional

Deerfield Valley Regional Airport (4V8) is located one mile southwest of the central business district of West Dover, in Windham County. The airport is a privately-owned, public-use airport with a 2,650-foot by 75-foot asphalt runway. The airport is within five miles of the Hermitage Club, a luxury ski community, and Haystack Mountain. Seasonal scheduled service to the airport has been provided in the past by Tradewind Aviation, which operates an 8-seat turbo prop from White Plains, NY.

There were no direct economic impacts recorded for employment or capital spending on the airport, but estimates could be made from based aircraft and operations data. As previously mentioned in the survey results, the average spending from aircraft owners in Vermont for single-engine aircraft equaled \$7,745 per year. Because there are 7 based aircraft listed on the airport master record for Deerfield Valley Regional, the spending associated with maintaining those aircraft was included in estimating the direct economic impacts of the airport. In addition to this, aircraft operations at the airport provided an estimated 163 annual visitors through Deerfield Valley Regional.



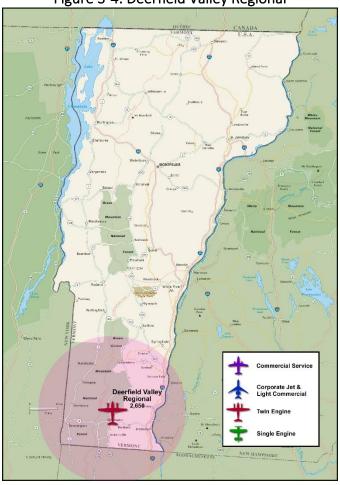


Figure 3-4: Deerfield Valley Regional

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-4** presents a summary of each of these components of economic impact for Deerfield Valley Regional Airport.

Table 3-4: Deerfield Valley Regional Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$42,200
Airport Expenditures	\$118,900
Airport-Related Employment	1 Job
Estimated State and Local Taxes	\$13,500
Induced Impacts	



Induced Direct Impacts	\$90,200
Induced Income Impacts	\$30,900
Induced Employment Impacts	1 Job
Grand Total Dollar Impacts	\$209,200
Grand Total Income Impacts	\$73,000
Grand Total Employment Impacts	2 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.5 Edward F. Knapp State

Edward F. Knapp State Airport (MPV) is located three miles west of the central business district of Barre City and serves Montpelier, the State Capital. The airport has a 5,002-foot by 100-foot asphalt runway and offers fuel sales, aircraft storage, major powerplant and airframe repairs, aircraft rentals, and flight instruction. There is a 4,680-square foot terminal building on the field, and FBO services provided by Vermont Flying Services. The commercial carrier, Wiggins Airways, carries overnight air freight for UPS and operates out of the airport.

There are 7 jobs contributing to the direct employment on the airport, and they consist of airport operations personnel and management, as well as Vermont Flying Services employees. The 8-year average AIP spending at Edward F. Knapp State has been \$56,600 annually, and the direct impacts from visitor spending totaled \$428,100.



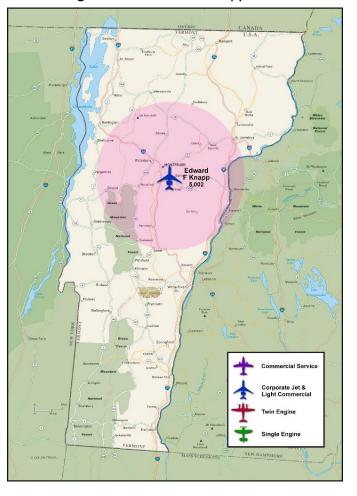


Figure 3-5: Edward F. Knapp State

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-5** presents a summary of each of these components of economic impact for Edward F. Knapp State Airport.

Table 3-5: Edward F. Knapp State Direct and Induced Economic Impacts

rubic 5 5. Edward 1. Knapp state birest and in	Tadood Loomonno mipaoto
ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$511,500
Airport Expenditures	\$1,483,500
Airport-Related Employment	14 Jobs
Estimated State and Local Taxes	\$135,100
Induced Impacts	



Induced Direct Impacts	\$1,176,400
Induced Income Impacts	\$413,600
Induced Employment Impacts	10 Jobs
Grand Total Dollar Impacts	\$2,659,900
Grand Total Income Impacts	\$925,100
Grand Total Employment Impacts	24 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.6 Franklin County State

Franklin County State Airport (FSO) is owned by the State of Vermont and managed and operated by the Operations Division of the Vermont Agency of Transportation. Located in the Champlain Valley of northwest Vermont, the airport is two miles northeast of the town center of Swanton, three miles west of Highgate, and is five miles south of the U.S. border with Canada. There are services including airframe and power plant repairs, and 100LL fuel available. Additional services include avionics, airplane rentals, flight instruction, hangar and tie down space.

There is a direct impact of 18 jobs at the Airport. These jobs are spread across several on-airport businesses, including Border Air (FBO), Prestige Aircraft Service (aircraft painting), Fly Vermont LLC (Flight School), Up North Aviation (panel installation), CAS Limited (aircraft brokerage), and Malone Parachute (skydiving). The Airport also spends an average of \$75,400 per year on capital improvements, and attracts \$31,400 from annual visitor spending.



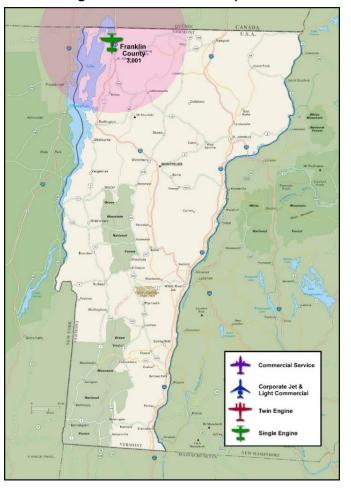


Figure 3-6: Franklin County State

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-6** presents a summary of each of these components of economic impact for Franklin County State Airport.

Table 3-6: Franklin County State Direct and Induced Economic Impacts

Table 5 of Trankin County State Birest and Induced Economic Impacts	
ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$631,900
Airport Expenditures	\$1,611,500
Airport-Related Employment	19 Jobs
Estimated State and Local Taxes	\$112,400
Induced Impacts	
Induced Direct Impacts	\$1,336,300
Induced Income Impacts	\$468,700



Induced Employment Impacts	11 Jobs
Grand Total Dollar Impacts	\$2,947,800
Grand Total Income Impacts	\$1,100,500
Grand Total Employment Impacts	30 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.7 Hartness State

Hartness State Airport (VSF) was the first airport in the state of Vermont. It is owned by the State of Vermont and managed and operated by the Operations Division of the Vermont Agency of Transportation. Located in Windsor County in southeastern Vermont three and a half miles northwest of Springfield, the airport operates within the Vermont airport system as a regional service general aviation airport. The airport has access from Route 106 near its intersection with Route 10 and is approximately five miles east of Interstate 91.

Springfield Aviation is a full service FBO providing hangar rentals, tie downs, full serve Jet A and 100LL, catering, rental cars, flight instruction, rental aircraft, heavy airframe and heavy power plant maintenance. 100LL and Jet-A is available 24/7 at the Airport's self-service fuel farm.

New England Soaring Association (NESA) – based on the airport – provides its members with primary flight instruction. In addition, people with no previous flight experience can learn to fly, and those already holding a different FAA certificate can add a glider rating.

There were a total of 4.5 full time equivalent jobs recorded on the field at VSF. Other economic benefits associated with the Airport include the direct impact of capital improvements, which average \$193,200 per year according to airport improvement plan records. In addition to this, the airport provides a direct impact for the spending associated with 339 annual visitors to the area.



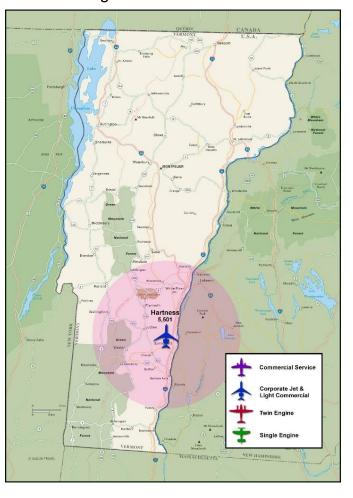


Figure 3-7: Hartness State

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-7** presents a summary of each of these components of economic impact for Hartness State Airport.

Table 3-7: Hartness State Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$325,000
Airport Expenditures	\$885,800
Airport-Related Employment	8 Jobs
Estimated State and Local Taxes	\$71,600
Induced Impacts	
Induced Direct Impacts	\$706,500
Induced Income Impacts	\$245,200



Induced Employment Impacts	6 Jobs
Grand Total Dollar Impacts	\$1,592,300
Grand Total Income Impacts	\$570,200
Grand Total Employment Impacts	14 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.8 John H. Boylan State

John H Boylan State Airport (5B1) is owned by the State of Vermont and managed and operated by the Operations Division of the Vermont Agency of Transportation. The airport is located three miles southeast of the central business district of Island Pond – a census designated place – in the town of Brighton in Essex County.

5B1 covers an area of 188 acres and has one turf runway designated 14/32, with a 2,650-foot by 120-foot runway. Access to the airport is provided by Highway 105 which connects approximately 20 miles to the northwest with Interstate 91. The airport is approximately 10 miles west of the New Hampshire border, and approximately 15 miles south of the U.S. border with Canada.

Direct economic impacts from the Airport include spending associated with the three single engine aircraft that are based on the field, as well as \$13,100 in annual visitor spending from itinerant general aviation operations.



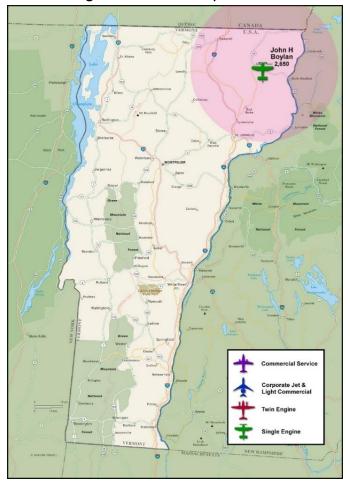


Figure 3-8: John H Boylan State

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-8** presents a summary of each of these components of economic impact for John H. Boylan State Airport.

Table 3-8: John H Boylan State Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$12,500
Airport Expenditures	\$36,300
Airport-Related Employment	1 Jobs
Estimated State and Local Taxes	\$3,500
Induced Impacts	
Induced Direct Impacts	\$28,500
Induced Income Impacts	\$10,000



Induced Employment Impacts	0 Jobs
Grand Total Dollar Impacts	\$64,900
Grand Total Income Impacts	\$22,500
Grand Total Employment Impacts	1 Job

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.9 Middlebury State

Middlebury State Airport (6B0) is owned by the State of Vermont and managed and operated by the Operations Division of the Vermont Agency of Transportation. Located in the Champlain Valley of west central Vermont, with the Green Mountains to the east and New York's Adirondacks to the west, the airport is entirely in the Town of Middlebury.

J&M Aviation is a based tenant providing aircraft maintenance including annuals, minor and major airframe repair, corrosion prevention, general aircraft maintenance, and aircraft painting. Fixed based operation (FBO) services include tie downs, preheating & starting equipment, 100LL and AvGas. Discussions are underway to add Jet-A sometime soon.

Green Mountain Avionics provides high-quality avionics and systems installation, inspection, troubleshooting and repair. The company owns a Cessna 172 equipped with top of the line avionics to allow clients the opportunity to learn the latest systems. The company aircraft is also used to fly to other airports to perform off-site services.

There were a total of 10.5 full time equivalent jobs recorded on the field at Middlebury State Airport. Other economic benefits associated with the Airport include the direct impact of capital improvements, which average \$610,700 per year according to airport improvement plan records. In addition to this, the airport provides a direct impact for the spending associated with 363 annual visitors to the area.



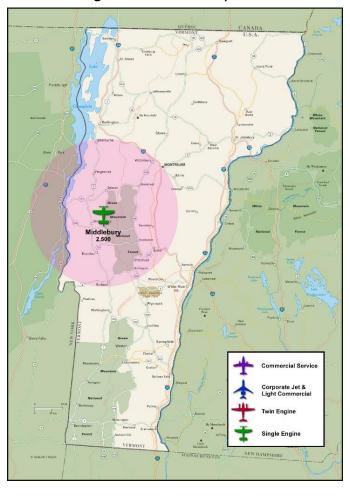


Figure 3-9: Middlebury State

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-9** presents a summary of each of these components of economic impact for Middlebury State Airport.

Table 3-9: Middlebury State Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$796,400
Airport Expenditures	\$2,253,000
Airport-Related Employment	18 Jobs
Estimated State and Local Taxes	\$161,700
Induced Impacts	
Induced Direct Impacts	\$1,818,600
Induced Income Impacts	\$638,900



Induced Employment Impacts	14 Jobs
Grand Total Dollar Impacts	\$4,071,600
Grand Total Income Impacts	\$1,435,400
Grand Total Employment Impacts	32 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.10 Morrisville-Stowe State

Morrisville-Stowe State Airport (MVL) is a northern visitor destination in Vermont. It routinely draws visitors who drive from Boston, New York, and Quebec. Stowe Aviation is the Airport FBO and they also manage the Airport on behalf of the Vermont Department of Transportation. Stowe Aviation provides maintenance, charter and flight training, as well as fuel sales. Scheduled charter service has been provided by Tradewind Aviation to White Plains, NY, on a seasonal basis.

Prior to Stowe Aviation's arrival at the airport in 2014, there were no scheduled commercial flights to Stowe. In late 2015, Tradewind began service to Stowe using 8-seat Pilatus turboprop aircraft. Headquartered in Oxford Connecticut with operational bases at Westchester County Airport in New York and San Juan International Airport in Puerto Rico, Tradewind operates both ondemand private charter and scheduled "Shuttle" service in the U.S. and Caribbean.

Direct economic impacts from the Airport include supporting 11 jobs on the field. Top employers include Stowe Aviation (FBO) and Stowe Soaring (scenic glider rides). Airport capital spending averages \$763,500 per year according to the airport improvement plan records. Visitor spending associated with the airport include the direct impacts of the 1,765 annual visitors that come through Morrisville-Stowe State Airport. Most of these visitors are resort vacationers both in winter and in summer, and have visitor spending estimates similar to Basin Harbor. At \$661 per visitor per trip, annual visitor spending through MVL was almost \$1.2 million.



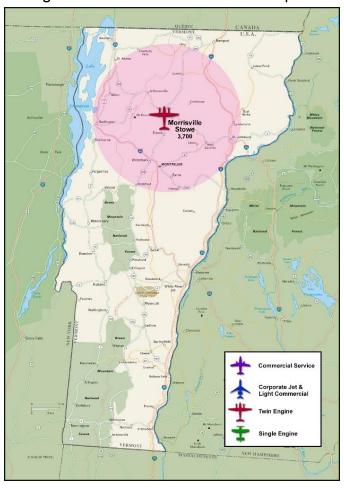


Figure 3-10: Morrisville-Stowe State Airport

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-10** presents a summary of each of these components of economic impact for Morrisville-Stowe State Airport.

Table 3-10: Morrisville-Stowe State Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$1,269,500
Airport Expenditures	\$3,499,900
Airport-Related Employment	36 Jobs
Estimated State and Local Taxes	\$334,700
Induced Impacts	
Induced Direct Impacts	\$2,702,000
Induced Income Impacts	\$923,900



Induced Employment Impacts	21 Jobs
Grand Total Dollar Impacts	\$6,201,900
Grand Total Income Impacts	\$2,193,500
Grand Total Employment Impacts	57 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.11 Northeast Kingdom International

Northeast Kingdom International Airport (EFK) is owned by the State of Vermont and managed and operated by the Operations Division of the Vermont Agency of Transportation. Located in the Town of Coventry, approximately one mile southwest of Lake Memphremagog — a large fresh water glacial lake that extends well into Canada — and three miles southwest of Newport, the Airport operates within the Vermont airport system as a general aviation airport.

