

Port of Olympia

2004 Economic Impact Study Final Report

PREPARED FOR
Port of Olympia

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Executive Summary

Overview

Role of Ports

Port authorities are unique government entities whose primary purpose is to facilitate economic development and contribute directly and indirectly to the economic health and vitality of their communities. Ports accomplish this through business operations and investments in infrastructure, such as roads and utilities, to spur private sector development. The Port of Olympia operates four unique business units: a regional airport, marine terminal, a marina and boatyard facility, and property development for commercial, recreational and light industrial users.

Ports also administer economic development tools for use by private business, such as Industrial Development Revenue Bonds and Foreign-Trade Zones. The Port of Olympia serves as Grantee of Foreign-Trade Zone #216 that serves four counties and provides some trade advantages for companies importing goods from other countries.

Port of Olympia Mission Statement

The purpose of the Port of Olympia shall be to vigorously manage its assets to provide maximum benefits to the citizens of Thurston County. To do this, the Port shall BUILD relationships, facilities and infrastructure that help the Thurston County economy GROW, while it serves those who MOVE products and people and accepts a role to IMPROVE Thurston County's recreational options and environment.

Economic Impact Study Goals

The purpose of the Economic Impact Study is to document how investments and business activities by the Port and its tenants make an impact in the local community. The study has three key objectives: 1) to determine if public funds the Port of Olympia has invested over the past years is making a difference in our community; 2) to gain information from Port tenants and customers on how the Port can improve its public services and 3) to provide measurable results and data to interested parties in the community on the Port and its tenants' economic impacts.

Changes in Business Operations Since Last Port Study

The Port has undergone many changes over the past eight years, including broader diversification of its four business units. For example, the revenues generated by the Olympia Regional Airport have increased from one percent to six percent of total business revenues through an increase in tenant base and operations. The Marine Terminal has diversified its cargo base and strengthened its position in the forest products sector. Swantown Marina has added 157 new slips, and the Port opened the Swantown Boatworks, a new business, in 1999. The property development program has maintained steady growth, bringing several new commercial properties to market, while losing two industrial tenants on the Olympia waterfront.

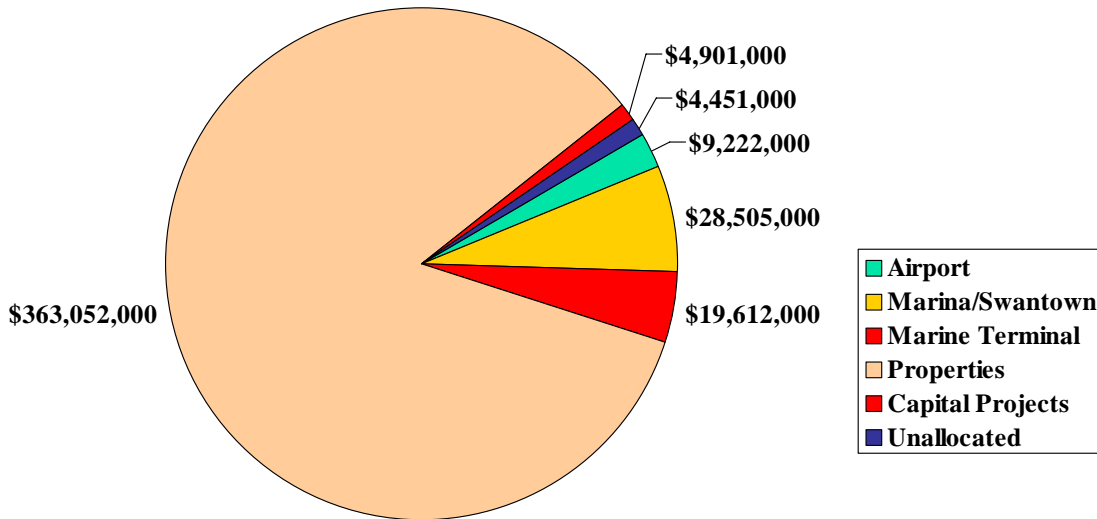
Summary of Impacts

The Port of Olympia retained BST Associates to estimate the economic impact generated in calendar year 2004 by the Port and its tenants operating on Port of Olympia property.

Direct Business Revenue

The Port and its tenants generate extensive economic activity in Thurston County and throughout Washington State. As shown in Figure 1, the Port and its tenants generated approximately \$429 million in direct business revenue in 2004. Tenants at properties owned by the Port of Olympia generated \$363 million in revenue, followed by \$28.5 million at Swantown Marina & Boatworks, \$19.6 million at the Marine Terminal; \$9 million at the Olympia Regional Airport, \$5 million in capital projects and \$4.5 million in unallocated administrative activities.

