

# **Port of Port Angeles**

# 2006 Economic Impact Study FINAL REPORT

PREPARED FOR

**Port of Port Angeles** 

PREPARED BY

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# **Executive Summary**

### **Summary of Impacts**

The Port of Port Angeles (which owns two airports, two marinas, a marine terminal and commercial and industrial properties) retained BST Associates to estimate the economic impact generated in calendar year 2006 by the Port and its tenants operating on Port of Port Angeles property. The purpose of this study is to document how investments by the Port make an impact in the local community in Clallam County.

#### Direct Business Revenue

The Port and its tenants generate extensive economic activity in Clallam County and throughout Washington State. As shown in Figure 1, the Port and its tenants generated approximately \$190 million in direct business revenue in 2006 (i.e., sales of goods and services). The Port and its tenants at commercial and industrial properties owned by the Port of Port Angeles generated \$78 million in revenue, followed by \$71 million at the Marine Terminal, \$27 million at the Marinas, \$12 million at the Airports and \$2 million in capital improvements.

\$77,883,000
\$2,000,000
\$11,626,000
\$11,626,000
\$27,451,000
\$70,593,000

Figure 1 – Direct Business Revenues from the Port of Port Angeles & Tenants

#### Income

The Port and its tenants generated direct income at Port facilities of \$53 million in 2006 (i.e., wages and salaries for employees). These jobs were relatively high paying, averaging \$31,000 (over \$15 per hour). The average wage at the Port is 3.3% higher than the county-wide average. Jobs at the Marine Terminal averaged nearly 17% above the countywide average.

Including direct, indirect and induced impacts, the Port and its tenants generated \$90 million in income in Clallam County and \$100 million in Washington State in 2006 as result of its own and its tenant's activity.

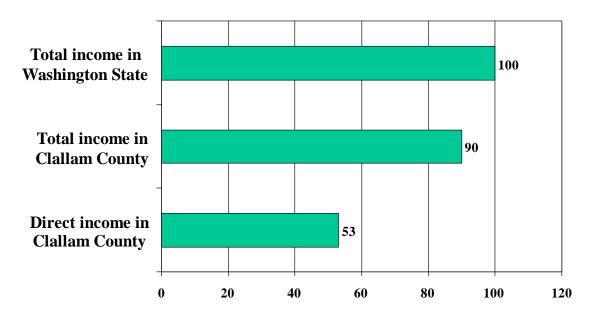


Figure 2 - Income Generated by the Port of Port Angeles and its Tenants in 2006 (\$Mil)

#### **Employment**

As shown in Figure 3, the Port of Port Angeles generated an estimated 1,701 direct jobs in 2006 as a result of its own and its tenant's activity. Including direct, indirect and induced impacts, the Port and its tenants generated 3,503 jobs in Clallam County and 4,035 jobs in Washington State in 2006.

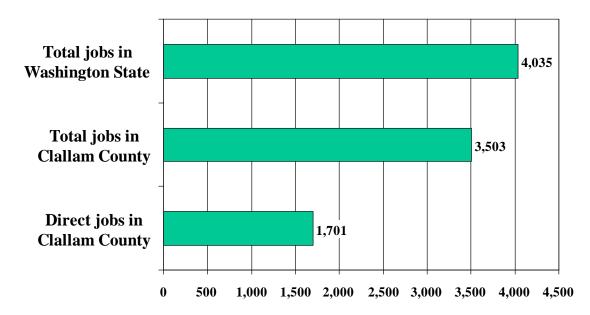


Figure 3 – Jobs Generated by the Port of Port Angeles and its Tenants in 2004

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The Port of Port Angeles and its tenants generated the following number of direct jobs in 2006 by line of business or activity center:

- Airports (including William R Fairchild International Airport and Sekiu General Aviation Airport) generated 121 jobs,
- Marinas (including Port Angeles Boat Haven, John Wayne Marina, the Boat Yard and the Boat Ramp) generated 204 jobs,
  - Marine Terminal (including cargo operations, the Port Fill Dump, topside repair operations, and boat building/repair) generated 636 jobs,
- Properties (including rental properties at the Port's industrial parks) generated 72 jobs and.
- Capital improvements generated approximately 20 jobs.

