

Appendix C

AIRPORT ECONOMIC IMPACT

Introduction

Airports, by their nature, can be viewed as an economic asset to the community they serve. They offer employment to area residents and enhance business opportunities for entities engaged in aviation-oriented activities, such as maintenance and repair of aircraft, fuel sales, flight training, and air charter services. A community's airport serves as a portal for access to the national air transportation system, providing support for personal and business travel, both to local residents and visitors. Airport businesses can also serve the community by providing a convenient location to receive and send shipments of goods. In sum, airports serve as gateways for economic activity, providing a stimulus for business enterprises and generating employment opportunities for area residents.

By documenting the economic benefit and contributions of an airport, the local community can better understand the airport's importance, role, and need for continued operation. For some, an airport is viewed as a recreational facility that is used by relatively few persons. However, a broader perspective is more appropriate since airports provide services that affect all citizens of a community, either directly or indirectly. Airports serve as a public transportation facility, as well as attract commerce. In summary, an airport enables such activities as:

- Logistic support for equipment, supplies, and personnel
- Emergency disaster response support and critical medical transportation
- Shipment of time-sensitive items
- Pilot training and aircraft rentals
- Aircraft maintenance and storage
- Access to the national air transportation system

The importance of air transportation and small general aviation airports, particularly in rural communities, should be considered a vital asset and a positive feature for economic development initiatives. Although limited in volume, the ability to make just-in-time deliveries and to dispatch sales and customer service staff to locations not served by commercial air service transportation makes the smaller general aviation airports even more important to the community and are increasingly viewed as a critical business advantage. Danielson Airport provides support for all of the above purposes, and additionally generates a positive economic impact in terms of employment and purchases of goods and services from local businesses. In general, the local community served by Danielson Airport includes Windham County (along the Interstate 395 corridor), as reflected by the geographic distribution of the based aircraft owners and airport users.

Methodology

The generally accepted methodology for determining the economic impact of an airport includes the measurement of three types of activity: direct, indirect, and induced. The combination of the three measures equates into the airport's total economic impact or "benefit."

Direct economic impacts are defined as the employment and revenues generated by businesses located at an airport (i.e., those which are dependent on access to the facility). The expenditures by these businesses for local goods, services, and capital improvements are also included considered direct economic impacts.

Indirect economic impacts include the jobs and revenues generated by off-airport businesses located in the community, attributable to their relationship, support, or use of the airport. This includes any sector of the local economy that serves users of the airport, or that uses the airport to transport goods, supplies, or personnel in order to enhance business opportunities and activities. Like on-airport businesses, these enterprises employ staff, purchase locally produced goods and services, and invest in capital projects. Businesses in this category have activity associated with the airport or aviation, and can include hotels, restaurants, manufacturers, shippers, and retail stores. When assessing economic impact values, distinction is made between those generated as a result of the airport (direct) and those serving other segments of the local economy (indirect).

Induced economic impacts are those generated in a community caused by the recycling of spending from both the direct and indirect economic impacts. Airport businesses, users, employees, and the airport itself are, in essence, consumers whose expenditures support other businesses and employment in the community. Studies have indicated that a dollar spent in a region will create at least another dollar of income in that region. This activity is commonly referred to as the "multiplier effect." Thus, the induced economic impact of any activity is at least equal to the sum of the direct and indirect impacts, in terms of dollars.

Finally, the total economic impact is defined as the sum of the direct, indirect and induced impacts. For example, if an airport generates \$60 in direct impact, \$40 in indirect impact, and has a 2.0 multiplier to account for the induced impact, then the total economic impact would be \$200 (i.e., $(\$60 + \$40) * 2.0 = \$200$).

As an airport's business activity level changes over time, the total economic impact will similarly change. Continued improvement of an airport may serve to attract more activity and result in an increased economic impact value to the communities served.

Airport User Survey

As previously discussed in Appendix A, *Airport User & Transient Pilot Questionnaires*, a questionnaire was distributed to approximately 145 Danielson Airport users, including based aircraft owners, the airport businesses, and area pilots. The survey included questions regarding

the estimated annual value of goods and services purchased at the Airport. There were 37 responses to the survey (25% response rate). The aggregated results from specific questions related to economic activity are presented in Table C-1.

TABLE C-1 – DANIELSON AIRPORT USER SURVEY		
Item	Aggregate Total	Average (37)
Fuel	\$49,800	\$1,346
Maintenance	\$34,600	\$935
Hangar/Tiedown	\$12,900	\$349
Aircraft Rental	\$44,200	\$1,195
Flight Training	\$23,200	\$627
Pilot Supplies	\$1,600	\$43
Total	\$166,300	\$4,495
Source: Danielson Airport User Survey, 2006		

The results of the airport user survey indicate that on average, respondents annually spent about \$4,500 on airport services. Fuel sales and aircraft rentals were the top two items specified by the users. Assuming that 80 percent of the 145 users spend \$4,500 annually, it can be estimated that Danielson Airport generates over \$522,000 in annual purchases of goods and services. Considering the busy flight instruction and skydiving businesses at the Airport, this provides a reasonable estimation for an airport of this size and character.

Airport Business Tenant Survey

A detailed economic survey of the three business-oriented tenants at Danielson Airport was also conducted. This survey requested information concerning expenditures for full and part-time employment, salaries and wages, purchases of local (off-airport) goods and services, and capital investments to support their operations in calendar year 2006. While the individual survey results are to be kept confidential, aggregate totals were identified to assess the direct economic impact of these entities, as described below.