EFK is the primary corporate aviation facility in the Northeast Kingdom region of Vermont. The nearest other jet capable airport is Burlington International (BTV) approximately 54 miles southwest. EFK covers an area of 540 acres with a primary asphalt runway (18/36) 5,300 feet x 100 feet, as well as a secondary runway (5/23) 3,996 feet x 100 feet. EFK is capable of serving light single and twin-engine propeller aircraft up to medium corporate jet operations.

The airport is located approximately 3 miles west of Interstate 91, which may be accessed via Airport Road approximately 7 miles north via US Route 5 and State Route 191; or approximately 9 miles south via Airport Road to Coventry Station Road to South US Route 5.

Direct impacts from on-Airport employment include 4.5 full time equivalent jobs that include airport operations/management personnel as well as Lakeview Aviation, which provides FBO and flight school services at the Airport. Airport capital expenditures average \$604,800 per year according to the NPIAS forecast. Unlike other airports in this study, the airport improvement plan records were not used to estimate capital expenditures due to anomalies in past spending (unusually high amounts). In addition to these direct economic impacts, the airport also provides spending form 248 annual visitors that use the Airport via itinerant general aviation.



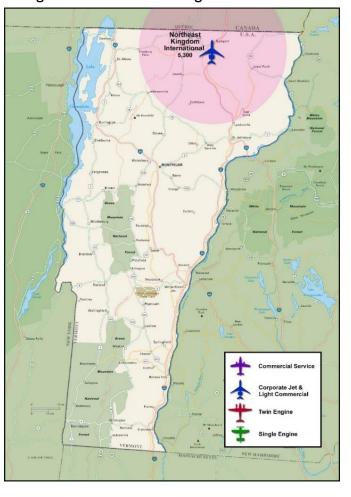


Figure 3-11: Northeast Kingdom International

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-11** presents a summary of each of these components of economic impact for Northeast Kingdom International Airport.

Table 3-11: Northeast Kingdom International Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$497,100
Airport Expenditures	\$1,345,400
Airport-Related Employment	11 Jobs
Estimated State and Local Taxes	\$98,400
Induced Impacts	
Induced Direct Impacts	\$1,064,900
Induced Income Impacts	\$365,800



Induced Employment Impacts	9 Jobs
Grand Total Dollar Impacts	\$2,410,300
Grand Total Income Impacts	\$862,900
Grand Total Employment Impacts	20 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.12 Post Mills

Post Mills Airport (2B9) is a privately-owned, public-use turf runway airport located in the Upper Connecticut River Valley in Orange County. The Airport is within the community of Post Mills and is primarily home to glider aircraft that prefer the two quiet grassy airstrips offered on the facility. Access to the airport is provided via Hangar Bay Lane to Robinson Hill Road to Vermont Route 244, which then connects to Vermont Route 113 to the west, and Route 5 and Interstate 91 to the East.

Direct economic imports from the Airport are derrived from the two jobs supported on the field. There is an A&P certified mechanic, as well as a company that builds, certifies, and inspects air balloons. No annual capital spending or visitor spending were recorded for this Airport.



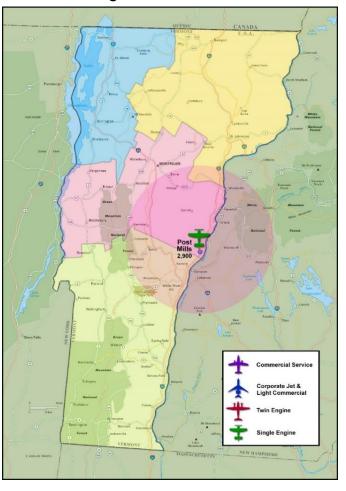


Figure 3-12: Post Mills

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-12** presents a summary of each of these components of economic impact for Post Mills Airport.

Table 3-12: Post Mills Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$93,200
Airport Expenditures	\$285,400
Airport-Related Employment	2 Jobs
Estimated State and Local Taxes	\$18,600
Induced Impacts	
Induced Direct Impacts	\$239,200
Induced Income Impacts	\$87,200



Induced Employment Impacts	2 Jobs
Grand Total Dollar Impacts	\$524,600
Grand Total Income Impacts	\$180,400
Grand Total Employment Impacts	4 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.13 Rutland-Southern Vermont Regional

Rutland — Southern Vermont Regional Airport (RUT) is owned by the State of Vermont and managed and operated by the Operations Division of the Vermont Agency of Transportation. Nestled in the heart of the beautiful Green Mountains in Rutland County in southeastern Vermont, the airport is five miles south of Rutland, Vermont's third largest city.

Commercial air service is provided by Cape Air, which operates a fleet of Cessna 402 twin-engine aircraft and offers three flights daily to and from Boston Logan International. In Boston, passengers may take advantage of more than 40 airlines flying nonstop over 100 domestic and international destinations. On-demand air charter service is provided by Altius, a premier FAA-certified aircraft charter and aviation services company.

Columbia Air Services provides fixed based operation (FBO) services at RUT. They are a full-service general aviation support facility specializing in sales, service, charter and management of jet, turboprop, and piston powered aircraft. Phillips 66 100LL & Jet A fuels are available, with self-serve Avgas.

SD Air Service Corp. is located at RUT, and offers a wide range of aircraft, from new manufactured composite Aircraft to WWI Aeroplanes. SD Air Service Corp. also offers structural repairs on sheet metal, tube, fabric and wood structures, and performs annual and 100-hour inspections, major repairs, alterations and general maintenance on all types.

Other employers at the airport include Green Mountain Flight Training and Hangar Café (restaurant). In total, there are 20 jobs supported on the field at RUT. Airport capital spending provides a direct impact of \$3.2 million per year according to airport improvement plan records, and visitor spending accounts for almost \$2.3 million in direct impacts as well.



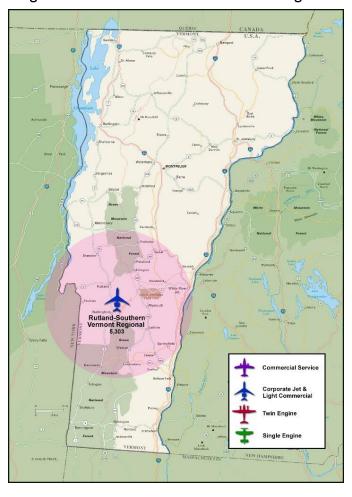


Figure 3-13: Rutland-Southern Vermont Regional

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-13** presents a summary of each of these components of economic impact for Rutland-Southern Vermont Regional Airport.

Table 3-13: Rutland-Southern Vermont Regional Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$2,961,700
Airport Expenditures	\$8,330,100
Airport-Related Employment	84 Jobs
Estimated State and Local Taxes	\$900,800
Induced Impacts	
Induced Direct Impacts	\$5,890,700
Induced Income Impacts	\$1,943,000



Induced Employment Impacts	45 Jobs
Grand Total Dollar Impacts	\$14,220,800
Grand Total Income Impacts	\$4,904,800
Grand Total Employment Impacts	129 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.14 Shelburne

Shelburne Airport (VT8) is located one mile south of the town of Shelburne, which is a suburb of Burlington. The airport has a 3,077-foot by 60-foot turf runway, and offers transient aircraft storage, major airframe and powerplant repairs, aircraft rental, and flight instruction. There is fullservice mogas available on the field.

There are no jobs currently supported on the field at Shelburne Airport, so direct economic impacts were estimated from the spending associated with 15 based aircraft on the field. Based on survey data form this study, these aircraft provide a direct impact of \$116,175 in annual spending. In addition to this, there was a small amount of visitor spending accounted for from an estimated 15 annual visitors using the Airport through general aviation itinerant operations.

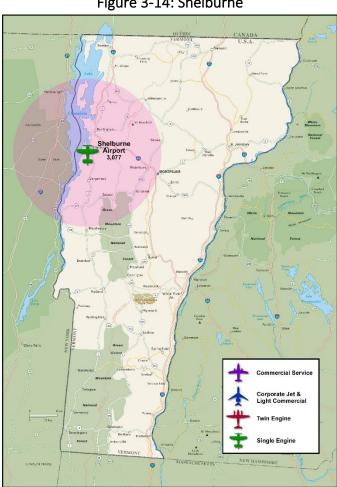


Figure 3-14: Shelburne



The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-14** presents a summary of each of these components of economic impact for Shelburne Airport.

Table 3-14: Shelburne Direct and Induced Economic Impacts

Table 5 14. Shelbarre Birect and madeed Economic Impacts	
ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$40,200
Airport Expenditures	\$122,100
Airport-Related Employment	1 Job
Estimated State and Local Taxes	\$8,500
Induced Impacts	
Induced Direct Impacts	\$101,500
Induced Income Impacts	\$36,800
Induced Employment Impacts	1 Job
Grand Total Dollar Impacts	\$223,600
Grand Total Income Impacts	\$77,000
Grand Total Employment Impacts	2 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.15 Warren-Sugarbush

Warren-Sugarbush Airport (OB7) is a privately-owned public-use asphalt runway airport nestled in the Mad River Valley between two ranges of the Green Mountains. This is along the northeast edge of the Green Mountain National Forest in Washington County. It is a premier soaring center, internationally recognized for its location, facilities, staff and soaring conditions. Sugarbush Soaring Association (SSA) provides flight instruction, scenic rides and youth programs through the season, May through October. SSA is unique in that they offer premium glider training seven days a week throughout the season. Depending on the weather, students could experience one of the three forms of soaring lift — thermal, ridge and mountain wave (or in some cases, all three).

OB7 covers an area of 125 acres and has one asphalt runway designated 04/22, with a 2,575-foot by 30-foot runway. There are minor services and 100LL fuel available on the Airport, along with airplane/sailplane rides, flight instruction, hangar space, tie downs, aircraft rental, charter, aerobatics, and food service during soaring season.

Top seasonal employers supported on the field include the Sugarbush Soaring Association and Ole's Nordic Ski Area. There were no capital spending figures recorded for the Airport, but visitor spending was estimated at 138 visitors per year from general aviation itinerant operations.

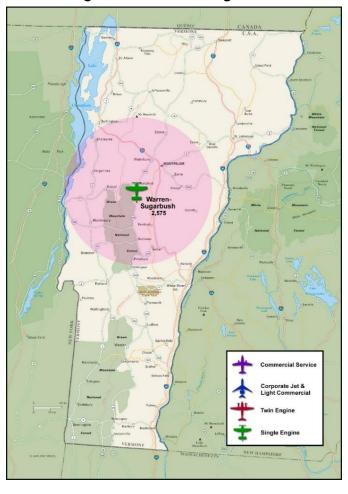


Figure 3-15: Warren-Sugarbush

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-15** presents a summary of each of these components of economic impact for Warren-Sugarbush Airport.

Table 3-15: Warren-Sugarbush Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$277,100
Airport Expenditures	\$839,600
Airport-Related Employment	6 Jobs
Estimated State and Local Taxes	\$59,600
Induced Impacts	



Induced Direct Impacts	\$695,800
Induced Income Impacts	\$252,000
Induced Employment Impacts	6 Jobs
Grand Total Dollar Impacts	\$1,535,300
Grand Total Income Impacts	\$529,000
Grand Total Employment Impacts	12 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.1.16 William H. Morse State

William H Morse State Airport (DDH) is owned by the State of Vermont and operated under the oversight of the nonprofit Bennington Airport Development Corp., which is under contract with the Vermont Department of Transportation. Located in Bennington County in southwestern Vermont three miles west of Bennington, the airport operates within the Vermont airport system as a regional service general aviation airport. Situated along Route 9 (Molly Stark Trail) and Route 7 (Ethan Allen Highway), the Airport is roughly equidistant from Bennington (to the east) and North Bennington (to the northeast.)

Hildt Aviation Bennington provides basic FBO ground services as well as oxygen service, hangars, aircraft maintenance, avionics, interior work, cleaning, and aircraft parts. 100LL and Jet-A is available 24/7 at the Airport's self-service fuel farm.

There were a total of 24 full time equivalent jobs recorded on the field at DDH. Other economic benefits associated with the Airport include the direct impact of capital improvements, which average \$621,400 per year according to airport improvement plan records. In addition to this, the airport provides a direct impact for the spending associated with 270 annual visitors to southern Vermont.



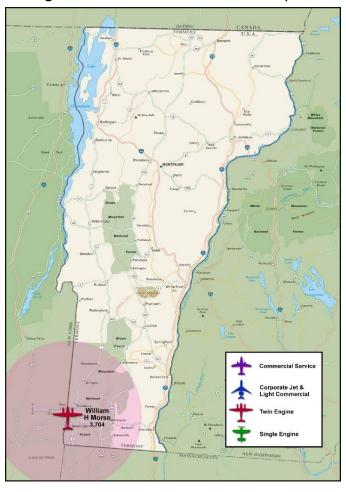


Figure 3-16: William H. Morse State Airport

The economic impact of the airport includes direct and induced components of output, employment and income. **Table 3-16** presents a summary of each of these components of economic impact for William H. Morse State Airport.

Table 3-16: William H. Morse State Direct and Induced Economic Impacts

ltem	Amount
Direct Impacts	
Airport-Related Payrolls*	\$1,536,700
Airport Expenditures	\$3,724,000
Airport-Related Employment	31 Jobs
Estimated State and Local Taxes	\$253,600
Induced Impacts	
Induced Direct Impacts	\$3,007,700
Induced Income Impacts	\$1,032,300



Induced Employment Impacts	23 Jobs
Grand Total Dollar Impacts	\$6,731,700
Grand Total Income Impacts	\$2,569,000
Grand Total Employment Impacts	54 Jobs

^{*} This is a subset of the total impacts and is already included in the output number.

3.2. ECONOMIC SUSTAINABILITY MEASURES

As a part of this study, economic sustainability measures were examined for Vermont airports that will permit airport management and policy makers to assess the value of additional aviation activity at their facilities. In this regard, the following incremental measures were documented:

- *Jet Aircraft:* The economic impact of one jet aircraft was estimated. This was necessarily a composite or average size jet and included the number of jobs, incomes, spending, and total overall economic output produced by one aircraft. Other operating parameters such as average annual fuel consumption, block hour costs, etc. was developed, as well.
- Multi-engine Aircraft: In addition to jet aircraft, similar metrics were produced for multiengine propeller aircraft. These aircraft types are often used for business purposes and as such will be included in the economic sustainability analysis.
- Other Economic Sustainability Factors: These included analyses of hangar construction as it impacts job creation and the importance of visitor spending impacts on job creation.

3.2.1 Jet Aircraft Impact

The impact of one jet aircraft to an airport either through itinerant operations or based in a hangar can be significant to the Airport's bottom line. Expenditures on jet aircraft will vary, but a simple rule is the bigger the aircraft, the more it will cost to own and maintain. The following gives examples of the cost for each size of business jet:

- A new Gulfstream G650 might cost \$65 million. After the initial outlay, there are then expected variable costs of \$1.9 million a year, as well as annual fixed costs of about \$1.2 million. Variable block hour costs run approximately \$4,750.²
- Less expensive in terms of initial outlay might be the Bombardier Challenger 605. A new model will cost around \$27 million, with used ones selling for \$15 million or thereabouts. Nevertheless, expected annual variable costs are \$1.5 million and fixed costs are about \$725,000 per year. Variable block hour costs run roughly \$3,580.3

³ Source: SherpReport, "How Much Does A Private Jet Cost?", Fiona Young-Brown, October 2016.