In addition to the direct jobs generated by the Port and its tenants, there are also related jobs, that is jobs created indirectly by activities of the Port. This includes jobs created at the Carlsborg Industrial Park (which was developed by the Port in years 1985 through 1995 and then sold to private firms) and jobs assisted by industrial revenue bonds flowing through the Port such as issuance of \$40 million of non-recourse revenue bonds on behalf of Daishowa America (now owned by Nippon Paper Industries USA). There were approximately 308 of these related jobs.

Including all Port jobs, the Port of Port Angeles accounted for approximately 16% of the total covered jobs<sup>1</sup> in Clallam County. This result is higher than the combined results of economic impact studies for the ports of Seattle, Tacoma, Vancouver and Olympia (e.g., these ports accounted for 14.8% of covered employment in their combined jurisdictions).

#### **Taxes**

According to the Tax Foundation, Washington State residents paid approximately 10.9% of their personal income in state and local taxes. Applying this tax rate to total income<sup>2</sup> implies that the Port and its tenants generated state and local taxes of \$10.9 million in 2006.

In 2006 the Port collected \$1,185,698 in property taxes and \$73,906.26 in other taxes. Therefore, for every tax dollar collected by the Port, \$150 was generated in direct and indirect income by the Port and its private industry partners.

In terms of jobs created, for every \$360 collected in taxes by the Port, one job in Clallam County was created by the Port and its private industry partners. This result is slightly better than the combined results of economic impact studies for the ports of Seattle, Tacoma, Vancouver and Olympia (e.g., these ports generated one job per \$373 in taxes).

#### Financial Position

The Port carries assets with a book value (original cost less depreciation) of \$40 million at the end of 2006. Taxpayers have contributed approximately \$8 million of net assets to that total; the remaining \$32 million of net assets has been generated through Port operations.

<sup>&</sup>lt;sup>1</sup> Covered jobs are jobs covered by the State of Washington Employment Security Department.

<sup>&</sup>lt;sup>2</sup> Including direct, indirect and induced effects.

# **Technical Report**

The Port of Port Angeles retained BST Associates to estimate the economic impact generated by the Port and its tenants operating at the airports, marinas, marine terminal, and properties during calendar year 2006.

This chapter provides a summary of the methodology and results of the Port of Port Angeles Economic Impact Study.

#### Methodology

The flow of economic activities is described in Figure 4. Economic activity generated by the Port and its tenants creates business revenues, which in turn, creates spending on payrolls for people working directly for the firm, retained earnings/dividends/investments and local purchases of supplies, materials, and outside labor. The local purchases by firms create indirect jobs. Payroll for direct employees creates additional expenditures, which creates induced jobs. Finally, income associated with direct, indirect and induced activity generates state and local taxes.

Activity by the Port & Port Tenants

Business Revenue

Retained
earnings,
Dividends,
Investments

Direct Jobs

Re-spending

Induced Jobs

Taxes

**Figure 4 – Flow of Impacts** 

The process for estimating economic impacts included a survey/interview process and review of secondary data to identify direct impacts and used the IMPLAN model for Clallam County and Washington State to estimate total impacts.

#### Survey Process

The initial step of the economic impact study was to document the direct impacts of the Port of Port Angeles by line of business.

With significant assistance from Port staff, tenants and users of each of the Port's lines of businesses were identified and contacted. Surveys were mailed to 803 individuals and businesses. With 204 surveys returned, the overall mail survey had a response rate of 25%. One of the reasons for the high participation rate was the promise of strict confidentiality. The surveys were returned to BST Associates with a promise that no individual results would be divulged without the respondent's direct permission and that results would be presented in an aggregate form.