Employment

The respondents indicated that there are 13 full-time and 10 part-time employees at Danielson Airport with a total annual payroll of \$144,000. Assuming that 2.5 part-time employees equal one full-time employee, a total of 17 jobs are generated by the Airport. Using the survey results, this assumption leads to approximately \$8,500 per full-time employee and \$3,400 per part-time employee. Applying a figure of \$20,000 (based roughly on the 2004 per capita income) to the 17

equivalent full-time employees yields a total estimated income of \$340,000.¹ This factor is also assumed to include payments by the Connecticut Department of Transportation (owner of Danielson Airport) for annual maintenance services by local contractors, as well as other payroll costs that were unaccounted for by the survey.

Local Goods & Services

Airport businesses reported that a total of \$338,000 was spent on local good and services in 2006 and that they expect \$357,500 in expenses in 2007. These consist of business purchases by the airport tenants.

Economic Impact Analysis

Direct Impacts

Direct impacts are the sum of economic activity by airport users, the salaries and wages paid to full-time and part-time employees by the airport tenants, and their expenditures for local goods and services along with capital investments. Using the data from the surveys of airport users and business tenants, the calculated direct economic impact totaled \$1.2 million in 2006.

Indirect Impacts

Indirect impacts were derived from the estimated number of itinerant aircraft arrivals made by visiting (i.e., transient) aircraft. Using one-half of the interpolated 6,340 itinerant operations for 2006 (from the activity forecasts in Chapter 2), there were 3,170 annual itinerant arrivals. Assuming that only 25 percent of those operations were conducted by visitors (as opposed to based tenants), there would have been approximately 800 visiting itinerant arrivals. Light single and twin-engine propeller-driven aircraft account for almost all of the itinerant operations and carry an average of two persons, including the pilot. Using the assumption that each visitor, including the pilot, spent \$25 daily off-airport while in the local area (for two consecutive days), the associated total indirect expenditure was limited, amounting to only \$80,000 annual indirect impact in 2006.

It should be noted that additional indirect economic impacts are generated from off-airport businesses that occasionally use the Airport for the shipment of goods and transportation of personnel. However, this portion of the indirect benefit was not quantified.

Induced Impacts

The multiplier effect or the induced economic impact for Danielson Airport was assumed to equal the sum of the direct and indirect impacts. Using this assumption, the induced economic impact of the Airport is \$1,280,000 in 2006.

¹ The per capita income was \$19,779 and the median household income was \$41,087 (US Census Data, 2004),

Total Economic Impact

For year 2006, the total annual estimated economic impact of the Danielson Airport based on the survey responses and aforementioned assumptions is presented in Table C-2.

TABLE C-2 – DANIELSON AIRPORT ECONOMIC IMPACT	
Item	Aggregate Total
Direct Impact	\$1,200,000
Indirect Impact	\$80,000
Induced Impact	\$1,280,000
Total	\$2,560,000
Source: Danielson Airport User Survey, 2006	

Other Direct Community Benefits

The Town of Killingly directly collects a small amount of revenue from the Danielson Airport in the form of property taxes and aircraft registration fees. Table C-3 presents the direct revenues the Town collected from the presence of the Airport within its jurisdictional boundaries for 2004, 2005, and 2006.

TABLE C-3 – AIRPORT TAX & REGISTRATION REVENUES			
Item	2004	2005	2006
Property Tax	\$242	\$270	\$112
Aircraft Registration Fees	\$4,980	\$5,000	\$3,920
Total	\$5,222	\$5,270	\$4,032
Source: Town of Killingly, CT			

Non-Economic Benefits

It should be noted that Danielson Airport also provides many non-economic benefits, such as emergency transportation access for medical and emergency response personnel and equipment, pilot training, and the community's access to the national air transportation system. Users of the Airport can include recreational flyers, corporate flyers, charters, and military, public safety, and government operators.

In fact, Danielson Airport provides a base and command center for the Danielson Squadron of the Civil Air Patrol (CAP), an all volunteer organization with approximately 30 active members.

The CAP's function is to provide emergency services to State and Federal agencies and other private organizations. The CAP also provides aerospace education and cadet programs.

Danielson Airport also provides invaluable recreational opportunities for both the flying and non-flying public. The Airport is home to a glider club, skydiving business, and flight instruction school, as well as several locally-owned recreational aircraft. One of the large fields (away from the airfield) is used by a local soccer club as an occasional practice facility. These types of recreational opportunities, and the Danielson Squadron of the CAP, should be viewed equally, if not greater to, the quantitative analysis of the Airport's economic impact.

Summary

Airports the size and character of Danielson do not generally provide the substantial economic impact generated by the larger general aviation and commercial services airports. However, as the community's link to the national air transportation system and a source of invaluable recreational opportunities, the Airport should continue to be viewed as a valuable asset for providing an aviation gateway for both local residents and visitors to the region. As a base for two successful businesses with several full-time and part-time employees, Danielson Airport not only sustains businesses, it is also an attractor of economic activity, generating an annual economic impact of approximately \$2.5 million. These are among the many intangible benefits of supporting an airport facility to serve the air transportation needs, in addition to the existing and potential economic vitality, of the community.