

3. DEFINITION OF ECONOMIC IMPACT

What are Economic Impacts?

Total economic impact is calculated by adding together the *primary impact* and *spin-off impact* in order to measure the total contribution that public-use airports make to Vermont's economy. As shown in Exhibit 3, the *total economic impact* includes the dollars and jobs that are associated with aviation activities, aviation-supporting and aviation-dependent activities (the primary impact) in the Green Mountain State, as well as their "spin-off" effects.

Exhibit 3

Examples of Activities with Economic Impact, by Classification of Impact

Primary Economic Impacts		Spin-Off Economic Impacts
On-Airport Airport Management Airlines FAA Airport Maintenance Retail, Food/Beverage Vendors Car Rental Airport Taxi Service Ground Transport Fixed-Base Operators Aircraft Maintenance Aircraft Sales, Rental, Charter Hangar, Tie-down Parking Flight Instruction	Off-Airport <i>Businesses Serving Air Visitors</i> Hotels Restaurants Retail Travel Agents Convention Center Tourist Destinations <i>Airport-Dependent Business (use aviation services)</i> Freight Forwarders Manufacturing Business Needing Personnel Transport	<i>Suppliers</i> of materials and services to airports, airport-dependent businesses, and businesses that serve air visitors <i>Employees</i> spend their income on consumer products and services

Following is a brief overview of these economic impact categories. For further discussion on primary, spin-off, and total economic impacts, please see Chapter 5: Economic Modeling.

The *primary impact* represents a 'first round' of economic stimulus, and is business activity that directly uses or requires the airport. This primary impact includes both on-airport and off-airport business activity.

- The *on-airport primary impact* represents the activity of businesses and government located on airport property. Examples are the airport

itself (some of which collect fees for use), airlines, and fixed-based operators (FBO's). FBO's are businesses that provide aircraft fueling and often maintenance services; some offer a variety of other services such as flight instruction and sightseeing tours. Other on-airport activity includes food/beverage and retail establishments, and government agencies such as the FAA, Transportation Security Association (TSA) and branches of the military.

- The *off-airport primary impact* represents business activity that occurs off of airport property, but that depends on airports and aviation. Some businesses rely on income from the expenditures of visitors brought to Vermont by the air transport network, such as hotels and restaurants. Other businesses depend on airports as direct users of transport services. For example, many manufacturing firms require air transport of cargo to ship in capital equipment, replacement parts, and supplies, and to ship out finished goods. Other firms require transport of employees or customers.

To recapitulate, the primary economic impact is public sector and commercial activity that relies directly on airports. Most obvious are the activities of businesses and government agencies located on airport property. However, many off-airport businesses also depend partially or wholly on airports. Some establishments serve the visitors that airports bring, and other firms require the transport services that airports provide. Because all of this activity *depends directly on airports*, it belongs to the airport system's primary economic impact.

The *spin-off impact* is the respending of the dollars generated by the primary impact. When the aviation, aviation-supporting and aviation-dependent businesses described above receive revenues, those dollars recirculate in the local economy. The businesses buy products and services from other industries. A large portion of their revenues goes into the pockets of their employees, who spend money at local grocery stores, shops, movie theaters, and pay their rents or mortgages. The businesses that receive these dollars spend them again, etc. These additional rounds of spending create the spin-off impact (sometimes referred to as a "multiplier effect").

Spin-off impacts are frequently as large or larger than the primary impacts. Calculating spin-off impacts is a complex process; the tendency of dollars to recirculate differs from region to region within the State. For this reason, computer modeling was used to calculate spin-off impacts for each county within Vermont, and for the State as a whole.

The ***total impact*** is the sum of the primary and spin-off impacts and represents a comprehensive accounting of the full economic stimulus that Vermont public-use airports represent to their communities and to the State.

There are four important benefits to this classification system:

- It is comprehensive and inclusive,
- It avoids the usual jargon of “direct” and “indirect” effects, which tend to be confusing (though the report has provided the functional equivalents for the aforementioned terms),
- It recognizes interdependencies, which are needed to avoid double-counting of total impacts, and
- It provides a basis for assessing how emerging economic changes (including international trade and computer technologies) will increase the role and importance of aviation even more in the future.

This type of classification is fully consistent with REMI and IMPLAN, the economic impact models employed in the analysis, and provides a way to communicate results most effectively.

VTrans, airport managers, and other relevant State agencies worked to identify airport tenants and other businesses depend upon the operation of local airports. It was critical to define all the impacts accurately and to identify the sources in order to ensure reliable impact estimates. A detailed discussion of the Study's data collection efforts is presented in Chapter 4.

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