**Table 1 – Summary Response to Mailed Surveys** 

Category	Sent	Received	% Received
Airport hangar tenants	84	23	27.4%
Airport businesses	18	7	38.9%
Marina moorage tenants	602	132	21.9%
Marina businesses	26	12	46.2%
Marine Terminal users/tenants	42	19	45.2%
Property tenants	31	11	35.5%
Total	803	204	25.4%

Source: Port of Port Angeles, BST Associates

In addition, BST Associates contacted 35 firms in-person to further understand their economic activities at the Port of Port Angeles.

BST Associates also utilized port records (expenditures by line of business, capital budgets and other available records) as well as data from Dun & Bradstreet, the Washington State Department of Revenue and the Washington State Employment Security Department in order to further identify the direct impacts from construction and operations, including:

- Revenue/sales,
- Payroll/Income,
- Employment, and
- Taxes.

#### **Estimation of Total Impacts**

Based upon the direct impacts, BST Associates estimated the indirect and induced impacts using the IMPLAN model<sup>3</sup>, which estimates the multiplier effects of inter-industry purchases. Indirect impacts refer to expenditures by the user/tenant on outside goods and services. Induced impacts refer to purchases based on the employment earnings from direct and indirect economic activities. As wages are paid out, workers' families spend their income on a wide array of goods and services, much of which are supplied by the local economy.

Total impacts incorporate the sum of direct, indirect, and induced impacts. It is important to note that these effects are limited for any region because of spending "leakages" at each round of inter-industry and household purchases. That is, the goods and services required at each stage

<sup>&</sup>lt;sup>3</sup> Please see appendix for additional information on the Implan model.

are partly purchased from outside the study area, thus reducing the total supplies provided locally. The IMPLAN model is designed to calculate the multiplier effects of the designated regions: Clallam County, and Washington State.

#### **Findings**

This section summarizes the findings of the economic impact study.

#### Airport

As a vital part of Clallam County's development, aviation connects the Olympic Peninsula to the rest of the world, providing an efficient and important alternative to ground transportation. The Port of Port Angeles owns and operates two airports in Clallam County: William R. Fairchild International Airport in Port Angeles, and Sekiu Airport in the Sekiu/Clallam Bay area on the west end of the Olympic Peninsula.

Fairchild International serves both private and commercial aircraft, providing passenger and cargo transportation, emergency services, disaster response and recreational activities. The airport has over 800 acres of property, with 690 in aeronautical use (110 acres is an industrial park). Its primary runway is operated with an Instrument Landing System (ILS) and can handle aircraft up to Boeing 737s. Private businesses provide charter and maintenance services. Hangars, sheds and tie downs for private planes are available.



Figure 5 – Air Operations at William R Fairchild International Airport

The Port of Port Angeles also owns and operates the Sekiu Airport. Sekiu Airport serves the west end of Clallam County and provides access to the more remote areas of the Olympic Peninsula. Significantly smaller than Fairchild International, it has a 2100-foot lighted runway with a visual approach indicator. It is about a mile from the small, picturesque town of Sekiu, located on the west side of Clallam Bay. The airport is a favorite of those who travel to the Peninsula for outdoor recreation. This airport has 9 hangar tenants but no other business activity.

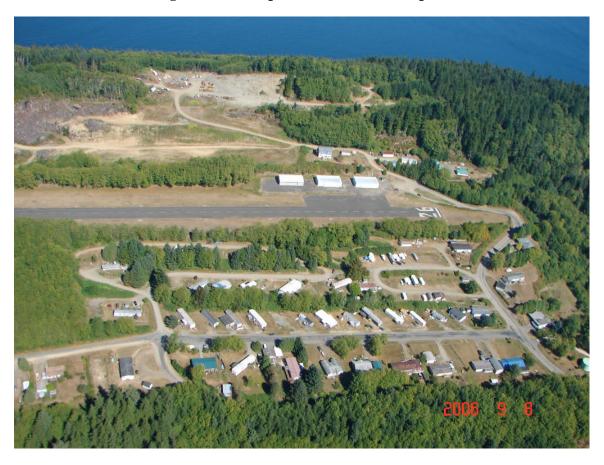


Figure 6 – Air Operations at Sekiu Airport

The airport was viewed as a necessity by several of the businesses operating at Port properties. Its economic benefits include:

- Economic development officials point out that connectivity (via air service) with other regions (both national and international) is critical in attracting businesses to relocate as well as to retain those that are already located in Port Angeles,
- Major manufacturers (like Westport Shipyards) have prospective clients arriving in Port Angeles by air to view their products,

- Realtors indicate that land development throughout the County is facilitated by potential buyers use of the airport<sup>4</sup>,
- The airports also help facilitate numerous key community services such as medical evacuations, emergency fire and disaster responses, and mercy flights, among other community benefits.

The Port is planning improvements at Fairchild Airport to meet the demands of its users, including general aviation, a growing number of corporate jets and commercial passenger and freight services.

The economic activity associated with the airports consists of activity by:

- Airplane operators (local and non-local),
- Fixed base operator or FBOs (i.e., Rite Bros. Aviation),
- Businesses that are located within the airport area (i.e., there are 8 businesses that operate on Airport property), and,
- Port of Port Angeles airport operation staff.

BST Associates estimates that the Port of Port Angeles airport generated the following economic activity in 2006:

• Direct Impacts

Jobs – 121 jobs<sup>5</sup>
Income - \$2.7 million

Business revenue - \$11.6 million

• Total Impacts in Clallam County

Jobs – 222 jobs

Income - \$5.0 million

• Total Impacts in Washington State

Jobs – 267 jobs

Income - \$5.3 million

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<sup>&</sup>lt;sup>4</sup> This study does not estimate the amount of real estate development occurring in the County that is linked with air travel. However, according to knowledgeable realtors, it is substantial.

<sup>&</sup>lt;sup>5</sup> The Washington State Division of Aeronautics estimated that William R Fairchild Airport generated 222 direct and 300 total jobs in 2000.

#### Marinas

The Port of Port Angeles operates and maintains two marinas on the shores of the Strait of Juan de Fuca.

The Boat Haven is sheltered inside Port Angeles Harbor and provides easy access to the Strait and to Victoria, BC. It is located on 16.1 acres and has moorage space for more than 520 commercial and leisure vessels, including 75 boat houses. Slips range from 24 to 50 feet and up to 164 feet broadside. Services at the Boat Haven include moorage, electricity, refueling, and a boat yard with haulout facilities, including a travel lift and a marine ways. Private firms provide boat maintenance; there are 10 to 12 shipwrights working independently at the marina. Other local marine services at the Haven include welding, mechanics, hydraulic services, fiberglass and wood repair, and painting. There were approximately 2,200 boat/nights by visiting boats in 2006.



Figure 7 – Boat Haven

The John Wayne Marina is located on spectacularly beautiful Sequim Bay, in the eastern part of Clallam County. Originally owned by the family of John Wayne, the Port developed the marina in the 1980's. There are 300 permanent and 22 transient moorages for vessels up to 50', with room to expand up to 355 spaces. The public marina also features floats, a two lane launch ramp, a fuel dock with gas and diesel, sanitary pump-out, laundry, restrooms, showers, two public park and picnic areas, and a walking promenade around the facility. The main building has a large public meeting room that is used for social events, weddings, conferences, banquets and service club meetings. It is available for rent and can be booked through the harbormaster. The main building also houses a general store and the clubroom of the Sequim Bay Yacht Club.

Access to water-based recreational activities is very important to the residents of Clallam County. The Port owns and operates the two major marinas in the County. John Wayne Marina has been recognized as one of the best small marinas on the West Coast. The Port has developed plans to enhance John Wayne Marina, including the reintroduction of a café/restaurant.