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

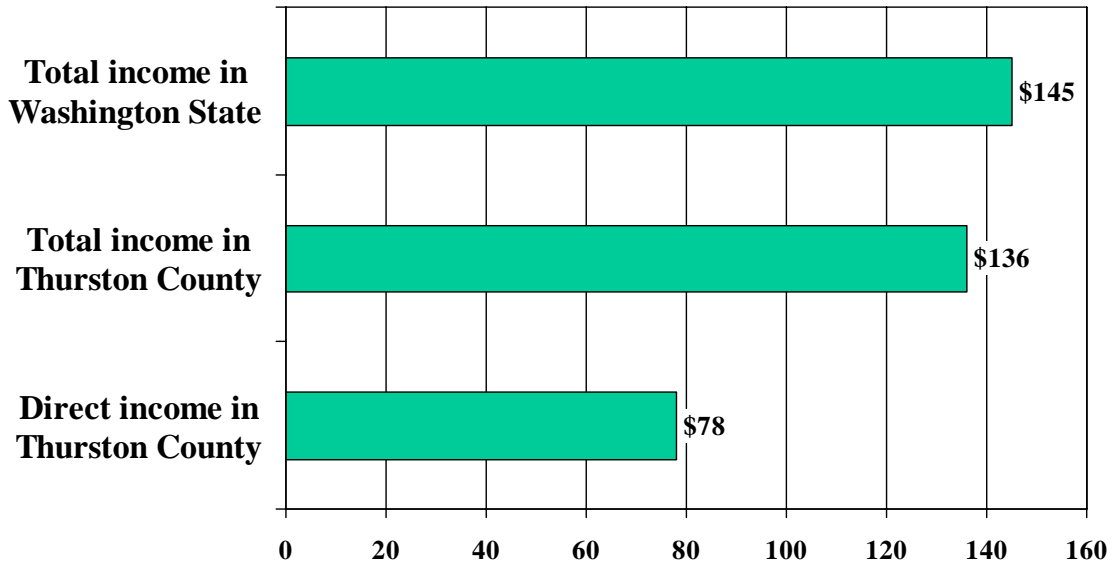


Income

The Port and its tenants generated direct income at Port facilities of \$78 million in 2004. These jobs were relatively high paying, averaging \$35,000 (over \$17 per hour) with some jobs paying as much as \$59,000 (\$29 per hour across all businesses using the Marine Terminal).

Including direct, indirect and induced impacts, the Port and its tenants generated \$136 million in income in Thurston County and \$145 million in Washington State in 2004 as result of its own and its tenants' activities.

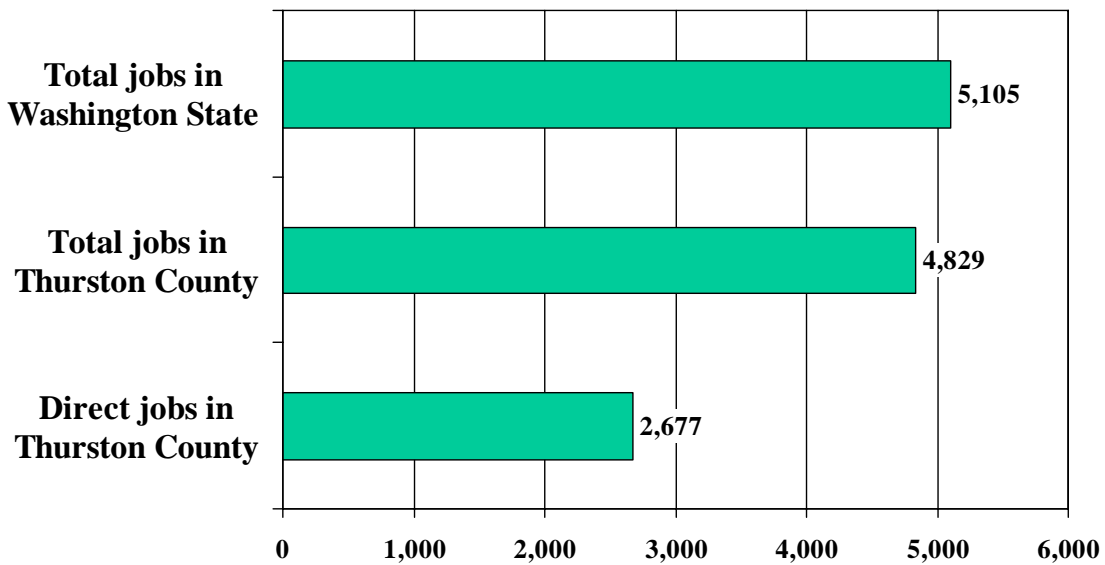
Figure 2 - Income Generated by the Port of Olympia and its Tenants in 2004 (in \$ Millions)