² Source: Business Insider "Tour the Gulfstream G650, The Best Private Jet \$65 Million Can Buy" Alex Davies



• An Embraer Phenom 300 will cost a little under \$9 million, with used models priced at about \$7-\$8 million. Annual variable costs are predicted to be near \$800,000, with an additional \$350,000 in fixed costs. Block hour costs run approximately \$1,860.4

Bombardier, the jet manufacturer, forecasts a worldwide need for 8,300 business jets over the next decade, creating \$250 billion in sales. This averages about \$30 million per jet.⁵

For this report, a composite business jet was estimated to cost \$1.3 million per year and require three full time equivalent personnel. Many pro formas for jet aircraft assume between 300 and 400 hours of use each year and block hour costs are based on these utilization estimates. Fuel costs are the highest variable expense, running roughly 60 percent of total variable costs. If one half of the fuel is bought at the home base airport, it can add up to more than \$350,000. This is important for airport FBOs and airport sponsors who receive a fuel flowage fee from fuel sales.

3.2.2 Multi-Engine Aircraft

The impact of a multi-engine aircraft can be significant on an airport, although not to the degree of jet aircraft. For this analysis, a Beechcraft King Air 350 was used as the pro-forma business multi-engine propeller aircraft. The King Air 350i is a twin turboprop aircraft, produced by Beechcraft, which is now part of Textron aviation (also the parent company of Cessna). The other aircraft in the family include the smaller King Air 250, the King Air C90GTx and an extended range King Air 350ER.

The price of a new King Air 350i is currently about \$8 million. A 6 or 7-year-old aircraft, built in 2009 to 2011, will cost in the region of \$4 to \$4.5 million and models that are 15 to 16 years old, 1999 to 2001 vintage, are typically in the range of \$2 to \$2.5 million. Prices on second-hand models vary depending on the level of use, maintenance, record keeping and upkeep. Variable costs are about \$350,000 per year, or about \$1,200 per hour, while fixed costs run about \$915,000 per year. Fuel costs are about 45 percent of variable costs, or about \$157,000 per year. If half of the fuel is bought at the local airport, it would total roughly \$79,000. There are no employment statistics concerning the King Air, but other studies have shown that it takes between 7 and 10 based aircraft to support one full time employee. For the average multi-engine aircraft, it can be assumed that expenditures would support one part-time employee.

3.2.3 Other Economic Sustainability Factors

Other economic sustainability factors were examined in order to aid planners and policy makers concerning the value of on-airport businesses. These included analyses of hangar construction as it impacts job creation and the importance of visitor spending impacts on job creation.



⁴ Source: Ibid.

⁵ Source: Bombardier Market Forecast, 2016-2025, p.25.



Aircraft Hangar Construction

The construction of aircraft hangars is one method of aircraft revenue development. For this analysis, the cost of developing conventional hangars was estimated at \$150 per square foot. Thus, for every \$1,000,000, roughly 6,700 square feet of hangar space can be developed. This is a little larger than an 80-foot by 80-foot hangar space — well capable of accommodating a business jet or several smaller propeller planes. From our analysis above, one jet aircraft created an equivalent of \$1.3 million in impacts and three full time employees.

A rough average of 2,200 square feet per employee will provide a good approximation of employment created by the development of hangar space. This does not include the temporary construction employment and impacts associated with the hangar development. That temporary impact can be estimated as 12 jobs per \$1 million construction investment and \$1.66 million in total output.

In addition to three operational jobs, the hangars themselves create rental revenues for the owner. If an airport develops the hangars, rental rates can vary from \$3 to \$12 per square foot per year. Much is dependent upon the condition of the hangar, service amenities, and location of the airport relative to demand centers. Applying these rates to the 6,700 square foot hangar, a range of annual revenues from \$20,100 to \$80,400 could be generated. The average of these is about \$50,000 per year or \$7.50 per square foot, which is a reasonable estimate.

From an airport management perspective, the following factors can be considered for hangar development:

- *Permanent Job Creation:* 3 jobs per \$1,000,000
- *Temporary Job Creation:* 12 jobs per \$1,000,000 (for hangar construction)
- *Permanent Economic Output:* \$1,300,000 per year (assuming hangar is occupied)
- *Temporary Economic Output:* \$1,660,000 per \$1,000,000 construction expenditure
- *Hangar Space:* 6,700 square feet per \$1,000,000
- Airport Revenues: \$50,000 per year on investment of \$1,000,000

If these numbers do not provide a payoff of construction loans and are not considered adequate return on investment, an airport sponsor may desire to have a private investor develop the hangar and simply collect ground lease revenue for a long-term lease.

Importance of Visitor Spending

From the economic impact analysis, the Vermont Department of Tourism and Marketing keeps records on visitor spending within the State. Their most recent benchmark report shows the spending patterns of visitors, broken down by type of visit. For this analysis, the most important fact involved their survey finding that the average overnight and second home Vermont visitor spending per trip in 2017 was \$471. This number involved 1.8 million overnight visitors who spent





\$980 million in Vermont, combined with another 1.8 million visitors using second homes who spent \$715 million.⁶

With an average multiplier of 1.71 for visitor spending, the total impact of each visitor is \$805.63. Thus, the more visitors and airport can attract, the higher the economic impact on the airport and surrounding communities. Using the same metrics, a total of 100 airport visitors supports one job in Vermont.

Airport impact of visitor spending is usually limited to food purchases at the airport, rental car fees collected by the airport, and any on-airport concessions used by visitors. The range of spending varies by airport and the amenities available. However, at a large airport like Burlington International, spending can include food, rental cars, and other concession purchases. These fees can average \$10 to \$20 per visitor.

 $6\ Source: Tourism\ in\ Vermont-2017\ Benchmark\ Report,\ Vermont\ Department\ of\ Tourism\ and\ Marketing,\ 2018.$





Appendix 3-A: IMPLAN Table Results

Basin Harbor Economic Impact

Employment							
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0		
20	Mining	0.0	0.0	0.0	0.0		
41	Utilities	0.0	0.0	0.0	0.0		
52	Construction	0.0	0.0	0.0	0.0		
65	Manufacturing	0.0	0.0	0.0	0.0		
395	Wholesale Trade	0.0	0.0	0.0	0.0		
396	Retail trade	0.1	0.0	0.0	0.2		
408	Transportation & Warehousing	0.1	0.0	0.0	0.2		
417	Information	0.0	0.0	0.0	0.0		
433	Finance & insurance	0.0	0.0	0.0	0.0		
440	Real estate & rental	0.0	0.0	0.0	0.0		
447	Professional- scientific & tech svcs	0.0	0.0	0.0	0.0		
461	Management of companies	0.0	0.0	0.0	0.0		
462	Administrative & waste services	0.0	0.0	0.0	0.0		
472	Educational svcs	0.0	0.0	0.0	0.0		
475	Health & social services	0.0	0.0	0.1	0.1		

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Multiplier: 1.33

Total

Other services

488

499

504

520

Arts- entertainment & recreation

Accommodation & food services

Government & non NAICs

0.0

0.0

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	Income							
Sector	Description	Direct	Indirect	Induced	Total			
1	Ag, Forestry, Fish & Hunting	\$0	\$19	\$25	\$44			
20	Mining	\$0	\$8	\$3	\$11			
41	Utilities	\$0	\$345	\$136	\$481			
52	Construction	\$0	\$510	\$188	\$698			
65	Manufacturing	\$0	\$166	\$92	\$258			
395	Wholesale Trade	\$0	\$387	\$401	\$788			
396	Retail trade	\$3,828	\$244	\$1,497	\$5,570			
408	Transportation & Warehousing	\$5,169	\$1,479	\$342	\$6,990			
417	Information	\$0	\$413	\$250	\$663			
433	Finance & insurance	\$0	\$708	\$844	\$1,553			
440	Real estate & rental	\$0	\$372	\$223	\$595			
447	Professional- scientific & tech svcs	\$0	\$1,920	\$709	\$2,629			
461	Management of companies	\$0	\$402	\$78	\$480			
462	Administrative & waste services	\$0	\$1,170	\$414	\$1,584			
472	Educational svcs	\$0	\$33	\$567	\$600			
475	Health & social services	\$0	\$1	\$3,587	\$3,588			
488	Arts- entertainment & recreation	\$4,987	\$476	\$230	\$5,694			
499	Accommodation & food services	\$22,000	\$364	\$745	\$23,109			
504	Other services	\$0	\$449	\$1,019	\$1,468			
520	Government & non NAICs	\$0	\$114	\$94	\$208			
	Total	\$35,985	\$9,584	\$11,443	\$57,012			

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$92	\$106	\$199
20	Mining	\$0	\$51	\$27	\$78
41	Utilities	\$0	\$2,384	\$936	\$3,320
52	Construction	\$0	\$1,237	\$476	\$1,713
65	Manufacturing	\$0	\$1,084	\$713	\$1,797
395	Wholesale Trade	\$0	\$1,265	\$1,310	\$2,575
396	Retail trade	\$7,726	\$567	\$3,673	\$11,966
408	Transportation & Warehousing	\$13,542	\$2,944	\$752	\$17,237
417	Information	\$0	\$2,057	\$1,467	\$3,524
433	Finance & insurance	\$0	\$2,621	\$3,450	\$6,071
440	Real estate & rental	\$0	\$5,393	\$7,719	\$13,112
447	Professional- scientific & tech svcs	\$0	\$3,831	\$1,449	\$5,280
461	Management of companies	\$0	\$921	\$180	\$1,100
462	Administrative & waste services	\$0	\$2,668	\$899	\$3,568
472	Educational svcs	\$0	\$57	\$958	\$1,015
475	Health & social services	\$0	\$2	\$6,417	\$6,418
488	Arts- entertainment & recreation	\$14,659	\$1,284	\$883	\$16,827
499	Accommodation & food services	\$59,278	\$826	\$2,021	\$62,124
504	Other services	\$0	\$844	\$1,636	\$2,481
520	Government & non NAICs	\$0	\$374	\$309	\$683
	Total	\$95,204	\$30,503	\$35,381	\$161,088







	State a	State and Local Tax Impact							
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations				
Dividends					\$20				
Social Ins Tax- Employee Contr.	\$0	\$0							
Social Ins Tax- Employer Contr.		\$0							
TOPI: Sales Tax			\$4,968						
TOPI: Property Tax			\$7,437						
TOPI: Motor Vehicle Lic			\$140						
TOPI: Severance Tax			\$0						
TOPI: Other Taxes			\$402						
TOPI: S/L NonTaxes			\$16						
Corporate Profits Tax					\$245				
Personal Tax: Income Tax				\$1,110					
Personal Tax: NonTaxes (Fines- Fees				\$189					
Personal Tax: Motor Vehicle License				\$78					
Personal Tax: Property Taxes				\$40					
Personal Tax: Other Tax (Fish/Hunt)				\$61					
Total State/Local Tax	\$0	\$0	\$12,962	\$1,478	\$266				

	Income	Compensation	And Imports		
Social Ins Tax- Employee Contr.	\$238	\$3,489			
Social Ins Tax- Employer Contr.		\$3,355			
TOPI: Excise Taxes			\$995		
TOPI: Custom Duty			\$375		
TOPI: Fed NonTaxes			\$47		
Corporate Profits Tax					\$1,271
Personal Tax: Income Tax				\$3,563	
Total Federal Tax	\$238	\$6,844	\$1,417	\$3,563	\$1,271



Burlington International Economic Impact

		Employment			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	3.3	4.9	8.1
20	Mining	0.0	2.1	0.4	2.5
41	Utilities	0.0	4.4	2.9	7.4
52	Construction	111.3	30.4	11.6	153.3
65	Manufacturing	22.0	7.9	5.2	35.1
395	Wholesale Trade	0.0	18.3	17.5	35.8
396	Retail trade	186.5	28.2	135.9	350.5
408	Transportation & Warehousing	755.9	192.5	20.1	968.5
417	Information	0.0	14.8	12.2	27.0
433	Finance & insurance	0.0	24.3	41.9	66.2
440	Real estate & rental	0.0	49.7	39.9	89.6
447	Professional- scientific & tech svcs	6.0	73.6	37.2	116.8
461	Management of companies	0.0	9.3	2.5	11.8
462	Administrative & waste services	23.0	88.8	35.9	147.7
472	Educational svcs	57.0	3.3	44.9	105.2
475	Health & social services	12.0	0.0	191.2	203.2
488	Arts- entertainment & recreation	335.4	39.7	34.4	409.5
499	Accommodation & food services	1277.0	35.7	96.3	1409.1
504	Other services	4.0	21.8	85.9	111.7
520	Government & non NAICs	667.0	6.2	3.0	676.2
	Total	3,457.1	654.2	823.8	4,935.1



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$46,179	\$75,768	\$121,946
20	Mining	\$0	\$58,885	\$9,343	\$68,228
41	Utilities	\$0	\$611,191	\$406,151	\$1,017,342
52	Construction	\$5,388,589	\$1,469,711	\$561,788	\$7,420,089
65	Manufacturing	\$1,106,089	\$421,262	\$275,148	\$1,802,499
395	Wholesale Trade	\$0	\$1,251,040	\$1,198,991	\$2,450,031
396	Retail trade	\$5,234,113	\$919,136	\$4,475,020	\$10,628,269
408	Transportation & Warehousing	\$33,328,636	\$10,000,110	\$1,022,270	\$44,351,016
417	Information	\$0	\$845,283	\$746,666	\$1,591,949
433	Finance & insurance	\$0	\$1,646,286	\$2,523,922	\$4,170,207
440	Real estate & rental	\$0	\$894,639	\$665,229	\$1,559,869
447	Professional- scientific & tech svcs	\$390,584	\$4,314,767	\$2,119,140	\$6,824,491
461	Management of companies	\$0	\$891,309	\$234,529	\$1,125,838
462	Administrative & waste services	\$562,650	\$3,145,782	\$1,236,924	\$4,945,356
472	Educational svcs	\$1,231,180	\$79,793	\$1,693,815	\$3,004,788
475	Health & social services	\$538,242	\$1,876	\$10,722,489	\$11,262,607
488	Arts- entertainment & recreation	\$6,411,495	\$683,592	\$686,507	\$7,781,594
499	Accommodation & food services	\$29,006,814	\$899,680	\$2,226,327	\$32,132,822
504	Other services	\$194,464	\$1,055,783	\$3,045,959	\$4,296,206
520	Government & non NAICs	\$23,011,651	\$578,607	\$281,655	\$23,871,912
	Total	\$106,404,509	\$29,814,911	\$34,207,641	\$170,427,061

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$178,993	\$317,872	\$496,865
20	Mining	\$0	\$381,120	\$79,989	\$461,109
41	Utilities	\$0	\$4,160,747	\$2,798,204	\$6,958,951
52	Construction	\$13,028,424	\$3,563,384	\$1,422,105	\$18,013,913
65	Manufacturing	\$5,301,957	\$2,435,566	\$2,131,891	\$9,869,414
395	Wholesale Trade	\$0	\$4,086,395	\$3,916,380	\$8,002,775
396	Retail trade	\$10,512,565	\$2,122,171	\$10,980,867	\$23,615,603
408	Transportation & Warehousing	\$123,740,433	\$21,815,693	\$2,247,222	\$147,803,347
417	Information	\$0	\$4,238,025	\$4,385,054	\$8,623,079
433	Finance & insurance	\$0	\$6,020,518	\$10,312,062	\$16,332,581
440	Real estate & rental	\$0	\$11,395,535	\$23,074,879	\$34,470,414
447	Professional- scientific & tech svcs	\$533,756	\$8,496,845	\$4,331,347	\$13,361,948
461	Management of companies	\$0	\$2,042,478	\$537,436	\$2,579,913
462	Administrative & waste services	\$1,002,426	\$7,363,134	\$2,688,036	\$11,053,597
472	Educational svcs	\$2,070,982	\$136,289	\$2,864,690	\$5,071,962
475	Health & social services	\$1,062,766	\$3,534	\$19,181,109	\$20,247,409
488	Arts- entertainment & recreation	\$18,844,951	\$1,866,971	\$2,640,826	\$23,352,748
499	Accommodation & food services	\$77,756,276	\$1,980,954	\$6,041,104	\$85,778,334
504	Other services	\$558,964	\$1,990,043	\$4,891,157	\$7,440,164
520	Government & non NAICs	\$35,100,152	\$1,905,998	\$924,605	\$37,930,756
	Total	\$289,513,653	\$86,184,394	\$105,766,835	\$481,464,881