The Port is also undertaking a major redevelopment of the Boat Haven to replace facilities and meet the needs of its existing and future users.

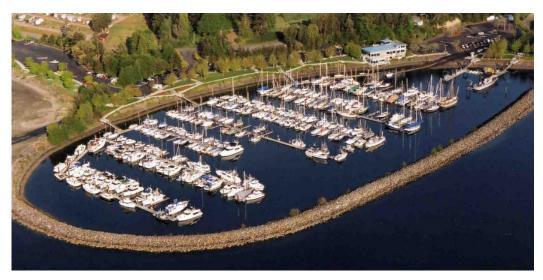


Figure 8 – John Wayne Marina

The economic activity associated with the marinas consists of activity by:

- Boat operators expenditures (permanent and transient moorage),
- Businesses that are located within the marina area (i.e., there are 26 individuals and/or businesses that operate at the marinas and related areas), and,
- Port of Port Angeles marina operations staff and agents.

BST Associates estimates that the marinas generated the following economic activity in 2006:

• Direct Impacts

Jobs – 204 jobs

Income - \$4.6 million

Business revenue - \$27.5 million

• Total Impacts in Clallam County

Jobs – 412 jobs

Income - \$10.4 million

• Total Impacts in Washington State

Jobs - 490 jobs

Income - \$11.7 million

#### Marine Terminal

On the waterfront, the Port administers and maintains several marine terminals and a log dump, where the Port provides equipment, cargo services and facilities for large vessel loading and repair, including log and lumber barges and containerized cargo businesses.

The Port of Port Angeles's Marine Terminal complex is located on the waterfront in the center of Port Angeles. The Marine Terminal complex includes four deep-water marine terminals (T-1, T-3, T-5 and T-7) that offer the ability to accommodate a wide variety of vessels and to handle and store forest products, containers and heavy-lift project cargo. The Port also owns terminals used for ferry service and other marine related activities. The Marine Terminal complex hosts firms engaged in boat building and topside ship repair.

Terminal 1 offers berthing to vessels up to 1200 feet and 125,000 dwt. It has tie-up bollards, an open apron, and is 950 feet long with remote dolphins. Services on site include 1200 amps power service, potable water, phones, lights, garbage, fuel, lubes, bunkering, stores, cranes and environmental services. This terminal can accommodate vessels requiring repair and Critical Area Inspection program inspectors. Handling equipment includes light-duty cranes and forklifts.



Figure 9 -Port Angeles Marine Terminal - Topside Repair

Terminal 3 ("T" Pier) is the main cargo loading terminal. It is 445 feet long with an open apron, and is supported by a five acre back-up storage yard. It offers the same services and handling equipment as Terminal 1. This terminal is used for loading forest products and cargo bound for domestic destinations.

"T" Pier can handle loading from both water and wharf, and is the Port's heavy lift pier. It accommodates cranes up to 200 tons. Log stackers are available.

Terminal 5 is currently being used as a barge loading facility. It is 348 feet long and has three acres of upland storage.

Convenient and easily accessible, Terminal 7 is a lay berth of craft up to 750 feet in length and 50,000 dwt. It is 410 feet long and has an apron width of 30 feet, with easy pier-side access. It has power, water, lights, garbage and phone, and is supported by up to eleven acres of storage. Its forklifts have up to 16,000 pounds in capacity.



Figure 10 – Port of Port Angeles - PFD Log Yard

Westport Shipyard, which is recognized as the 11<sup>th</sup> largest megayacht builder in the world, produces its flagship product (the 164-foot tri-deck cruising yacht) in Port Angeles. Other Port tenants (Washington Marine, Straits Marine, and Arrow Marine among others) have built a strong reputation for providing topside repair for commercial vessels. In addition, Platypus Marine provides repair services for large recreational boats.