Employment

As shown in Figure 3, the Port of Olympia generated an estimated 2,677 jobs in 2004 as a result of its own and its tenants' activities. Including direct, indirect and induced impacts, the Port and its tenants generated 4,829 jobs in Thurston County and 5,105 jobs in Washington State in 2004.

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



The Port of Olympia and its tenants generated the following number of direct jobs in 2004 by line of business or activity center:

- Olympia Regional Airport – 166 jobs,
- Swantown Marina & Boatworks – 131 jobs,
- Port of Olympia Marine Terminal – 131 jobs,
- Properties at NewMarket Industrial Campus and Budd Inlet Peninsula – 2,164 jobs,
- Capital projects undertaken in 2004 – 36 jobs and
- Unallocated jobs (administration, security and other vendors that serve several lines of business) – 50 jobs.

Taxes

According to the Tax Foundation, Washington State residents paid approximately 10.2 percent of their personal income in state and local taxes. Applying this tax rate to total income¹ implies that the Port and its tenants generated state and local taxes of \$14.8 million in 2004.

The Port and its tenants generated approximately \$500,000 to each city (Olympia and Tumwater) from leasehold, business and occupation, and sales and use taxes².

Longitudinal Comparison

The Port of Olympia conducted an economic impact study in 1997 covering impacts for 1985, 1991, and 1996. It should be noted that the methodologies of the 1997 and 2005 studies are different. The 1997 study utilized the U.S. Department of Transportation Maritime Administration’s Port Economic Impact Kit (based on RIMS multipliers), and the present study used Implan multipliers. In addition, the nature of the Port has changed significantly between 1996 and 2004, as the Port has become much more involved in property development in the recent past. With these caveats in mind, a comparison of results is provided in Table 1. The Port has experienced the following gains in economic impact:

- Direct revenue has increased from \$243 million in 1985 to \$430 million in 2004, up 76%,
- Total income has increased from \$64 million in 1985 to \$145 million in 2004, up 126%,
- Total jobs have increased from 2,199 jobs in 1985 to 5,105 jobs in 2004, up 132%.

**Table 1 – Longitudinal Comparison of the Impact of Port Investments
(Total Impacts of the Port of Olympia & its Tenants in 2004 dollars)**

Category	1985	1991	1996	2004
Jobs	2,199	2,924	3,357	5,105
Income	\$63,969,000	\$115,627,000	\$105,262,000	\$144,800,000
Revenue	\$243,488,000	\$377,520,000	\$343,544,000	\$429,700,000

Source: Port of Olympia et al, BST Associates

¹ Including direct, indirect and induced effects.

² Based solely on direct revenues.

Technical Report

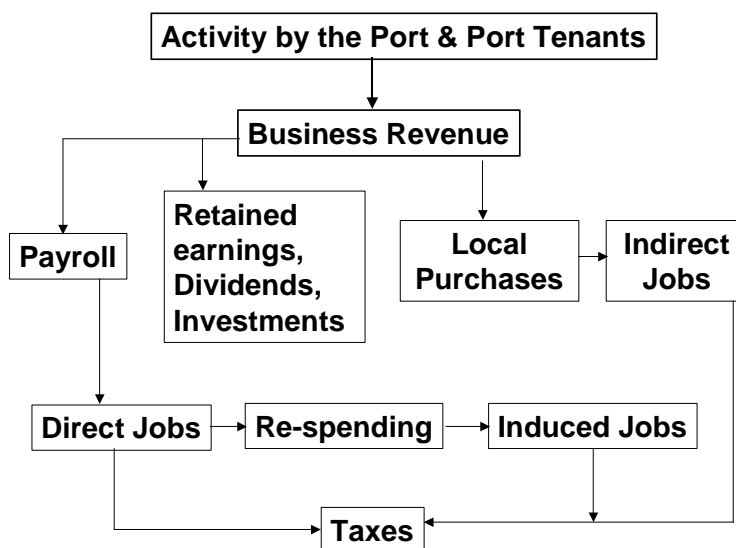
The Port of Olympia retained BST Associates to estimate the economic impact generated by the Port and its tenants operating at the marine terminal, airport, marina/boatworks and properties as well as through capital projects undertaken during the calendar year 2004.