	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$66,145
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$11,211,165		
TOPI: Property Tax			\$16,781,773		
TOPI: Motor Vehicle Lic			\$315,423		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$906,486		
TOPI: S/L NonTaxes			\$35,026		
Corporate Profits Tax					\$791,949
Personal Tax: Income Tax				\$3,318,971	
Personal Tax: NonTaxes (Fines- Fees				\$565,700	
Personal Tax: Motor Vehicle License				\$231,922	
Personal Tax: Property Taxes				\$120,938	
Personal Tax: Other Tax (Fish/Hunt)				\$181,971	
Total State/Local Tax	\$0	\$0	\$29,249,874	\$4,419,502	\$858,094

Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$711,262	\$10,428,525			_
Social Ins Tax- Employer Contr.		\$10,027,068			
TOPI: Excise Taxes			\$2,244,467		
TOPI: Custom Duty			\$846,819		
TOPI: Fed NonTaxes			\$106,800		
Corporate Profits Tax					\$4,108,287
Personal Tax: Income Tax				\$10,652,212	
Total Federal Tax	\$711,262	\$20,455,593	\$3,198,086	\$10,652,212	\$4,108,287

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Caledonia County State Economic Impact

Employment							
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0		
20	Mining	0.0	0.0	0.0	0.0		
41	Utilities	0.0	0.0	0.0	0.0		
52	Construction	0.6	0.0	0.0	0.7		
65	Manufacturing	0.0	0.0	0.0	0.0		
395	Wholesale Trade	0.0	0.0	0.0	0.0		
396	Retail trade	0.1	0.1	0.1	0.3		
408	Transportation & Warehousing	1.1	0.3	0.0	1.4		
417	Information	0.0	0.0	0.0	0.0		
433	Finance & insurance	0.0	0.0	0.0	0.1		
440	Real estate & rental	0.0	0.0	0.0	0.1		
447	Professional- scientific & tech svcs	0.0	0.1	0.0	0.1		
461	Management of companies	0.0	0.0	0.0	0.0		
462	Administrative & waste services	0.0	0.1	0.0	0.1		
472	Educational svcs	0.0	0.0	0.0	0.0		
475	Health & social services	0.0	0.0	0.2	0.2		
488	Arts- entertainment & recreation	0.2	0.0	0.0	0.2		

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0.9

Multiplier: 1.65

Total

Other services

Accommodation & food services

Government & non NAICs

499

504

520



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$101	\$78	\$179
20	Mining	\$0	\$171	\$10	\$180
41	Utilities	\$0	\$568	\$416	\$984
52	Construction	\$29,467	\$1,947	\$577	\$31,991
65	Manufacturing	\$0	\$834	\$282	\$1,117
395	Wholesale Trade	\$0	\$1,849	\$1,231	\$3,080
396	Retail trade	\$2,557	\$2,981	\$4,597	\$10,135
408	Transportation & Warehousing	\$50,058	\$16,699	\$1,051	\$67,808
417	Information	\$0	\$726	\$766	\$1,492
433	Finance & insurance	\$0	\$1,672	\$2,588	\$4,260
440	Real estate & rental	\$0	\$843	\$682	\$1,525
447	Professional- scientific & tech svcs	\$0	\$4,246	\$2,179	\$6,425
461	Management of companies	\$0	\$793	\$241	\$1,033
462	Administrative & waste services	\$0	\$3,523	\$1,272	\$4,795
472	Educational svcs	\$0	\$43	\$1,754	\$1,797
475	Health & social services	\$0	\$1	\$11,003	\$11,004
488	Arts- entertainment & recreation	\$3,326	\$441	\$707	\$4,474
499	Accommodation & food services	\$14,685	\$490	\$2,287	\$17,462
504	Other services	\$0	\$1,301	\$3,126	\$4,428
520	Government & non NAICs	\$0	\$685	\$289	\$973
	Total	\$100,092	\$39,915	\$35,134	\$175,141

	Output						
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	\$0	\$279	\$326	\$605		
20	Mining	\$0	\$1,311	\$82	\$1,393		
41	Utilities	\$0	\$3,791	\$2,866	\$6,657		
52	Construction	\$71,244	\$4,718	\$1,461	\$77,423		
65	Manufacturing	\$0	\$4,440	\$2,188	\$6,628		
395	Wholesale Trade	\$0	\$6,039	\$4,021	\$10,060		
396	Retail trade	\$5,160	\$6,886	\$11,280	\$23,326		
408	Transportation & Warehousing	\$151,721	\$35,814	\$2,311	\$189,845		
417	Information	\$0	\$3,730	\$4,497	\$8,227		
433	Finance & insurance	\$0	\$6,085	\$10,574	\$16,659		
440	Real estate & rental	\$0	\$10,293	\$23,725	\$34,017		
447	Professional- scientific & tech svcs	\$0	\$8,332	\$4,453	\$12,786		
461	Management of companies	\$0	\$1,816	\$552	\$2,368		
462	Administrative & waste services	\$0	\$8,223	\$2,765	\$10,988		
472	Educational svcs	\$0	\$75	\$2,966	\$3,040		
475	Health & social services	\$0	\$1	\$19,677	\$19,678		
488	Arts- entertainment & recreation	\$9,776	\$1,236	\$2,717	\$13,729		
499	Accommodation & food services	\$39,568	\$1,189	\$6,205	\$46,962		
504	Other services	\$0	\$2,448	\$5,020	\$7,468		
520	Government & non NAICs	\$0	\$2,256	\$947	\$3,204		
	Total	\$277,468	\$108,961	\$108,633	\$495,063		







State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$48	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$7,202			
TOPI: Property Tax			\$10,780			
TOPI: Motor Vehicle Lic			\$203			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$582			
TOPI: S/L NonTaxes			\$22			
Corporate Profits Tax					\$579	
Personal Tax: Income Tax				\$3,430		
Personal Tax: NonTaxes (Fines- Fees				\$585		
Personal Tax: Motor Vehicle License				\$240		
Personal Tax: Property Taxes				\$125		
Personal Tax: Other Tax (Fish/Hunt)				\$188		
Total State/Local Tax	\$0	\$0	\$18,789	\$4,567	\$628	

		aciai ian iiipact			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$1,165	\$10,059			
Social Ins Tax- Employer Contr.		\$9,672			
TOPI: Excise Taxes			\$1,442		
TOPI: Custom Duty			\$544		
TOPI: Fed NonTaxes			\$69		
Corporate Profits Tax					\$3,006
Personal Tax: Income Tax				\$11,008	
Total Federal Tax	\$1,165	\$19,730	\$2,054	\$11,008	\$3,006



Deerfield Valley Regional Economic Impact

Employment					
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	0.0	0.0	0.0	0.0
65	Manufacturing	0.0	0.0	0.0	0.0
395	Wholesale Trade	0.0	0.0	0.0	0.0
396	Retail trade	0.1	0.0	0.1	0.2
408	Transportation & Warehousing	0.5	0.1	0.0	0.6
417	Information	0.0	0.0	0.0	0.0
433	Finance & insurance	0.0	0.0	0.0	0.0
440	Real estate & rental	0.0	0.0	0.0	0.0
447	Professional- scientific & tech svcs	0.0	0.0	0.0	0.0
461	Management of companies	0.0	0.0	0.0	0.0
462	Administrative & waste services	0.0	0.0	0.0	0.1
472	Educational svcs	0.0	0.0	0.0	0.0
475	Health & social services	0.0	0.0	0.1	0.1
488	Arts- entertainment & recreation	0.2	0.0	0.0	0.2
499	Accommodation & food services	0.7	0.0	0.0	0.7
504	Other services	0.0	0.0	0.0	0.0

0.0

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2.1

Multiplier: 1.50

Total

Government & non NAICs

520



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$18	\$32	\$50
20	Mining	\$0	\$25	\$4	\$29
41	Utilities	\$0	\$322	\$174	\$496
52	Construction	\$0	\$925	\$241	\$1,166
65	Manufacturing	\$0	\$158	\$118	\$276
395	Wholesale Trade	\$0	\$485	\$514	\$998
396	Retail trade	\$2,605	\$252	\$1,918	\$4,775
408	Transportation & Warehousing	\$21,225	\$6,767	\$438	\$28,430
417	Information	\$0	\$382	\$320	\$702
433	Finance & insurance	\$0	\$828	\$1,082	\$1,910
440	Real estate & rental	\$0	\$391	\$285	\$676
447	Professional- scientific & tech svcs	\$0	\$1,955	\$908	\$2,864
461	Management of companies	\$0	\$442	\$101	\$542
462	Administrative & waste services	\$0	\$1,695	\$530	\$2,225
472	Educational svcs	\$0	\$27	\$726	\$753
475	Health & social services	\$0	\$1	\$4,596	\$4,596
488	Arts- entertainment & recreation	\$3,388	\$357	\$294	\$4,040
499	Accommodation & food services	\$14,960	\$303	\$954	\$16,217
504	Other services	\$0	\$575	\$1,306	\$1,880
520	Government & non NAICs	\$0	\$300	\$121	\$421
	Total	\$42,178	\$16,206	\$14,662	\$73,046

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$81	\$136	\$217
20	Mining	\$0	\$109	\$34	\$143
41	Utilities	\$0	\$2,174	\$1,199	\$3,373
52	Construction	\$0	\$2,242	\$610	\$2,852
65	Manufacturing	\$0	\$938	\$914	\$1,852
395	Wholesale Trade	\$0	\$1,583	\$1,679	\$3,261
396	Retail trade	\$5,256	\$581	\$4,706	\$10,543
408	Transportation & Warehousing	\$63,425	\$14,332	\$963	\$78,719
417	Information	\$0	\$1,940	\$1,880	\$3,820
433	Finance & insurance	\$0	\$3,082	\$4,420	\$7,502
440	Real estate & rental	\$0	\$5,280	\$9,890	\$15,170
447	Professional- scientific & tech svcs	\$0	\$3,831	\$1,856	\$5,687
461	Management of companies	\$0	\$1,012	\$230	\$1,242
462	Administrative & waste services	\$0	\$3,934	\$1,152	\$5,086
472	Educational svcs	\$0	\$46	\$1,228	\$1,274
475	Health & social services	\$0	\$1	\$8,221	\$8,223
488	Arts- entertainment & recreation	\$9,959	\$980	\$1,132	\$12,071
499	Accommodation & food services	\$40,310	\$704	\$2,589	\$43,603
504	Other services	\$0	\$1,077	\$2,096	\$3,174
520	Government & non NAICs	\$0	\$989	\$396	\$1,385
	Total	\$118,950	\$44,914	\$45,333	\$209,197





State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$25	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$4,336			
TOPI: Property Tax			\$6,490			
TOPI: Motor Vehicle Lic			\$122			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$351			
TOPI: S/L NonTaxes			\$14			
Corporate Profits Tax					\$304	
Personal Tax: Income Tax				\$1,422		
Personal Tax: NonTaxes (Fines- Fees				\$242		
Personal Tax: Motor Vehicle License				\$99		
Personal Tax: Property Taxes				\$52		
Personal Tax: Other Tax (Fish/Hunt)				\$78		
Total State/Local Tax	\$0	\$0	\$11,312	\$1,894	\$329	

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Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$302	\$4,473			
Social Ins Tax- Employer Contr.		\$4,301			
TOPI: Excise Taxes			\$868		
TOPI: Custom Duty			\$328		
TOPI: Fed NonTaxes			\$41		
Corporate Profits Tax					\$1,575
Personal Tax: Income Tax				\$4,565	
Total Federal Tax	\$302	\$8,774	\$1,237	\$4,565	\$1,575



Edward F. Knapp State Economic Impact

		Employment			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	0.5	0.3	0.1	0.8
65	Manufacturing	0.0	0.0	0.0	0.1
395	Wholesale Trade	0.0	0.1	0.1	0.2
396	Retail trade	0.6	0.1	0.7	1.5
408	Transportation & Warehousing	7.6	2.2	0.1	9.9
417	Information	0.0	0.1	0.1	0.1
433	Finance & insurance	0.0	0.1	0.2	0.4
440	Real estate & rental	0.0	0.3	0.2	0.5
447	Professional- scientific & tech svcs	0.0	0.4	0.2	0.6
461	Management of companies	0.0	0.1	0.0	0.1
462	Administrative & waste services	0.0	0.6	0.2	0.8
472	Educational svcs	0.0	0.0	0.2	0.3
475	Health & social services	0.0	0.0	1.0	1.0
488	Arts- entertainment & recreation	1.2	0.2	0.2	1.5
499	Accommodation & food services	4.4	0.1	0.5	5.0
504	Other services	0.0	0.1	0.5	0.6
520	Government & non NAICs	0.0	0.0	0.0	0.1
	Total	14.3	4.8	4.5	23.5

Multiplier: 1.64



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$238	\$411	\$649
20	Mining	\$0	\$486	\$51	\$536
41	Utilities	\$0	\$3,243	\$2,204	\$5,447
52	Construction	\$23,400	\$13,016	\$3,049	\$39,465
65	Manufacturing	\$0	\$2,049	\$1,493	\$3,542
395	Wholesale Trade	\$0	\$6,616	\$6,508	\$13,124
396	Retail trade	\$17,225	\$4,741	\$24,290	\$46,257
408	Transportation & Warehousing	\$349,498	\$113,223	\$5,550	\$468,271
417	Information	\$0	\$3,871	\$4,052	\$7,923
433	Finance & insurance	\$0	\$9,797	\$13,696	\$23,494
440	Real estate & rental	\$0	\$4,391	\$3,610	\$8,001
447	Professional- scientific & tech svcs	\$0	\$21,601	\$11,504	\$33,104
461	Management of companies	\$0	\$4,972	\$1,273	\$6,245
462	Administrative & waste services	\$0	\$22,125	\$6,715	\$28,840
472	Educational svcs	\$0	\$234	\$9,204	\$9,438
475	Health & social services	\$0	\$5	\$58,193	\$58,197
488	Arts- entertainment & recreation	\$22,409	\$2,786	\$3,727	\$28,923
499	Accommodation & food services	\$98,939	\$2,733	\$12,084	\$113,755
504	Other services	\$0	\$7,212	\$16,531	\$23,743
520	Government & non NAICs	\$0	\$4,633	\$1,528	\$6,162
	Total	\$511,471	\$227,973	\$185,673	\$925,117

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$880	\$1,725	\$2,605
20	Mining	\$0	\$2,448	\$434	\$2,882
41	Utilities	\$0	\$21,495	\$15,183	\$36,678
52	Construction	\$56,575	\$31,538	\$7,720	\$95,832
65	Manufacturing	\$0	\$11,118	\$11,570	\$22,688
395	Wholesale Trade	\$0	\$21,611	\$21,256	\$42,867
396	Retail trade	\$34,762	\$10,904	\$59,604	\$105,270
408	Transportation & Warehousing	\$1,059,672	\$241,494	\$12,199	\$1,313,366
417	Information	\$0	\$19,964	\$23,796	\$43,760
433	Finance & insurance	\$0	\$36,452	\$55,959	\$92,412
440	Real estate & rental	\$0	\$55,915	\$125,264	\$181,178
447	Professional- scientific & tech svcs	\$0	\$41,831	\$23,513	\$65,344
461	Management of companies	\$0	\$11,394	\$2,917	\$14,311
462	Administrative & waste services	\$0	\$51,738	\$14,593	\$66,331
472	Educational svcs	\$0	\$407	\$15,566	\$15,972
475	Health & social services	\$0	\$9	\$104,095	\$104,104
488	Arts- entertainment & recreation	\$65,866	\$7,817	\$14,337	\$88,020
499	Accommodation & food services	\$266,589	\$6,551	\$32,790	\$305,931
504	Other services	\$0	\$13,510	\$26,546	\$40,055
520	Government & non NAICs	\$0	\$15,269	\$5,017	\$20,286
	Total	\$1,483,464	\$602,344	\$574,085	\$2,659,893