Port facilities also serve two companies providing ferry service to Victoria, British Columbia (Victoria Express and Black Ball Transport). The Port, City, State, Clallam Transit and the local business community are currently developing the Port Angeles International Gateway Project which will include a multi-modal facility, public plaza, visitor center, park and ride and parking facility in downtown Port Angeles. This facility will be the downtown hub for transit buses, taxis, bicyclists, pedestrians, ferry passengers, and tourists.

Last but not least, Port Marine Terminal facilities are used extensively by the forest products industry. Logs are shipped via Port facilities to both local and distant mills. Inbound logs from Canada and other parts of the United States are barged/rafted to Port facilities and then trucked to local mills. Wood chips produced by Clallam County mills in Forks are shipped through Port facilities to paper mills. There are approximately 300 million board feet per year harvested in the Northern Peninsula (Clallam and Jefferson Counties). Of this total, approximately 25 million board feet (8 percent of total) moved via Port terminals. The forest industry in Clallam County views the Port facilities as critical to their operations.

The economic activity associated with the Marine Terminal consists of activity by:

- Businesses using Port facilities (manufacturers, service repair firms, retailers, and wholesalers, et al),
- Transportation firms (ferries and trucking firms),
- Terminal handling and vessel loading/unloading services (stevedores, longshoremen, log scalers, et al), and,
- Port of Port Angeles marine terminal operations staff.

BST Associates estimates that the Marine Terminal generated the following economic activity in 2006:

• Direct Impacts

Jobs – 636 jobs

Income - \$22.5 million

Business revenue - \$70.6 million

• Total Impacts in Clallam County

Jobs – 1,572 jobs

Income - \$38.8 million

• Total Impacts in Washington State

Jobs - 1,824 jobs

Income - \$43.5 million

#### **Properties**

The Port of Port Angeles owns and operates a number of commercial and industrial properties, covering a broad range of uses and amenities. The development of these properties has been guided by the Port's strategic vision to support and expand economic opportunity in Clallam County.

Many of these facilities are occupied by long-term, high-performing tenants that have grown their companies by taking advantage of the superior infrastructure and facilities provided by the Port. All of the Port's available properties have attractive leasing options.

Many of the Port's properties are located adjacent to or near William R. Fairchild International Airport. The Airport Industrial Complex, near the main passenger terminal, has five buildings totaling 140,000 square feet, and is zoned for heavy to light industrial use. The North Airport Industrial Park has 110 acres and adjoins the main runway of the airport. It features an attractive layout and is suitable for light industrial tenants. The Edgewood Industrial Park is across from the main airport terminal and is under development. A wide range of parcel sizes are available, suitable for light and heavy industry. All of these complexes offer industrial-level utilities, high-speed fiber optic capability and great access to transportation.



Figure 11 – Airport Industrial Area

The economic activity associated with Property consists of activity by:

- Businesses located on Port property (retailers, wholesalers, manufacturers et al), and,
- Port of Port Angeles real estate staff.

BST Associates estimates that the Property Group generated the following economic activity in 2006:

Direct Impacts

Jobs – 720 jobs

Income - \$22.7 million

Business revenue - \$77.9 million

• Total Impacts in Clallam County

Jobs - 1,267 jobs

Income - \$34.6 million

• Total Impacts in Washington State

Jobs - 1,420 jobs

Income - \$38.4 million

#### Capital Projects

The Port of Port Angeles has undertaken \$10 million in capital improvements during the past five years, or roughly \$2 million per year.

This spending on capital projects generated the following economic activity in 2004:

Direct Impacts

Jobs - 20 jobs

Income - \$642,000

Total Impacts in Clallam County

Jobs – 30 jobs

Income - \$840,000

• Total Impacts in Washington State

Jobs – 34 jobs

Income - \$969,000

## **Appendix**

#### **Description of Implan Model**

Minnesota IMPLAN Group, Inc. or MIG, Inc was founded in 1993 by Scott Lindall and Doug Olson as an outgrowth of their work at the University of Minnesota starting in 1984. This developmental work closely involved the U.S. Forest Service's Land Management Planning Unit in Fort Collins, and Dr. Wilbur Maki at the University of Minnesota.