This chapter provides a summary of the methodology and results of the Port of Olympia 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 create 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.

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 Thurston 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 Olympia 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 214 individuals and businesses. With 71 surveys returned, the mail survey had a response rate of 33 percent. 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.

Table 2 – Summary of Responses to Mailed Surveys

Category	Sent	Received	% Received
Airport Businesses	30	11	37%
Aircraft Owner	21	6	29%
Marina Businesses	24	9	38%
Marina Tenants	53	22	42%
Marine Terminal	35	8	23%
Properties	51	15	29%
Total	214	71	33%

Source: Port of Olympia, BST Associates

In addition, BST Associates contacted 25 firms by telephone or in person to further understand their economic activities at the Port of Olympia.

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 model³, 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, many of which are supplied by the local economy.

³ Please see appendix for additional information on the Implan model.

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 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: Thurston County and Washington State.

Findings

This section summarizes the findings of the Economic Impact Study.

Airport

The Olympia Regional Airport is located approximately two miles south of Olympia, within the city limits of Tumwater. The Airport consists of 835 total acres. The primary runway (17-35) measures 150 feet wide by 5,500 feet long. The secondary or crosswind runway (8-26) measures 150 feet wide by 4,157 feet long. Both runways have a pavement constructed of asphalt concrete. Land uses at the Airport include general and corporate aviation, commercial passenger/freight facilities, aviation-related commercial and light industrial uses. The Airport had approximately 170 based-aircraft in 2004 and slightly more than 94,000 operations in 2004.

Figure 5 – Plane Landing at Olympia Regional Airport



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

- Airplane operators (local and non-local),
- Fixed base operators or FBOs (i.e., there are three FBOs at Olympia Regional Airport),
- Businesses that are located within the airport area (i.e., there are 29 businesses that operate on Airport property) and
- Port of Olympia Airport operations staff.

BST Associates estimates that the Olympia Regional Airport generated the following economic activity in 2004:

- Direct Impacts
 - Jobs - 166 jobs⁴
 - Income - \$5.2 million
 - Business revenue - \$9.2 million
- Total Impacts in Thurston County
 - Jobs - 283 jobs
 - Income - \$7.6 million
- Total Impacts in Washington State
 - Jobs - 285 jobs
 - Income - \$7.9 million

Marina/Boatworks

Swantown Marina & Boatworks are located on East Bay along the eastern side of the Budd Inlet Peninsula. Swantown Marina offers permanent moorage for 656 vessels with 24-hour security and amenities such as shore power, water, cable television and modem access. There is transient moorage for 50 boats and an additional 500 lineal feet of day-use moorage at the Port Plaza on the west side of the Budd Inlet Peninsula. There were approximately 3,400 boat/nights by visiting boats in 2004. In addition, the Marina has a double-lane boat ramp with a convenient vehicle and trailer parking area, picnic areas, public telephones, restrooms, showers, laundry, garbage facility, sewage pump-out stations and secure dry boat storage. In 2004, 157 new slips were added, ranging in length from 20 to 66 feet.

Opened in 1999, Swantown Boatworks is Puget Sound's newest boatyard, offering complete haulout and repair services in an environmentally friendly setting. Swantown Boatworks consists of a 2.9-acre boatyard with a 77-ton Travelift for vessels up to 22.5 feet wide. In addition to public facilities (mast storage area, washdown/water treatment facility et al.), the boatyard offers access to numerous private vendors that offer complete boat repair services. The area also includes 20,000 square feet of marine-oriented repair, retail and office space, with the potential for an additional expansion of 45,000 square feet, and long-term, seasonal dry storage for vessels up to 80 feet.

The economic activity associated with the Marina/Boatworks consists of activity by:

- Boat operators' expenditures (permanent and transient moorage),
- Businesses that are located within the Marina/Boatworks area (i.e., there are 26 businesses that operate at the Marina/Boatworks) and
- Port of Olympia Marina operations staff.

⁴ The Washington State Division of Aeronautics estimated that Olympia Regional Airport generated 152 direct and 206 total jobs in 2000.