	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$306
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$41,070		
TOPI: Property Tax			\$61,477		
TOPI: Motor Vehicle Lic			\$1,155		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$3,321		
TOPI: S/L NonTaxes			\$128		
Corporate Profits Tax					\$3,668
Personal Tax: Income Tax				\$18,030	
Personal Tax: NonTaxes (Fines- Fees				\$3,073	
Personal Tax: Motor Vehicle License				\$1,260	
Personal Tax: Property Taxes				\$657	
Personal Tax: Other Tax (Fish/Hunt)				\$989	
Total State/Local Tax	\$0	\$0	\$107,151	\$24,008	\$3,974

Total Federal Tax	\$4,169	\$110,122	\$11,716	\$57,866	\$19,027
Personal Tax: Income Tax				\$57,866	
Corporate Profits Tax					\$19,027
TOPI: Fed NonTaxes			\$391		
TOPI: Custom Duty			\$3,102		
TOPI: Excise Taxes			\$8,222		
Social Ins Tax- Employer Contr.		\$53,980			
Social Ins Tax- Employee Contr.	\$4,169	\$56,141			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



Franklin County State Economic Impact

Employment							
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0		
20	Mining	0.0	0.0	0.0	0.0		
41	Utilities	0.0	0.0	0.0	0.0		
52	Construction	0.6	0.3	0.1	1.0		
65	Manufacturing	0.0	0.0	0.0	0.1		
395	Wholesale Trade	0.0	0.1	0.1	0.2		
396	Retail trade	0.0	0.2	0.9	1.1		
408	Transportation & Warehousing	8.0	2.4	0.1	10.6		
417	Information	0.0	0.1	0.1	0.2		
433	Finance & insurance	0.0	0.2	0.3	0.4		
440	Real estate & rental	0.0	0.3	0.3	0.6		
447	Professional- scientific & tech svcs	0.0	0.4	0.2	0.6		
461	Management of companies	0.0	0.0	0.0	0.1		
462	Administrative & waste services	0.0	0.7	0.2	0.9		
472	Educational svcs	10.0	0.1	0.3	10.4		
475	Health & social services	0.0	0.0	1.2	1.2		
488	Arts- entertainment & recreation	0.1	0.1	0.2	0.4		
499	Accommodation & food services	0.3	0.1	0.6	1.0		
504	Other services	0.0	0.1	0.6	0.7		
520	Government & non NAICs	0.0	0.1	0.0	0.1		
	Total	19.1	5.2	5.3	29.7		



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$201	\$489	\$690
20	Mining	\$0	\$545	\$60	\$605
41	Utilities	\$0	\$2,330	\$2,621	\$4,951
52	Construction	\$31,176	\$13,337	\$3,628	\$48,140
65	Manufacturing	\$0	\$2,298	\$1,776	\$4,074
395	Wholesale Trade	\$0	\$6,516	\$7,740	\$14,256
396	Retail trade	\$1,262	\$5,082	\$28,895	\$35,239
408	Transportation & Warehousing	\$374,559	\$124,340	\$6,602	\$505,501
417	Information	\$0	\$5,563	\$4,819	\$10,382
433	Finance & insurance	\$0	\$11,292	\$16,289	\$27,581
440	Real estate & rental	\$0	\$5,140	\$4,293	\$9,433
447	Professional- scientific & tech svcs	\$0	\$23,695	\$13,686	\$37,381
461	Management of companies	\$0	\$4,645	\$1,514	\$6,159
462	Administrative & waste services	\$0	\$24,313	\$7,989	\$32,302
472	Educational svcs	\$215,996	\$3,131	\$10,960	\$230,087
475	Health & social services	\$0	\$1	\$69,214	\$69,216
488	Arts- entertainment & recreation	\$1,642	\$1,247	\$4,435	\$7,324
499	Accommodation & food services	\$7,251	\$2,087	\$14,375	\$23,712
504	Other services	\$0	\$7,049	\$19,663	\$26,712
520	Government & non NAICs	\$0	\$4,976	\$1,817	\$6,793
	Total	\$631,886	\$247,787	\$220,865	\$1,100,538

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$612	\$2,052	\$2,664
20	Mining	\$0	\$2,794	\$517	\$3,310
41	Utilities	\$0	\$15,009	\$18,054	\$33,063
52	Construction	\$75,376	\$32,321	\$9,183	\$116,880
65	Manufacturing	\$0	\$11,543	\$13,762	\$25,305
395	Wholesale Trade	\$0	\$21,283	\$25,283	\$46,566
396	Retail trade	\$2,548	\$11,678	\$70,903	\$85,128
408	Transportation & Warehousing	\$1,145,909	\$266,124	\$14,514	\$1,426,547
417	Information	\$0	\$29,856	\$28,301	\$58,157
433	Finance & insurance	\$0	\$41,454	\$66,551	\$108,005
440	Real estate & rental	\$0	\$63,941	\$149,026	\$212,967
447	Professional- scientific & tech svcs	\$0	\$45,648	\$27,973	\$73,622
461	Management of companies	\$0	\$10,644	\$3,470	\$14,114
462	Administrative & waste services	\$0	\$56,296	\$17,363	\$73,659
472	Educational svcs	\$363,330	\$5,277	\$18,535	\$387,142
475	Health & social services	\$0	\$3	\$123,805	\$123,808
488	Arts- entertainment & recreation	\$4,827	\$3,752	\$17,058	\$25,637
499	Accommodation & food services	\$19,537	\$5,419	\$39,006	\$63,961
504	Other services	\$0	\$13,370	\$31,574	\$44,944
520	Government & non NAICs	\$0	\$16,399	\$5,966	\$22,365
	Total	\$1,611,526	\$653,423	\$682,896	\$2,947,845





	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$316
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$30,548		
TOPI: Property Tax			\$45,727		
TOPI: Motor Vehicle Lic			\$859		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$2,470		
TOPI: S/L NonTaxes			\$95		
Corporate Profits Tax					\$3,779
Personal Tax: Income Tax				\$21,464	
Personal Tax: NonTaxes (Fines- Fees				\$3,658	
Personal Tax: Motor Vehicle License				\$1,500	
Personal Tax: Property Taxes				\$782	
Personal Tax: Other Tax (Fish/Hunt)				\$1,177	
Total State/Local Tax	\$0	\$0	\$79,700	\$28,581	\$4,094

Total Federal Tax	\$5,314	\$129,949	\$8,714	\$68,889	\$19,603
Personal Tax: Income Tax				\$68,889	
Corporate Profits Tax					\$19,603
TOPI: Fed NonTaxes			\$291		
TOPI: Custom Duty			\$2,307		
TOPI: Excise Taxes			\$6,116		
Social Ins Tax- Employer Contr.		\$63,699			
Social Ins Tax- Employee Contr.	\$5,314	\$66,250			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



Hartness State Economic Impact

	Employment								
Sector	Description	Direct	Indirect	Induced	Total				
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0				
20	Mining	0.0	0.0	0.0	0.0				
41	Utilities	0.0	0.0	0.0	0.0				
52	Construction	1.7	0.1	0.0	1.8				
65	Manufacturing	0.0	0.0	0.0	0.1				
395	Wholesale Trade	0.0	0.1	0.1	0.1				
396	Retail trade	0.2	0.3	0.5	0.9				
408	Transportation & Warehousing	3.7	1.1	0.1	4.9				
417	Information	0.0	0.0	0.0	0.1				
433	Finance & insurance	0.0	0.1	0.1	0.2				
440	Real estate & rental	0.0	0.2	0.1	0.3				
447	Professional- scientific & tech svcs	1.0	0.2	0.1	1.4				
461	Management of companies	0.0	0.0	0.0	0.0				
462	Administrative & waste services	0.0	0.3	0.1	0.5				
472	Educational svcs	0.0	0.0	0.2	0.2				
475	Health & social services	0.0	0.0	0.6	0.6				
488	Arts- entertainment & recreation	0.4	0.1	0.1	0.6				
499	Accommodation & food services	1.4	0.1	0.3	1.8				
504	Other services	0.0	0.1	0.3	0.4				
520	Government & non NAICs	0.0	0.0	0.0	0.0				
	Total	8.3	2.8	2.8	13.8				



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$280	\$253	\$532
20	Mining	\$0	\$501	\$31	\$532
41	Utilities	\$0	\$1,715	\$1,351	\$3,066
52	Construction	\$79,920	\$6,404	\$1,879	\$88,204
65	Manufacturing	\$0	\$2,405	\$919	\$3,324
395	Wholesale Trade	\$0	\$5,683	\$4,005	\$9,687
396	Retail trade	\$5,417	\$8,234	\$14,963	\$28,614
408	Transportation & Warehousing	\$170,435	\$57,149	\$3,424	\$231,008
417	Information	\$0	\$2,346	\$2,491	\$4,837
433	Finance & insurance	\$0	\$5,337	\$8,412	\$13,748
440	Real estate & rental	\$0	\$2,753	\$2,215	\$4,969
447	Professional- scientific & tech svcs	\$31,048	\$13,691	\$7,095	\$51,834
461	Management of companies	\$0	\$2,436	\$783	\$3,220
462	Administrative & waste services	\$0	\$11,698	\$4,142	\$15,841
472	Educational svcs	\$0	\$113	\$5,740	\$5,853
475	Health & social services	\$0	\$2	\$35,785	\$35,787
488	Arts- entertainment & recreation	\$7,047	\$1,169	\$2,303	\$10,519
499	Accommodation & food services	\$31,113	\$1,701	\$7,443	\$40,257
504	Other services	\$0	\$4,936	\$10,169	\$15,105
520	Government & non NAICs	\$0	\$2,319	\$938	\$3,257
	Total	\$324,981	\$130,873	\$114,341	\$570,195

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$762	\$1,060	\$1,822
20	Mining	\$0	\$3,698	\$268	\$3,966
41	Utilities	\$0	\$11,400	\$9,310	\$20,710
52	Construction	\$193,230	\$15,520	\$4,758	\$213,508
65	Manufacturing	\$0	\$12,404	\$7,117	\$19,521
395	Wholesale Trade	\$0	\$18,562	\$13,081	\$31,643
396	Retail trade	\$10,932	\$19,010	\$36,716	\$66,657
408	Transportation & Warehousing	\$518,536	\$122,505	\$7,526	\$648,567
417	Information	\$0	\$12,157	\$14,619	\$26,776
433	Finance & insurance	\$0	\$19,560	\$34,370	\$53,930
440	Real estate & rental	\$0	\$33,682	\$77,265	\$110,947
447	Professional- scientific & tech svcs	\$58,578	\$26,745	\$14,503	\$99,826
461	Management of companies	\$0	\$5,583	\$1,795	\$7,378
462	Administrative & waste services	\$0	\$27,125	\$9,009	\$36,134
472	Educational svcs	\$0	\$198	\$9,704	\$9,902
475	Health & social services	\$0	\$4	\$63,982	\$63,986
488	Arts- entertainment & recreation	\$20,713	\$3,313	\$8,853	\$32,879
499	Accommodation & food services	\$83,835	\$4,212	\$20,195	\$108,242
504	Other services	\$0	\$8,843	\$16,329	\$25,172
520	Government & non NAICs	\$0	\$7,642	\$3,078	\$10,720
	Total	\$885,823	\$352,925	\$353,539	\$1,592,288







	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$155
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$20,962		
TOPI: Property Tax			\$31,378		
TOPI: Motor Vehicle Lic			\$590		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$1,695		
TOPI: S/L NonTaxes			\$65		
Corporate Profits Tax					\$1,856
Personal Tax: Income Tax				\$11,209	
Personal Tax: NonTaxes (Fines- Fees				\$1,911	
Personal Tax: Motor Vehicle License				\$783	
Personal Tax: Property Taxes				\$408	
Personal Tax: Other Tax (Fish/Hunt)				\$615	
Total State/Local Tax	\$0	\$0	\$54,691	\$14,926	\$2,012

Total Federal Tax	\$4,774	\$61,316	\$5,980	\$35,976	\$9,631
Personal Tax: Income Tax				\$35,976	
Corporate Profits Tax					\$9,631
TOPI: Fed NonTaxes			\$200		
TOPI: Custom Duty			\$1,583		
TOPI: Excise Taxes			\$4,197		
Social Ins Tax- Employer Contr.		\$30,056			
Social Ins Tax- Employee Contr.	\$4,774	\$31,260			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



John H Boylan State Economic Impact

		Employment			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	0.0	0.0	0.0	0.0
65	Manufacturing	0.0	0.0	0.0	0.0
395	Wholesale Trade	0.0	0.0	0.0	0.0
396	Retail trade	0.0	0.0	0.0	0.0
408	Transportation & Warehousing	0.2	0.1	0.0	0.2
417	Information	0.0	0.0	0.0	0.0
433	Finance & insurance	0.0	0.0	0.0	0.0
440	Real estate & rental	0.0	0.0	0.0	0.0
447	Professional- scientific & tech svcs	0.0	0.0	0.0	0.0
461	Management of companies	0.0	0.0	0.0	0.0
462	Administrative & waste services	0.0	0.0	0.0	0.0
472	Educational svcs	0.0	0.0	0.0	0.0
475	Health & social services	0.0	0.0	0.0	0.0
488	Arts- entertainment & recreation	0.0	0.0	0.0	0.0
499	Accommodation & food services	0.1	0.0	0.0	0.1
504	Other services	0.0	0.0	0.0	0.0

0.0

0.4

0.0

0.1

0.0

0.1

0.0

0.6

Multiplier: 1.5

Total

Government & non NAICs

520



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$5	\$10	\$15
20	Mining	\$0	\$9	\$1	\$11
41	Utilities	\$0	\$85	\$54	\$139
52	Construction	\$0	\$318	\$74	\$392
65	Manufacturing	\$0	\$42	\$36	\$78
395	Wholesale Trade	\$0	\$148	\$159	\$307
396	Retail trade	\$527	\$70	\$592	\$1,190
408	Transportation & Warehousing	\$8,301	\$2,673	\$135	\$11,109
417	Information	\$0	\$100	\$99	\$199
433	Finance & insurance	\$0	\$246	\$334	\$580
440	Real estate & rental	\$0	\$110	\$88	\$198
447	Professional- scientific & tech svcs	\$0	\$543	\$280	\$823
461	Management of companies	\$0	\$127	\$31	\$158
462	Administrative & waste services	\$0	\$546	\$164	\$710
472	Educational svcs	\$0	\$6	\$224	\$230
475	Health & social services	\$0	\$0	\$1,418	\$1,418
488	Arts- entertainment & recreation	\$686	\$80	\$91	\$857
499	Accommodation & food services	\$3,029	\$74	\$294	\$3,397
504	Other services	\$0	\$177	\$403	\$580
520	Government & non NAICs	\$0	\$111	\$37	\$148
	Total	\$12,544	\$5,472	\$4,524	\$22,540