In 1993, Scott and Doug entered into a technology transfer agreement with the University of Minnesota that allowed them to form the company. At first, MIG, Inc. focused on database development and provided data that could be used in the Forest Service version of the software. In 1995 MIG, Inc. took on the task of writing a new version of the IMPLAN software from scratch. This new version extended the previous Forest Service version by creating an entirely new modeling system that included creating Social Accounting Matrices (SAMs) – an extension of input-output accounts, and resulting SAM multipliers. Version 2 became available in May of 1999.

Input-output accounting describes commodity flows from producers to intermediate and final consumers. The total industry purchases of commodities, services, employment compensation, value added, and imports are equal to the value of the commodities produced.

Purchases for final use (final demand) drive the model. Industries produce goods and services for final demand and purchase goods and services from other producers. These other producers, in turn, purchase goods and services. This buying of goods and services (indirect purchases) continues until leakages from the region (imports and value added) stop the cycle.

These indirect and induced effects (the effects of household spending) can be mathematically derived. The derivation is called the Leontief inverse. The resulting sets of multipliers describe the change of output for each and every regional industry caused by a one dollar change in final demand for any given industry.

Creating regional input-output models require a tremendous amount of data. The costs of surveying industries within each region to derive a list of commodity purchases (production functions) are prohibitive.

IMPLAN was developed as a cost-effective means to develop regional input-output models. The IMPLAN accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the Bureau of Economic Analysis (1980) and the rectangular format recommended by the United Nations.

The IMPLAN system was designed to serve three functions: 1) data retrieval, 2) data reduction and model development, and 3) impact analysis. Comprehensive and detailed data coverage of the entire U.S. by county, and the ability to incorporate user-supplied data at each stage of the model building process, provides a high degree of flexibility both in terms of geographic coverage and model formulation.

The IMPLAN database, created by MIG, Inc., consists of two major parts: 1) a national-level technology matrix and 2) estimates of sectorial activity for final demand, final payments,

industry output and employment for each county in the U.S. along with state and national totals. New databases are developed annually by MIG, Inc.

IMPLAN easily allows the user to do the following:

- Develop his/her own multiplier tables;
- Develop a complete set of SAM (Social Accounting Matrix) accounts;
- Change any component of the system, production functions, trade flows, or database;
- Generate type I, II, or any true SAM multiplier internalizing household, government, and/or investment activities
- Create custom impact analysis by entering final demand changes;
- Obtain any report in the system to examine the model's assumptions and calculations.

There are two components to the IMPLAN system, the software and databases. The databases provide all information to create regional IMPLAN models. The software performs the calculations and provides an interface for the user to make final demand changes.

#### **IMPLAN SOFTWARE**

MIG developed the current version of IMPLAN Professional® version 2.0 in 1999. It is a Windows based software package that performs the calculations necessary to create the predictive model. The software reads the database, creates the complete set of social accounting matrices (SAM), the I/O accounts, and derives the predictive multipliers. The software also enables the use to make changes to the data, the trade flows, or technology. It also enables the user to make final demand changes which results in the impact assessment.

There are more than 1,500 users of the Implan model, including:

- Federal Government (Agricultural Statistics Service, Animal & Plant Health Inspection Service, Appalachian Regional Commission, Argonne National Laboratory, Army Corp of Engineers, Bureau of Economic Analysis, Bureau of Land Management, Bureau of Reclamation, Economic Research Services, Environmental Protection Agency and Federal Reserve Bank, among others)
- State Government (Several departments in Washington State including Dept of Community Develop, Dept of Ecology, Dept of Health, Dept of Revenue, Dept of Transportation, and Office of Insurance Commissioner, among several others in other states)
- Colleges and universities (Eastern Washington University, Washington State University among others) as well as others in the private sector.