Figure 6 – Swantown Marina



BST Associates estimates that the Marina/Boatworks generated the following economic activity in 2004:

- Direct Impacts
 - Jobs - 131 jobs
 - Income - \$3.6 million
 - Business revenue - \$19.3 million
- Total Impacts in Thurston County
 - Jobs - 190 jobs
 - Income - \$5.1 million
- Total Impacts in Washington State
 - Jobs - 310 jobs
 - Income - \$8.6 million

Figure 7 – Boat Repair at Swantown Boatworks



Marine Terminal

The Port of Olympia’s Marine Terminal complex is located on the west side of the Budd Inlet Peninsula. The Port operates a full service, 60-acre Marine Terminal with three deepwater berths totaling 1,750 feet in length and water depth up to 40 feet. The Terminal offers diversified services that can handle on-site container, bulk, and break-bulk cargos. It features two 40-ton dockside gantry cranes, modern concrete piers and a warehouse suitable for multi-modal operations. The yards are newly fenced and gated. The Terminal, which is served by rail and truck, handled approximately 325,000 tons of cargo in 2004. The Terminal also provides a lay berth for visiting vessels.

Table 3 – Port of Olympia Marine Terminal Cargo Traffic for 2004

Commodity	Metric Tons
Export Logs	203,561
Wire Rod & Pipe	1,591
Aluminum	78,036
Domestic Logs	15,588
Coal	2,989
DOD Cargoes	13,036
Limestone	7,680
Glass	2,500
Total	324,981

Source: Port of Olympia

Figure 8 –Ship Loading at Marine Terminal



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

- Cargo generating businesses (retailers, wholesalers, trading companies et al.),
- Inland transportation firms (rail and trucking firms),

- Terminal handling and vessel loading/unloading services (stevedores, longshoremen, log scalers, et al.) and
- Port of Olympia Marine Terminal operations.

BST Associates estimates that the Marine Terminal generated the following economic activity in 2004:

- Direct Impacts
 - Jobs -131 jobs
 - Income - \$7.7 million
 - Business revenue - \$12.8 million
- Total Impacts in Thurston County
 - Jobs - 227 jobs
 - Income - \$15.2 million
- Total Impacts in Washington State
 - Jobs - 360 jobs
 - Income - \$18.3 million

Property Development

The Port of Olympia has extensive land holdings for commercial and industrial development. NewMarket Industrial Campus, which is located adjacent to the Olympia Regional Airport in Tumwater, consists of 440 acres. In addition, the Port has property on the Budd Inlet Peninsula that is being developed for commercial and light industrial uses.

There are approximately 77 firms located on Port property. The Port owns approximately 272,000 square feet of commercial and industrial building space in its real estate holdings. Tenants of the Port own approximately 490,000 square feet of commercial and industrial space in Tumwater and the Budd Inlet Peninsula.

The economic activity associated with Property Development consists of activity by:

- Businesses located on Port property (retailers, wholesalers, manufacturers et al.) and
- Port of Olympia Property Development staff.

BST Associates estimates that the Property Group generated the following economic activity in 2004:

- Direct Impacts
 - Jobs - 2,164 jobs
 - Income - \$57.8 million
 - Business revenue - \$363 million

- Total Impacts in Thurston County
 - Jobs – 4,001 jobs
 - Income - \$103.4 million
- Total Impacts in Washington State
 - Jobs – 4,014 jobs
 - Income - \$103.9 million

Figure 9 – Olympia Farmers Market



Figure 10 – Property Development Tenant



Capital Projects

The Port of Olympia undertook \$4.9 million in capital improvements in calendar year 2004, most of which was related to expansion of the Marina. Some of the 2004 capital budget was also used to continue the cleanup of the Cascade Pole property. It should be noted that over the last eight years, the Port has invested in several important non-revenue generating improvements including the cleanup of contaminated properties and development of public amenities (Port Plaza, walking trails, etc.).

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

- Direct Impacts
 - Jobs - 36 jobs
 - Income - \$1.3 million
- Total Impacts in Thurston County
 - Jobs - 57 jobs
 - Income - \$2.2 million
- Total Impacts in Washington State
 - Jobs - 65 jobs
 - Income - \$2.5 million

General Administration & Security (unallocated)

The Port of Olympia General Administration, which has not been allocated to one of the preceding lines of business, also generates economic activity in Thurston County and beyond.

BST Associates estimates that the Port's General Administrative Group generated the following economic activity in 2004:

- Direct Impacts
 - Jobs - 50 jobs⁵
 - Income - \$2.0 million
 - Business revenue - \$4.5 million
- Total Impacts in Thurston County
 - Jobs - 71 jobs
 - Income - \$2.7 million
- Total Impacts in Washington State
 - Jobs - 75 jobs
 - Income - \$3.6 million

⁵ This includes direct Port of Olympia staff and indirect employees (in firms that received expenditures from the General Administration).

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.