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$20	\$42	\$62
20	Mining	\$0	\$39	\$11	\$49
41	Utilities	\$0	\$565	\$370	\$935
52	Construction	\$0	\$771	\$188	\$959
65	Manufacturing	\$0	\$236	\$282	\$518
395	Wholesale Trade	\$0	\$484	\$518	\$1,002
396	Retail trade	\$1,064	\$162	\$1,452	\$2,678
408	Transportation & Warehousing	\$25,100	\$5,689	\$297	\$31,086
417	Information	\$0	\$515	\$580	\$1,095
433	Finance & insurance	\$0	\$918	\$1,364	\$2,282
440	Real estate & rental	\$0	\$1,434	\$3,052	\$4,485
447	Professional- scientific & tech svcs	\$0	\$1,053	\$573	\$1,625
461	Management of companies	\$0	\$292	\$71	\$363
462	Administrative & waste services	\$0	\$1,276	\$355	\$1,631
472	Educational svcs	\$0	\$11	\$379	\$390
475	Health & social services	\$0	\$0	\$2,537	\$2,537
488	Arts- entertainment & recreation	\$2,016	\$222	\$349	\$2,588
499	Accommodation & food services	\$8,161	\$175	\$799	\$9,135
504	Other services	\$0	\$332	\$647	\$979
520	Government & non NAICs	\$0	\$366	\$122	\$488
	Total	\$36,341	\$14,559	\$13,988	\$64,888





	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$8
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$1,094		
TOPI: Property Tax			\$1,638		
TOPI: Motor Vehicle Lic			\$31		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$88		
TOPI: S/L NonTaxes			\$3		
Corporate Profits Tax					\$92
Personal Tax: Income Tax				\$439	
Personal Tax: NonTaxes (Fines- Fees				\$75	
Personal Tax: Motor Vehicle License				\$31	
Personal Tax: Property Taxes				\$16	
Personal Tax: Other Tax (Fish/Hunt)				\$24	
Total State/Local Tax	\$0	\$0	\$2,855	\$584	\$100

Federal Tax Impac	t	C	ı	a	ã)	c	ı	١	r	1	ľ	ı	1	×	ľ	2		T		ı	3	7	r	2	6	ł	C	2	E	=	1	
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	Income	Compensation	And Imports		
Social Ins Tax- Employee Contr.	\$93	\$1,381			
Social Ins Tax- Employer Contr.		\$1,328			
TOPI: Excise Taxes			\$219		
TOPI: Custom Duty			\$83		
TOPI: Fed NonTaxes			\$10		
Corporate Profits Tax					\$479
Personal Tax: Income Tax				\$1,409	
Total Federal Tax	\$93	\$2,708	\$312	\$1,409	\$479



Middlebury State Economic Impact

		Employment			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.1	0.0	0.1
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.1
52	Construction	5.2	0.4	0.1	5.7
65	Manufacturing	0.0	0.1	0.0	0.2
395	Wholesale Trade	0.0	0.2	0.1	0.4
396	Retail trade	0.2	0.8	1.1	2.1
408	Transportation & Warehousing	10.7	3.2	0.2	14.1
417	Information	0.0	0.1	0.1	0.2
433	Finance & insurance	0.0	0.2	0.4	0.5
440	Real estate & rental	0.0	0.3	0.3	0.7
447	Professional- scientific & tech svcs	0.0	0.5	0.3	0.8
461	Management of companies	0.0	0.1	0.0	0.1
462	Administrative & waste services	0.0	0.9	0.3	1.2
472	Educational svcs	0.0	0.0	0.4	0.4
475	Health & social services	0.0	0.0	1.6	1.6
488	Arts- entertainment & recreation	0.4	0.1	0.3	0.8
499	Accommodation & food services	1.5	0.1	0.8	2.4
504	Other services	0.0	0.2	0.7	0.9
520	Government & non NAICs	0.0	0.1	0.0	0.1
	Total	18.0	7.4	6.9	32.3

Multiplier: 1.79



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$814	\$637	\$1,451
20	Mining	\$0	\$1,528	\$79	\$1,607
41	Utilities	\$0	\$3,857	\$3,409	\$7,266
52	Construction	\$252,583	\$17,476	\$4,731	\$274,790
65	Manufacturing	\$0	\$6,679	\$2,315	\$8,994
395	Wholesale Trade	\$0	\$15,341	\$10,088	\$25,428
396	Retail trade	\$5,800	\$24,965	\$37,676	\$68,440
408	Transportation & Warehousing	\$497,201	\$166,152	\$8,615	\$671,969
417	Information	\$0	\$5,002	\$6,277	\$11,279
433	Finance & insurance	\$0	\$13,112	\$21,207	\$34,319
440	Real estate & rental	\$0	\$6,355	\$5,587	\$11,942
447	Professional- scientific & tech svcs	\$0	\$31,615	\$17,856	\$49,471
461	Management of companies	\$0	\$5,958	\$1,973	\$7,931
462	Administrative & waste services	\$0	\$29,839	\$10,424	\$40,263
472	Educational svcs	\$0	\$249	\$14,379	\$14,627
475	Health & social services	\$0	\$3	\$90,170	\$90,172
488	Arts- entertainment & recreation	\$7,546	\$1,947	\$5,792	\$15,284
499	Accommodation & food services	\$33,316	\$2,949	\$18,741	\$55,007
504	Other services	\$0	\$10,631	\$25,620	\$36,252
520	Government & non NAICs	\$0	\$6,522	\$2,365	\$8,887
	Total	\$796,446	\$350,993	\$287,940	\$1,435,379

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$2,090	\$2,672	\$4,762
20	Mining	\$0	\$11,397	\$674	\$12,070
41	Utilities	\$0	\$25,270	\$23,487	\$48,757
52	Construction	\$610,689	\$42,345	\$11,978	\$665,011
65	Manufacturing	\$0	\$34,520	\$17,932	\$52,452
395	Wholesale Trade	\$0	\$50,109	\$32,950	\$83,059
396	Retail trade	\$11,706	\$57,629	\$92,449	\$161,783
408	Transportation & Warehousing	\$1,518,657	\$357,171	\$18,939	\$1,894,767
417	Information	\$0	\$26,064	\$36,852	\$62,916
433	Finance & insurance	\$0	\$47,726	\$86,648	\$134,374
440	Real estate & rental	\$0	\$73,726	\$194,441	\$268,167
447	Professional- scientific & tech svcs	\$0	\$61,525	\$36,498	\$98,023
461	Management of companies	\$0	\$13,653	\$4,522	\$18,175
462	Administrative & waste services	\$0	\$70,017	\$22,664	\$92,681
472	Educational svcs	\$0	\$438	\$24,313	\$24,751
475	Health & social services	\$0	\$5	\$161,251	\$161,257
488	Arts- entertainment & recreation	\$22,179	\$5,738	\$22,268	\$50,186
499	Accommodation & food services	\$89,770	\$7,443	\$50,854	\$148,067
504	Other services	\$0	\$19,984	\$41,140	\$61,124
520	Government & non NAICs	\$0	\$21,495	\$7,763	\$29,258
	Total	\$2,253,001	\$928,346	\$890,294	\$4,071,642







	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$387
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$45,691		
TOPI: Property Tax			\$68,394		
TOPI: Motor Vehicle Lic			\$1,285		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$3,694		
TOPI: S/L NonTaxes			\$143		
Corporate Profits Tax					\$4,630
Personal Tax: Income Tax				\$28,116	
Personal Tax: NonTaxes (Fines- Fees				\$4,792	
Personal Tax: Motor Vehicle License				\$1,965	
Personal Tax: Property Taxes				\$1,025	
Personal Tax: Other Tax (Fish/Hunt)				\$1,542	
Total State/Local Tax	\$0	\$0	\$119,207	\$37,439	\$5,017

		aciai ian iiipact			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$9,701	\$82,205			
Social Ins Tax- Employer Contr.		\$79,040			
TOPI: Excise Taxes			\$9,147		
TOPI: Custom Duty			\$3,451		
TOPI: Fed NonTaxes			\$435		
Corporate Profits Tax					\$24,020
Personal Tax: Income Tax				\$90,239	
Total Federal Tax	\$9,701	\$161,244	\$13,034	\$90,239	\$24,020



Morrisville-Stowe State Economic Impact

		Employment			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.1	0.1	0.1
20	Mining	0.0	0.1	0.0	0.1
41	Utilities	0.0	0.1	0.0	0.1
52	Construction	6.5	0.5	0.1	7.2
65	Manufacturing	0.0	0.2	0.1	0.2
395	Wholesale Trade	0.0	0.3	0.2	0.5
396	Retail trade	1.6	1.0	1.7	4.4
408	Transportation & Warehousing	12.8	3.7	0.3	16.7
417	Information	0.0	0.2	0.2	0.3
433	Finance & insurance	0.0	0.3	0.5	0.9
440	Real estate & rental	0.0	0.6	0.5	1.1
447	Professional- scientific & tech svcs	0.0	0.9	0.5	1.4
461	Management of companies	0.0	0.1	0.0	0.1
462	Administrative & waste services	0.0	1.3	0.5	1.7
472	Educational svcs	0.0	0.0	0.6	0.6
475	Health & social services	0.0	0.0	2.5	2.5
488	Arts- entertainment & recreation	3.2	0.4	0.4	4.1
499	Accommodation & food services	11.9	0.3	1.2	13.4
504	Other services	0.0	0.3	1.1	1.4
520	Government & non NAICs	0.0	0.1	0.0	0.1
	Total	36.0	10.5	10.6	57.1



	Income						
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	\$0	\$1,186	\$974	\$2,160		
20	Mining	\$0	\$1,882	\$120	\$2,002		
41	Utilities	\$0	\$7,910	\$5,213	\$13,123		
52	Construction	\$315,773	\$23,900	\$7,230	\$346,903		
65	Manufacturing	\$0	\$9,825	\$3,538	\$13,363		
395	Wholesale Trade	\$0	\$21,956	\$15,418	\$37,374		
396	Retail trade	\$46,923	\$33,261	\$57,577	\$137,761		
408	Transportation & Warehousing	\$576,035	\$190,803	\$13,164	\$780,001		
417	Information	\$0	\$9,969	\$9,596	\$19,564		
433	Finance & insurance	\$0	\$21,795	\$32,421	\$54,216		
440	Real estate & rental	\$0	\$11,035	\$8,542	\$19,577		
447	Professional- scientific & tech svcs	\$0	\$55,785	\$27,285	\$83,070		
461	Management of companies	\$0	\$10,670	\$3,016	\$13,686		
462	Administrative & waste services	\$0	\$44,402	\$15,927	\$60,330		
472	Educational svcs	\$0	\$632	\$21,942	\$22,574		
475	Health & social services	\$0	\$13	\$137,830	\$137,842		
488	Arts- entertainment & recreation	\$61,130	\$7,185	\$8,848	\$77,163		
499	Accommodation & food services	\$269,649	\$7,157	\$28,642	\$305,448		
504	Other services	\$0	\$16,441	\$39,161	\$55,602		
520	Government & non NAICs	\$0	\$8,084	\$3,616	\$11,700		
	Total	\$1,269,510	\$483,890	\$440,058	\$2,193,458		

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$3,469	\$4,084	\$7,553
20	Mining	\$0	\$14,368	\$1,030	\$15,397
41	Utilities	\$0	\$53,203	\$35,913	\$89,116
52	Construction	\$763,469	\$57,919	\$18,303	\$839,691
65	Manufacturing	\$0	\$53,259	\$27,409	\$80,667
395	Wholesale Trade	\$0	\$71,717	\$50,362	\$122,079
396	Retail trade	\$94,695	\$76,829	\$141,284	\$312,807
408	Transportation & Warehousing	\$1,735,468	\$408,018	\$28,938	\$2,172,424
417	Information	\$0	\$50,871	\$56,337	\$107,208
433	Finance & insurance	\$0	\$79,558	\$132,466	\$212,024
440	Real estate & rental	\$0	\$139,033	\$297,106	\$436,138
447	Professional- scientific & tech svcs	\$0	\$109,766	\$55,769	\$165,535
461	Management of companies	\$0	\$24,451	\$6,911	\$31,362
462	Administrative & waste services	\$0	\$103,323	\$34,627	\$137,950
472	Educational svcs	\$0	\$1,096	\$37,103	\$38,199
475	Health & social services	\$0	\$25	\$246,496	\$246,521
488	Arts- entertainment & recreation	\$179,677	\$19,890	\$34,022	\$233,589
499	Accommodation & food services	\$726,562	\$17,064	\$77,719	\$821,345
504	Other services	\$0	\$30,918	\$62,882	\$93,801
520	Government & non NAICs	\$0	\$26,635	\$11,870	\$38,505
	Total	\$3,499,871	\$1,341,411	\$1,360,631	\$6,201,913





State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$632	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$103,249			
TOPI: Property Tax			\$154,551			
TOPI: Motor Vehicle Lic			\$2,905			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$8,348			
TOPI: S/L NonTaxes			\$323			
Corporate Profits Tax					\$7,563	
Personal Tax: Income Tax				\$42,920		
Personal Tax: NonTaxes (Fines- Fees				\$7,316		
Personal Tax: Motor Vehicle License				\$2,999		
Personal Tax: Property Taxes				\$1,564		
Personal Tax: Other Tax (Fish/Hunt)				\$2,353		
Total State/Local Tax	\$0	\$0	\$269,375	\$57,152	\$8,194	

Personal Tax: Income Tax Total Federal Tax	\$13,802	\$249,443	\$29,453	\$137,753 \$137,753	\$39,232
Corporate Profits Tax					\$39,232
TOPI: Fed NonTaxes			\$984		
TOPI: Custom Duty			\$7,799		
TOPI: Excise Taxes			\$20,670		
Social Ins Tax- Employer Contr.		\$122,274			
Social Ins Tax- Employee Contr.	\$13,802	\$127,169			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



Northeast Kingdom International Economic Impact

Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.1
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	5.2	0.2	0.1	5.4
65	Manufacturing	0.0	0.1	0.0	0.1
395	Wholesale Trade	0.0	0.2	0.1	0.3
396	Retail trade	0.1	0.7	0.7	1.5
408	Transportation & Warehousing	4.6	1.4	0.1	6.2
417	Information	0.0	0.1	0.1	0.1
433	Finance & insurance	0.0	0.1	0.2	0.3
440	Real estate & rental	0.0	0.2	0.2	0.4
447	Professional- scientific & tech svcs	0.0	0.3	0.2	0.5
461	Management of companies	0.0	0.0	0.0	0.0
462	Administrative & waste services	0.0	0.4	0.2	0.6
472	Educational svcs	0.0	0.0	0.2	0.2
475	Health & social services	0.0	0.0	1.0	1.0
488	Arts- entertainment & recreation	0.3	0.1	0.2	0.5
499	Accommodation & food services	1.0	0.1	0.5	1.6
504	Other services	0.0	0.1	0.4	0.6
520	Government & non NAICs	0.0	0.0	0.0	0.0
	Total	11.2	4.2	4.2	19.6



Income						
Sector	Description	Direct	Indirect	Induced	Total	
1	Ag, Forestry, Fish & Hunting	\$0	\$719	\$382	\$1,101	
20	Mining	\$0	\$1,206	\$47	\$1,254	
41	Utilities	\$0	\$2,306	\$2,045	\$4,351	
52	Construction	\$250,163	\$8,092	\$2,844	\$261,099	
65	Manufacturing	\$0	\$5,847	\$1,391	\$7,238	
395	Wholesale Trade	\$0	\$11,581	\$6,060	\$17,641	
396	Retail trade	\$3,963	\$23,277	\$22,643	\$49,883	
408	Transportation & Warehousing	\$215,080	\$74,426	\$5,181	\$294,686	
417	Information	\$0	\$3,188	\$3,769	\$6,958	
433	Finance & insurance	\$0	\$7,277	\$12,728	\$20,006	
440	Real estate & rental	\$0	\$3,987	\$3,352	\$7,339	
447	Professional- scientific & tech svcs	\$0	\$20,330	\$10,738	\$31,068	
461	Management of companies	\$0	\$3,101	\$1,185	\$4,286	
462	Administrative & waste services	\$0	\$15,050	\$6,269	\$21,318	
472	Educational svcs	\$0	\$166	\$8,689	\$8,855	
475	Health & social services	\$0	\$2	\$54,151	\$54,152	
488	Arts- entertainment & recreation	\$5,155	\$1,186	\$3,485	\$9,827	
499	Accommodation & food services	\$22,761	\$1,899	\$11,263	\$35,923	
504	Other services	\$0	\$6,142	\$15,388	\$21,530	
520	Government & non NAICs	\$0	\$2,947	\$1,419	\$4,366	
	Total	\$497,122	\$192,728	\$173,030	\$862,880	

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$1,749	\$1,604	\$3,353
20	Mining	\$0	\$10,120	\$405	\$10,525
41	Utilities	\$0	\$15,337	\$14,087	\$29,424
52	Construction	\$604,839	\$19,611	\$7,200	\$631,650
65	Manufacturing	\$0	\$30,554	\$10,770	\$41,325
395	Wholesale Trade	\$0	\$37,828	\$19,794	\$57,622
396	Retail trade	\$7,997	\$53,783	\$55,562	\$117,342
408	Transportation & Warehousing	\$656,075	\$160,949	\$11,390	\$828,414
417	Information	\$0	\$16,451	\$22,122	\$38,573
433	Finance & insurance	\$0	\$25,875	\$52,008	\$77,883
440	Real estate & rental	\$0	\$45,463	\$116,928	\$162,391
447	Professional- scientific & tech svcs	\$0	\$40,125	\$21,948	\$62,074
461	Management of companies	\$0	\$7,106	\$2,716	\$9,822
462	Administrative & waste services	\$0	\$35,192	\$13,634	\$48,826
472	Educational svcs	\$0	\$292	\$14,690	\$14,982
475	Health & social services	\$0	\$3	\$96,818	\$96,822
488	Arts- entertainment & recreation	\$15,153	\$3,429	\$13,397	\$31,980
499	Accommodation & food services	\$61,330	\$4,772	\$30,561	\$96,663
504	Other services	\$0	\$11,589	\$24,709	\$36,299
520	Government & non NAICs	\$0	\$9,713	\$4,657	\$14,370
	Total	\$1,345,395	\$529,943	\$535,002	\$2,410,340







State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$196	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$28,071			
TOPI: Property Tax			\$42,019			
TOPI: Motor Vehicle Lic			\$790			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$2,270			
TOPI: S/L NonTaxes			\$88			
Corporate Profits Tax					\$2,347	
Personal Tax: Income Tax				\$16,967		
Personal Tax: NonTaxes (Fines- Fees				\$2,892		
Personal Tax: Motor Vehicle License				\$1,186		
Personal Tax: Property Taxes				\$618		
Personal Tax: Other Tax (Fish/Hunt)				\$930		
Total State/Local Tax	\$0	\$0	\$73,237	\$22,593	\$2,543	

Total Federal Tax	\$7,310	\$92,535	\$8,008	\$54,455	\$12,174
Personal Tax: Income Tax				\$54,455	
Corporate Profits Tax					\$12,174
TOPI: Fed NonTaxes			\$267		
TOPI: Custom Duty			\$2,120		
TOPI: Excise Taxes			\$5,620		
Social Ins Tax- Employer Contr.		\$45,359			
Social Ins Tax- Employee Contr.	\$7,310	\$47,175			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



Post Mills Economic Impact

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Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	0.0	0.1	0.0	0.1
65	Manufacturing	0.0	0.0	0.0	0.0
395	Wholesale Trade	0.0	0.0	0.0	0.0
396	Retail trade	0.0	0.0	0.1	0.2
408	Transportation & Warehousing	2.0	0.6	0.0	2.6
417	Information	0.0	0.0	0.0	0.0
433	Finance & insurance	0.0	0.0	0.0	0.1
440	Real estate & rental	0.0	0.0	0.0	0.1
447	Professional- scientific & tech svcs	0.0	0.1	0.0	0.1
461	Management of companies	0.0	0.0	0.0	0.0
462	Administrative & waste services	0.0	0.1	0.0	0.2
472	Educational svcs	0.0	0.0	0.0	0.0
475	Health & social services	0.0	0.0	0.2	0.2
488	Arts- entertainment & recreation	0.0	0.0	0.0	0.0
499	Accommodation & food services	0.0	0.0	0.1	0.1
504	Other services	0.0	0.0	0.1	0.1
520	Government & non NAICs	0.0	0.0	0.0	0.0
	Total	2.0	1.0	0.9	3.9



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$27	\$80	\$107
20	Mining	\$0	\$103	\$10	\$113
41	Utilities	\$0	\$459	\$430	\$889
52	Construction	\$0	\$3,044	\$595	\$3,639
65	Manufacturing	\$0	\$234	\$291	\$525
395	Wholesale Trade	\$0	\$1,164	\$1,269	\$2,433
396	Retail trade	\$0	\$453	\$4,738	\$5,190
408	Transportation & Warehousing	\$93,214	\$30,324	\$1,082	\$124,620
417	Information	\$0	\$533	\$791	\$1,324
433	Finance & insurance	\$0	\$1,824	\$2,672	\$4,496
440	Real estate & rental	\$0	\$723	\$704	\$1,428
447	Professional- scientific & tech svcs	\$0	\$3,420	\$2,244	\$5,664
461	Management of companies	\$0	\$886	\$248	\$1,134
462	Administrative & waste services	\$0	\$4,732	\$1,310	\$6,042
472	Educational svcs	\$0	\$22	\$1,793	\$1,815
475	Health & social services	\$0	\$0	\$11,352	\$11,353
488	Arts- entertainment & recreation	\$0	\$176	\$727	\$903
499	Accommodation & food services	\$0	\$289	\$2,357	\$2,646
504	Other services	\$0	\$1,417	\$3,225	\$4,642
520	Government & non NAICs	\$0	\$1,173	\$298	\$1,471
	Total	\$93,214	\$51,003	\$36,217	\$180,433

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$94	\$337	\$431
20	Mining	\$0	\$388	\$85	\$472
41	Utilities	\$0	\$2,910	\$2,963	\$5,872
52	Construction	\$0	\$7,375	\$1,506	\$8,880
65	Manufacturing	\$0	\$1,061	\$2,257	\$3,319
395	Wholesale Trade	\$0	\$3,801	\$4,146	\$7,948
396	Retail trade	\$0	\$1,027	\$11,626	\$12,653
408	Transportation & Warehousing	\$285,361	\$64,898	\$2,379	\$352,639
417	Information	\$0	\$2,850	\$4,643	\$7,493
433	Finance & insurance	\$0	\$6,839	\$10,918	\$17,758
440	Real estate & rental	\$0	\$8,492	\$24,429	\$32,921
447	Professional- scientific & tech svcs	\$0	\$6,451	\$4,586	\$11,036
461	Management of companies	\$0	\$2,030	\$569	\$2,599
462	Administrative & waste services	\$0	\$11,158	\$2,846	\$14,004
472	Educational svcs	\$0	\$39	\$3,032	\$3,072
475	Health & social services	\$0	\$0	\$20,308	\$20,309
488	Arts- entertainment & recreation	\$0	\$562	\$2,796	\$3,358
499	Accommodation & food services	\$0	\$751	\$6,396	\$7,147
504	Other services	\$0	\$2,648	\$5,178	\$7,826
520	Government & non NAICs	\$0	\$3,866	\$979	\$4,844
	Total	\$285,361	\$127,240	\$111,978	\$524,580





	State a	nd Local Tax Impa	ct		
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Dividends					\$60
Social Ins Tax- Employee Contr.	\$0	\$0			
Social Ins Tax- Employer Contr.		\$0			
TOPI: Sales Tax			\$5,041		
TOPI: Property Tax			\$7,546		
TOPI: Motor Vehicle Lic			\$142		
TOPI: Severance Tax			\$0		
TOPI: Other Taxes			\$408		
TOPI: S/L NonTaxes			\$16		
Corporate Profits Tax					\$720
Personal Tax: Income Tax				\$3,513	
Personal Tax: NonTaxes (Fines- Fees				\$599	
Personal Tax: Motor Vehicle License				\$246	
Personal Tax: Property Taxes				\$128	
Personal Tax: Other Tax (Fish/Hunt)				\$193	
Total State/Local Tax	\$0	\$0	\$13,153	\$4,678	\$781

Federal Tax Impac	t	C	ı	a	ã)	c	ı	١	r	n	ı	ı	X	1	2	٠,	T	ı	ı	а	r	1	е	ŀ	d	9	е	-(F	
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Corporate Profits Tax Personal Tax: Income Tax			*	\$11,276	\$3,737
TOPI: Custom Duty TOPI: Fed NonTaxes			\$381 \$48		
TOPI: Excise Taxes			\$1,009		
Social Ins Tax- Employer Contr.		\$10,632			
Social Ins Tax- Employee Contr.	\$742	\$11,058			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



Rutland-Southern Vermont Regional Economic Impact

Emp	loyment	

Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.3	0.1	0.4
20	Mining	0.0	0.2	0.0	0.2
41	Utilities	0.0	0.1	0.1	0.2
52	Construction	27.4	0.7	0.3	28.5
65	Manufacturing	0.0	0.6	0.1	0.7
395	Wholesale Trade	0.0	1.0	0.5	1.5
396	Retail trade	3.2	3.9	3.9	11.0
408	Transportation & Warehousing	16.5	4.6	0.6	21.7
417	Information	0.0	0.4	0.4	0.8
433	Finance & insurance	0.0	0.7	1.2	1.9
440	Real estate & rental	0.0	1.5	1.1	2.7
447	Professional- scientific & tech svcs	0.0	2.3	1.1	3.4
461	Management of companies	0.0	0.2	0.1	0.3
462	Administrative & waste services	0.0	2.2	1.0	3.3
472	Educational svcs	3.0	0.1	1.3	4.4
475	Health & social services	0.0	0.0	5.5	5.5
488	Arts- entertainment & recreation	6.3	0.9	1.0	8.1
499	Accommodation & food services	27.4	1.0	2.8	31.1
504	Other services	0.0	0.7	2.5	3.1
520	Government & non NAICs	0.0	0.1	0.1	0.2
	Total	83.8	21.5	23.7	128.9



		Income			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$4,113	\$2,174	\$6,287
20	Mining	\$0	\$5,931	\$269	\$6,200
41	Utilities	\$0	\$16,715	\$11,628	\$28,343
52	Construction	\$1,326,937	\$34,156	\$16,166	\$1,377,259
65	Manufacturing	\$0	\$33,683	\$7,906	\$41,589
395	Wholesale Trade	\$0	\$67,942	\$34,450	\$102,392
396	Retail trade	\$92,342	\$125,906	\$128,714	\$346,962
408	Transportation & Warehousing	\$733,895	\$240,906	\$29,448	\$1,004,249
417	Information	\$0	\$25,088	\$21,430	\$46,518
433	Finance & insurance	\$0	\$45,790	\$72,372	\$118,162
440	Real estate & rental	\$0	\$29,019	\$19,061	\$48,080
447	Professional- scientific & tech svcs	\$0	\$140,091	\$61,032	\$201,123
461	Management of companies	\$0	\$21,324	\$6,739	\$28,062
462	Administrative & waste services	\$0	\$80,033	\$35,630	\$115,663
472	Educational svcs	\$64,799	\$2,413	\$49,342	\$116,554
475	Health & social services	\$0	\$25	\$307,862	\$307,887
488	Arts- entertainment & recreation	\$120,132	\$14,634	\$19,808	\$154,574
499	Accommodation & food services	\$623,640	\$24,021	\$64,024	\$711,685
504	Other services	\$0	\$33,745	\$87,485	\$121,231
520	Government & non NAICs	\$0	\$13,895	\$8,067	\$21,963
	Total	\$2,961,745	\$959,432	\$983,606	\$4,904,782

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$10,966	\$9,119	\$20,085
20	Mining	\$0	\$52,610	\$2,303	\$54,913
41	Utilities	\$0	\$114,090	\$80,108	\$194,199
52	Construction	\$3,208,243	\$82,839	\$40,929	\$3,332,011
65	Manufacturing	\$0	\$182,276	\$61,231	\$243,507
395	Wholesale Trade	\$0	\$221,925	\$112,528	\$334,453
396	Retail trade	\$186,355	\$291,083	\$315,839	\$793,277
408	Transportation & Warehousing	\$2,846,649	\$537,032	\$64,739	\$3,448,420
417	Information	\$0	\$126,511	\$125,778	\$252,289
433	Finance & insurance	\$0	\$161,584	\$295,709	\$457,293
440	Real estate & rental	\$0	\$344,496	\$664,599	\$1,009,095
447	Professional- scientific & tech svcs	\$0	\$279,358	\$124,750	\$404,108
461	Management of companies	\$0	\$48,865	\$15,442	\$64,307
462	Administrative & waste services	\$0	\$187,583	\$77,489	\$265,072
472	Educational svcs	\$108,999	\$4,133	\$83,422	\$196,554
475	Health & social services	\$0	\$49	\$550,460	\$550,510
488	Arts- entertainment & recreation	\$353,097	\$40,227	\$76,142	\$469,466
499	Accommodation & food services	\$1,626,751	\$54,018	\$173,724	\$1,854,493
504	Other services	\$0	\$64,000	\$140,477	\$204,477
520	Government & non NAICs	\$0	\$45,775	\$26,484	\$72,259
	Total	\$8,330,094	\$2,849,421	\$3,041,272	\$14,220,787







State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$1,262	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$289,806			
TOPI: Property Tax			\$433,805			
TOPI: Motor Vehicle Lic			\$8,154			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$23,432			
TOPI: S/L NonTaxes			\$905			
Corporate Profits Tax					\$15,112	
Personal Tax: Income Tax				\$96,374		
Personal Tax: NonTaxes (Fines- Fees				\$16,426		
Personal Tax: Motor Vehicle License				\$6,734		
Personal Tax: Property Taxes				\$3,512		
Personal Tax: Other Tax (Fish/Hunt)				\$5,284		
Total State/Local Tax	\$0	\$0	\$756,103	\$128,331	\$16,374	

Personal Tax: Income Tax Total Federal Tax	\$39,973	\$530,675	\$82,670	\$309,313 \$309,313	\$78,393
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Corporate Profits Tax					\$78,393
TOPI: Fed NonTaxes			\$2,761		
TOPI: Custom Duty			\$21,890		
TOPI: Excise Taxes			\$58,019		
Social Ins Tax- Employer Contr.		\$260,130			
Social Ins Tax- Employee Contr.	\$39,973	\$270,545			
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations



Shelburne Economic Impact

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Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	0.0	0.0	0.0	0.0
65	Manufacturing	0.0	0.0	0.0	0.0
395	Wholesale Trade	0.0	0.0	0.0	0.0
396	Retail trade	0.0	0.0	0.1	0.1
408	Transportation & Warehousing	0.8	0.2	0.0	1.1
417	Information	0.0	0.0	0.0	0.0
433	Finance & insurance	0.0	0.0	0.0	0.0
440	Real estate & rental	0.0	0.0	0.0	0.0
447	Professional- scientific & tech svcs	0.0	0.0	0.0	0.0
461	Management of companies	0.0	0.0	0.0	0.0
462	Administrative & waste services	0.0	0.1	0.0	0.1
472	Educational svcs	0.0	0.0	0.0	0.0
475	Health & social services	0.0	0.0	0.1	0.1
488	Arts- entertainment & recreation	0.0	0.0	0.0	0.0
499	Accommodation & food services	0.1	0.0	0.0	0.1
504	Other services	0.0	0.0	0.0	0.1
520	Government & non NAICs	0.0	0.0	0.0	0.0
	Total	0.9	0.4	0.4	1.7



	Income						
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	\$0	\$12	\$34	\$46		
20	Mining	\$0	\$42	\$4	\$47		
41	Utilities	\$0	\$208	\$184	\$392		
52	Construction	\$0	\$1,271	\$254	\$1,525		
65	Manufacturing	\$0	\$106	\$124	\$230		
395	Wholesale Trade	\$0	\$498	\$542	\$1,040		
396	Retail trade	\$240	\$200	\$2,022	\$2,462		
408	Transportation & Warehousing	\$38,272	\$12,438	\$462	\$51,172		
417	Information	\$0	\$243	\$337	\$580		
433	Finance & insurance	\$0	\$787	\$1,141	\$1,928		
440	Real estate & rental	\$0	\$318	\$301	\$618		
447	Professional- scientific & tech svcs	\$0	\$1,513	\$958	\$2,470		
461	Management of companies	\$0	\$386	\$106	\$492		
462	Administrative & waste services	\$0	\$2,000	\$559	\$2,559		
472	Educational svcs	\$0	\$11	\$765	\$776		
475	Health & social services	\$0	\$0	\$4,846	\$4,846		
488	Arts- entertainment & recreation	\$312	\$102	\$310	\$724		
499	Accommodation & food services	\$1,377	\$141	\$1,006	\$2,523		
504	Other services	\$0	\$605	\$1,377	\$1,982		
520	Government & non NAICs	\$0	\$485	\$127	\$612		
	Total	\$40,200	\$21,364	\$15,460	\$77,025		

	Output						
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	\$0	\$44	\$144	\$188		
20	Mining	\$0	\$161	\$36	\$197		
41	Utilities	\$0	\$1,334	\$1,265	\$2,598		
52	Construction	\$0	\$3,080	\$643	\$3,722		
65	Manufacturing	\$0	\$500	\$964	\$1,463		
395	Wholesale Trade	\$0	\$1,627	\$1,770	\$3,397		
396	Retail trade	\$484	\$454	\$4,963	\$5,900		
408	Transportation & Warehousing	\$117,023	\$26,605	\$1,016	\$144,643		
417	Information	\$0	\$1,289	\$1,982	\$3,271		
433	Finance & insurance	\$0	\$2,948	\$4,661	\$7,609		
440	Real estate & rental	\$0	\$3,794	\$10,429	\$14,223		
447	Professional- scientific & tech svcs	\$0	\$2,866	\$1,958	\$4,823		
461	Management of companies	\$0	\$884	\$243	\$1,127		
462	Administrative & waste services	\$0	\$4,710	\$1,215	\$5,924		
472	Educational svcs	\$0	\$20	\$1,294	\$1,314		
475	Health & social services	\$0	\$0	\$8,669	\$8,670		
488	Arts- entertainment & recreation	\$917	\$309	\$1,193	\$2,419		
499	Accommodation & food services	\$3,710	\$357	\$2,730	\$6,797		
504	Other services	\$0	\$1,131	\$2,211	\$3,341		
520	Government & non NAICs	\$0	\$1,597	\$418	\$2,015		
	Total	\$122,132	\$53,710	\$47,802	\$223,644		





State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$26	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$2,363			
TOPI: Property Tax			\$3,538			
TOPI: Motor Vehicle Lic			\$66			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$191			
TOPI: S/L NonTaxes			\$7			
Corporate Profits Tax					\$309	
Personal Tax: Income Tax				\$1,500		
Personal Tax: NonTaxes (Fines- Fees				\$256		
Personal Tax: Motor Vehicle License				\$105		
Personal Tax: Property Taxes				\$55		
Personal Tax: Other Tax (Fish/Hunt)				\$82		
Total State/Local Tax	\$0	\$0	\$6,166	\$1,997	\$334	

Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$317	\$4,720			
Social Ins Tax- Employer Contr.		\$4,539			
TOPI: Excise Taxes			\$473		
TOPI: Custom Duty			\$179		
TOPI: Fed NonTaxes			\$23		
Corporate Profits Tax					\$1,601
Personal Tax: Income Tax				\$4,814	
Total Federal Tax	\$317	\$9,259	\$674	\$4,814	\$1,601



Warren-Sugarbush Economic Impact

Emp	loyment	
	Direct	

Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
20	Mining	0.0	0.0	0.0	0.0
41	Utilities	0.0	0.0	0.0	0.0
52	Construction	0.0	0.2	0.0	0.2
65	Manufacturing	0.0	0.0	0.0	0.0
395	Wholesale Trade	0.0	0.1	0.1	0.1
396	Retail trade	0.1	0.0	0.4	0.5
408	Transportation & Warehousing	5.6	1.6	0.1	7.3
417	Information	0.0	0.0	0.0	0.1
433	Finance & insurance	0.0	0.1	0.1	0.2
440	Real estate & rental	0.0	0.1	0.1	0.2
447	Professional- scientific & tech svcs	0.0	0.2	0.1	0.3
461	Management of companies	0.0	0.0	0.0	0.0
462	Administrative & waste services	0.0	0.4	0.1	0.5
472	Educational svcs	0.0	0.0	0.1	0.1
475	Health & social services	0.0	0.0	0.6	0.6
488	Arts- entertainment & recreation	0.2	0.0	0.1	0.3
499	Accommodation & food services	0.6	0.0	0.3	0.9
504	Other services	0.0	0.1	0.3	0.4
520	Government & non NAICs	0.0	0.0	0.0	0.0
	Total	6.4	3.0	2.6	11.9



Income						
Sector	Description	Direct	Indirect	Induced	Total	
1	Ag, Forestry, Fish & Hunting	\$0	\$84	\$235	\$319	
20	Mining	\$0	\$287	\$29	\$316	
41	Utilities	\$0	\$1,461	\$1,261	\$2,721	
52	Construction	\$0	\$8,665	\$1,744	\$10,409	
65	Manufacturing	\$0	\$739	\$854	\$1,594	
395	Wholesale Trade	\$0	\$3,423	\$3,722	\$7,145	
396	Retail trade	\$2,205	\$1,385	\$13,891	\$17,481	
408	Transportation & Warehousing	\$259,314	\$84,242	\$3,173	\$346,730	
417	Information	\$0	\$1,705	\$2,318	\$4,022	
433	Finance & insurance	\$0	\$5,423	\$7,835	\$13,258	
440	Real estate & rental	\$0	\$2,204	\$2,065	\$4,269	
447	Professional- scientific & tech svcs	\$0	\$10,511	\$6,578	\$17,089	
461	Management of companies	\$0	\$2,668	\$728	\$3,396	
462	Administrative & waste services	\$0	\$13,688	\$3,839	\$17,527	
472	Educational svcs	\$0	\$80	\$5,257	\$5,336	
475	Health & social services	\$0	\$1	\$33,284	\$33,285	
488	Arts- entertainment & recreation	\$2,869	\$759	\$2,131	\$5,759	
499	Accommodation & food services	\$12,666	\$1,005	\$6,911	\$20,581	
504	Other services	\$0	\$4,155	\$9,455	\$13,610	
520	Government & non NAICs	\$0	\$3,290	\$874	\$4,165	
	Total	\$277,054	\$145,775	\$106,183	\$529,012	

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$312	\$987	\$1,299
20	Mining	\$0	\$1,096	\$248	\$1,344
41	Utilities	\$0	\$9,374	\$8,686	\$18,060
52	Construction	\$0	\$20,992	\$4,414	\$25,407
65	Manufacturing	\$0	\$3,543	\$6,618	\$10,161
395	Wholesale Trade	\$0	\$11,182	\$12,157	\$23,339
396	Retail trade	\$4,450	\$3,151	\$34,085	\$41,687
408	Transportation & Warehousing	\$792,541	\$180,165	\$6,975	\$979,681
417	Information	\$0	\$9,021	\$13,612	\$22,633
433	Finance & insurance	\$0	\$20,317	\$32,011	\$52,328
440	Real estate & rental	\$0	\$26,456	\$71,624	\$98,081
447	Professional- scientific & tech svcs	\$0	\$19,945	\$13,445	\$33,389
461	Management of companies	\$0	\$6,113	\$1,668	\$7,781
462	Administrative & waste services	\$0	\$32,220	\$8,344	\$40,564
472	Educational svcs	\$0	\$141	\$8,891	\$9,031
475	Health & social services	\$0	\$2	\$59,541	\$59,544
488	Arts- entertainment & recreation	\$8,432	\$2,284	\$8,197	\$18,913
499	Accommodation & food services	\$34,127	\$2,541	\$18,752	\$55,420
504	Other services	\$0	\$7,768	\$15,183	\$22,951
520	Government & non NAICs	\$0	\$10,845	\$2,870	\$13,716
	Total	\$839,550	\$367,469	\$328,308	\$1,535,327





State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$177	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$16,724			
TOPI: Property Tax			\$25,034			
TOPI: Motor Vehicle Lic			\$471			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$1,352			
TOPI: S/L NonTaxes			\$52			
Corporate Profits Tax					\$2,122	
Personal Tax: Income Tax				\$10,301		
Personal Tax: NonTaxes (Fines- Fees				\$1,756		
Personal Tax: Motor Vehicle License				\$720		
Personal Tax: Property Taxes				\$375		
Personal Tax: Other Tax (Fish/Hunt)				\$565		
Total State/Local Tax	\$0	\$0	\$43,633	\$13,716	\$2,300	

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Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$2,176	\$32,419			
Social Ins Tax- Employer Contr.		\$31,171			
TOPI: Excise Taxes			\$3,348		
TOPI: Custom Duty			\$1,263		
TOPI: Fed NonTaxes			\$159		
Corporate Profits Tax					\$11,010
Personal Tax: Income Tax				\$33,060	
Total Federal Tax	\$2,176	\$63,589	\$4,771	\$33,060	\$11,010



William H. Morse State Economic Impact

Employment							
Sector	Description	Direct	Indirect	Induced	Total		
1	Ag, Forestry, Fish & Hunting	0.0	0.1	0.1	0.1		
20	Mining	0.0	0.0	0.0	0.0		
41	Utilities	0.0	0.0	0.0	0.1		
52	Construction	5.3	0.3	0.2	5.8		
65	Manufacturing	2.0	0.2	0.1	2.2		
395	Wholesale Trade	0.0	0.3	0.3	0.6		
396	Retail trade	0.2	0.8	2.0	3.0		
408	Transportation & Warehousing	7.2	2.7	0.3	10.2		
417	Information	0.0	0.3	0.2	0.5		
433	Finance & insurance	0.0	0.5	0.6	1.1		
440	Real estate & rental	0.0	0.7	0.6	1.3		
447	Professional- scientific & tech svcs	15.0	2.1	0.6	17.6		
461	Management of companies	0.0	0.2	0.0	0.2		
462	Administrative & waste services	0.0	1.6	0.5	2.2		
472	Educational svcs	0.0	0.0	0.7	0.7		
475	Health & social services	0.0	0.0	2.9	2.9		
488	Arts- entertainment & recreation	0.3	0.3	0.5	1.1		
499	Accommodation & food services	1.1	0.7	1.5	3.2		
504	Other services	0.0	0.3	1.3	1.6		
520	Government & non NAICs	0.0	0.1	0.0	0.1		
	Total	31.0	11.0	12.4	54.4		



	Income							
Sector	Description	Direct	Indirect	Induced	Total			
1	Ag, Forestry, Fish & Hunting	\$0	\$836	\$1,137	\$1,973			
20	Mining	\$0	\$1,486	\$141	\$1,627			
41	Utilities	\$0	\$5,098	\$6,077	\$11,175			
52	Construction	\$257,022	\$15,470	\$8,467	\$280,959			
65	Manufacturing	\$100,554	\$9,200	\$4,138	\$113,891			
395	Wholesale Trade	\$0	\$20,121	\$18,031	\$38,153			
396	Retail trade	\$4,314	\$25,664	\$67,400	\$97,378			
408	Transportation & Warehousing	\$332,071	\$140,672	\$15,430	\$488,174			
417	Information	\$0	\$17,375	\$11,211	\$28,586			
433	Finance & insurance	\$0	\$33,350	\$37,847	\$71,197			
440	Real estate & rental	\$0	\$12,115	\$9,965	\$22,080			
447	Professional- scientific & tech svcs	\$812,311	\$115,369	\$31,976	\$959,656			
461	Management of companies	\$0	\$15,885	\$3,527	\$19,412			
462	Administrative & waste services	\$0	\$63,753	\$18,669	\$82,422			
472	Educational svcs	\$0	\$266	\$25,976	\$26,242			
475	Health & social services	\$0	\$6	\$161,087	\$161,093			
488	Arts- entertainment & recreation	\$5,613	\$4,920	\$10,386	\$20,918			
499	Accommodation & food services	\$24,781	\$15,750	\$33,523	\$74,054			
504	Other services	\$0	\$13,865	\$45,783	\$59,648			
520	Government & non NAICs	\$0	\$6,116	\$4,217	\$10,333			
	Total	\$1,536,665	\$517,316	\$514,989	\$2,568,970			

		Output			
Sector	Description	Direct	Indirect	Induced	Total
1	Ag, Forestry, Fish & Hunting	\$0	\$2,146	\$4,770	\$6,916
20	Mining	\$0	\$11,635	\$1,206	\$12,842
41	Utilities	\$0	\$34,235	\$41,864	\$76,099
52	Construction	\$621,423	\$37,523	\$21,437	\$680,384
65	Manufacturing	\$481,996	\$45,008	\$32,044	\$559,047
395	Wholesale Trade	\$0	\$65,724	\$58,898	\$124,622
396	Retail trade	\$8,707	\$59,186	\$165,385	\$233,278
408	Transportation & Warehousing	\$1,014,020	\$294,267	\$33,923	\$1,342,210
417	Information	\$0	\$91,905	\$65,785	\$157,690
433	Finance & insurance	\$0	\$111,656	\$154,647	\$266,302
440	Real estate & rental	\$0	\$166,570	\$348,211	\$514,781
447	Professional- scientific & tech svcs	\$1,514,617	\$218,048	\$65,362	\$1,798,027
461	Management of companies	\$0	\$36,401	\$8,083	\$44,484
462	Administrative & waste services	\$0	\$141,597	\$40,615	\$182,212
472	Educational svcs	\$0	\$465	\$43,911	\$44,377
475	Health & social services	\$0	\$12	\$287,967	\$287,979
488	Arts- entertainment & recreation	\$16,497	\$15,425	\$39,912	\$71,834
499	Accommodation & food services	\$66,771	\$37,079	\$90,961	\$194,811
504	Other services	\$0	\$26,327	\$73,513	\$99,840
520	Government & non NAICs	\$0	\$20,129	\$13,843	\$33,972
	Total	\$3,724,031	\$1,415,337	\$1,592,338	\$6,731,706





State and Local Tax Impact						
Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations	
Dividends					\$546	
Social Ins Tax- Employee Contr.	\$0	\$0				
Social Ins Tax- Employer Contr.		\$0				
TOPI: Sales Tax			\$68,632			
TOPI: Property Tax			\$102,734			
TOPI: Motor Vehicle Lic			\$1,931			
TOPI: Severance Tax			\$0			
TOPI: Other Taxes			\$5,549			
TOPI: S/L NonTaxes			\$214			
Corporate Profits Tax					\$6,532	
Personal Tax: Income Tax				\$50,668		
Personal Tax: NonTaxes (Fines- Fees				\$8,636		
Personal Tax: Motor Vehicle License				\$3,541		
Personal Tax: Property Taxes				\$1,846		
Personal Tax: Other Tax (Fish/Hunt)				\$2,778		
Total State/Local Tax	\$0	\$0	\$179,061	\$67,469	\$7,078	

Description	Proprietor Income	Employee Compensation	Tax On Production And Imports	Households	Corporations
Social Ins Tax- Employee Contr.	\$25,268	\$135,134			
Social Ins Tax- Employer Contr.		\$129,932			
TOPI: Excise Taxes			\$13,740		
TOPI: Custom Duty			\$5,184		
TOPI: Fed NonTaxes			\$654		
Corporate Profits Tax					\$33,888
Personal Tax: Income Tax				\$162,619	
Total Federal Tax	\$25,268	\$265,065	\$19,578	\$162,619	\$33,888



VERMONT AIRPORT ECONOMIC IMPACT ASSESSMENT

AUGUST 2021

PREPARED FOR:

PREPARED BY:



