

THE 2014 ECONOMIC IMPACT OF THE PORT OF EVERETT



PREPARED FOR:
Port of Everett
1205 Craftsman Way, Suite 200
Everett, WA 98201
www.portofeverett.com



PREPARED BY:
MARTIN ASSOCIATES
941 Wheatland Ave., Ste. 203
Lancaster, PA 17603
(717)295-2428
www.martinassoc.net

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EXECUTIVE SUMMARY

Martin Associates was retained by the Port of Everett to measure the local and regional economic impacts supported by maritime cargo, real estate and marina activity at the Port.

In addition to the baseline impact estimates, a computer model specific to the Port of Everett marine terminals and marina has been prepared, which can be used in evaluating the sensitivity of impacts to changes in tonnage, labor productivity, labor work rules, commodity mix, inland origins/destinations of commodities and vessel size. The model can also be used to evaluate the impacts of new terminal development and for annual updates, as well as changes in the Port's non-maritime tenant base. A marina model has also been developed as part of this study, which can be used to test the changes in economic impacts due to changes in the number of sailboats and power boats moored at the Port's facilities, as well as transient operations. The methodology used in this analysis has been used by Martin Associates to estimate the economic impacts of seaport activity at more than 300 United States and Canadian ports.

The Port of Everett commissioned the economic impact studies in 2008 and 2011, and the data and economic impact models developed as part of those studies were used to estimate the 2014 economic impacts.¹

In 2014, the Port of Everett supports the following economic impacts in the local and state economies:

35,130 total direct, induced and indirect jobs. Of the total jobs supported by Port activity, 13,813 are direct jobs, while 17,770 are jobs supported in the local economy due the purchases of goods and services by the directly employed individuals. As the result of \$583.4 million of purchases of local supplies and services by the firms providing the direct services to the Port or that are directly dependent upon the port for the import and export of cargo, an additional 3,546 indirect jobs are supported. An additional 20,000 jobs at the Boeing facility are supported by activity at the Port of Everett.

A total of \$3.9 billion of total wages and salaries and local consumption expenditures are created in the local and regional economy by the activity at the Port of Everett. The direct job holders received nearly \$1.2 billion of direct wages and salaries, for an average salary of \$86,703. As the result of local purchases made by the directly employed individuals, an additional \$2.6 billion of local consumption expenditures and induced wages and salaries were created. The 3,546 indirect job holders received \$141.9 million of wages and salaries.

Local businesses received \$4.3 billion of revenue. This revenue is supported from providing services at the Port of Everett to the cargo and marina activity, as well as the activity supported with the tenants and dependent shippers/consignees as the result of imports and exports used by local

¹ The Economic Impact of the Port of Everett, 2011, prepared by Martin Associates for the Port of Everett, May, 2012.

manufacturing facilities, including the portions of the Boeing operations that are dependent upon the Port for receipt of specific imported aircraft parts.

A total of \$583.4 million of local purchases were made due to the Port activity, which supported the indirect jobs.

The Port of Everett cargo, marina and tenant activity supported \$373.2 million of state and local tax revenue. The state of Washington received about \$227.7 million of this tax revenue, with the local governments receiving the balance.

I. OVERVIEW OF THE ANALYSIS AND SUMMARY OF RESULTS

Martin Associates was retained by the Port of Everett to measure the local and regional economic impacts supported by marine cargo and marina activity at the Port. Also included are the impacts of the Port of Everett's non-cargo and non-marina related tenants such as restaurants, hotels, and professional services that are tenants of the Port of Everett.

In addition to the baseline impact estimates, a computer model specific to the Port of Everett marine terminals and marina has been prepared, which can be used in evaluating the sensitivity of impacts to changes in tonnage, labor productivity, labor work rules, commodity mix, inland origins/destinations of commodities and vessel size. The model can also be used to evaluate the impacts of new terminal development and for annual updates, as well as changes in the Port's non-maritime tenant base. A marina model has also been developed as part of this study, which can be used to test the changes in economic impacts due to changes in the number of slips, composition of sailboats vs. power boats moored at the Port's facilities, as well as transient operations. The methodology used in this analysis has been used by Martin Associates to estimate the economic impacts of seaport activity at more than 300 United States and Canadian ports.

The Port of Everett commissioned the economic impact study in 2008 and 2011, and the data and economic impact models developed as part of that study were used to estimate the 2014 economic impacts.²

The methodology used in this analysis has been used by Martin Associates to estimate the economic impacts of seaport activity at more than 300 United States and Canadian ports.

This chapter presents an overview of the economic impact analysis by defining the following:

- The types of economic impacts estimated
- The economic sectors for which impacts have been estimated
- The commodities/commodity types for which impacts have been estimated

In addition, a summary of the data sources used in the analysis is presented.

1. ECONOMIC IMPACT STRUCTURE

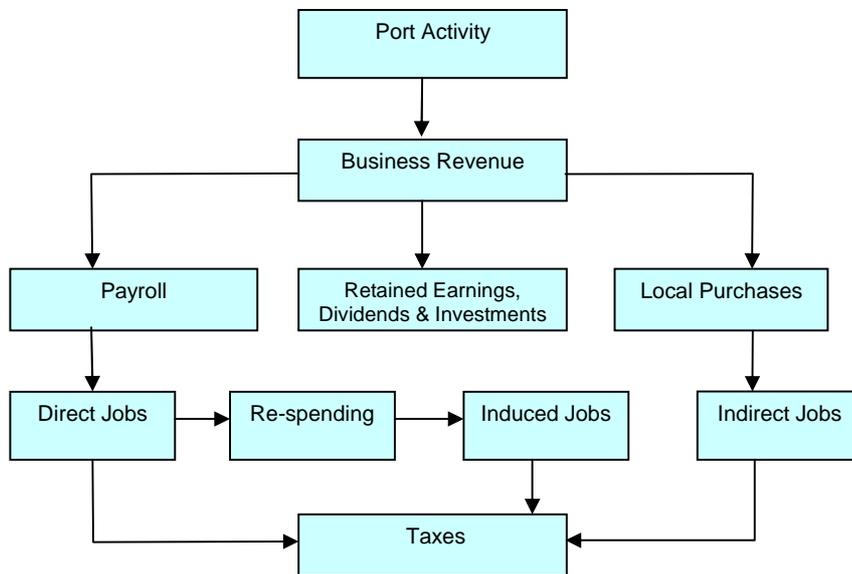
A deep water port such as the Port of Everett contributes to the local, regional, and national economies by providing employment and income to individuals, tax revenues to local and state governments, and revenue to businesses engaged in handling, shipping, and receiving cargo via the port. Exhibit 1 illustrates the flows of economic impacts throughout the economy. As this exhibit shows,

² The Economic Impact of the Port of Everett, 2011, prepared by Martin Associates for the Port of Everett, May, 2012.

activity at a seaport (i.e., the handling of cargo, the servicing of vessels, and recreational boating) initially creates business revenue to firms providing those cargo handling and vessel services, and services supporting recreational boating. This revenue is in turn used for several purposes:

- To hire employees to provide the services
- To pay stockholders dividends, retire debt, and invest
- To buy goods from other firms
- To pay federal, state, and local taxes

Exhibit 1
Flows of Economic Activity through the Economy



The hiring of employees supports personal income. This personal income is spent throughout the state, local and national economy to purchase goods and services. This re-spending of income is known as the multiplier effect, which in turn creates induced jobs throughout the economy. Finally, state and local taxes are paid by those directly employed due to port activity and those employed as a result of the in-state purchases of goods and services by those individuals directly employed.

As can be seen from Exhibit 1, and the previous discussion, the flow of economic impacts throughout an economy creates four separate and non-additive types of impacts. These four types of impacts are:

- Employment Impact - the number of full-time equivalent jobs supported by activity at the marine cargo terminals and marina at the Port of Everett, as well as the Port's non-

maritime tenants. This impact consists of jobs directly supported by port activity as well as induced jobs, or jobs created in-state due to the purchase of goods and services by those individuals directly dependent upon port activity. In addition, indirect jobs, or those jobs supported in the local economy due to the local purchases of goods and services by firms directly dependent upon maritime activity at the Port, are also measured as part of the employment impact.

- Income Impact - the level of earnings associated with the jobs created by port activity, and adjusted to reflect re-spending throughout the economy.
- Revenue Impact - the sales supported by firms engaged in handling and transporting cargo through the Port of Everett and servicing the recreational boating activity and the Ports marina. This impact includes national as well as local and state revenue. The value of shipments through the Port is not included as a revenue impact for the purposes of this analysis.
- Tax Impacts - the state and local tax revenues supported by port activity. These are taxes paid by individuals and firms directly dependent upon the maritime activity.

Shipments and receipts of cargo through the marine terminals at the Port of Everett support economic activity in various business sectors of the state and local economy. Specifically, the following economic sectors are involved in providing cargo and vessel handling services at the Port of Everett. These are the:

- Surface Transportation Sector
- Maritime Service Sector
- Dependent Shippers/Consignees
- Non-Maritime Tenants
- Port of Everett Administration

Within each sector, various participants are involved. Separate impacts are estimated for each of the participants. A discussion of each of the economic impact sectors is provided below, including a description of the major participants in each sector.

A separate impact analysis was conducted for the Port-owned Waterfront Place tenants and Port of Everett Marina comprised of nearly 2,300 permanent and guest moorage slips.

1.1 The Surface Transportation Sector

The surface transportation sector consists of both the railroad and trucking industries. These sectors are responsible for moving the various cargoes between the Port and their inland origins and destinations.

Many local and national trucking firms serve the marine terminals at the Port of Everett, as do numerous individual owner-operators. The trucking industry's major involvement is in moving containers, overdimensional general cargo and cement cargo for local distribution. Also, logs are delivered by truck to the log yard, before being towed by tug to vessels at the Port of Everett for export. Rail is used to move general cargo, as well as to move the oversized containers destined for the Boeing facility between the Port's Mt. Baker Terminal and the Boeing facility.

1.2 The Maritime Service Sector

This sector consists of numerous firms and participants performing functions related to the following maritime services:

- Cargo Marine Transportation
- Vessel Operations
- Cargo Handling
- Linehaul Barge Operators
- Federal, State, and Local Government Agencies

A brief description of the major participants in each of these categories is provided below:

- Cargo Marine Transportation - Participants in this category are involved in arranging for inland and water transportation for the export or import of freight through the Port of Everett. The freight forwarder/customhouse broker is the major participant in this category. The freight forwarder/customhouse broker arranges for the freight to be delivered between the marine terminals and inland destinations, as well as the ocean transportation. This function performed by freight forwarders and customhouse brokers is most prevalent for general cargo commodities. For bulk cargo, arrangements are often made by the shipper/receiver.
- Vessel Operations - This category consists of several participants providing vessel services including:
 - Steamship agents - provide a number of services for the vessel as soon as it enters the Port; including arranging for pilot tug assist services, for medical and

- dental care of the crew, and for ship supplies. Agents are also responsible for vessel documentation;
 - Pilots – provide navigation services to ensure safe transit of vessels between the harbor entrance and docks;
 - Towing firms - provide the tug service to guide the vessel to and from port;
 - Launch services - provide transportation for the crew between land and vessel;
 - Shipyards/ship repair firms - provide repairs, either emergency or scheduled;
 - Barge operators - move cargo to and from the Port of Everett and neighboring Puget Sound ports.
- Cargo Handling - This category involves the physical handling of the cargo at the Port between the land and the vessel. Included in this category are the following participants:
 - Longshoremen - are members of the International Longshore and Warehouse Union (ILWU), and are involved in the loading and unloading of cargo from the vessels, as well as handling the cargo prior to loading and after unloading;
 - Stevedoring Firms - manage the longshoremen and cargo-handling activities;
 - Terminal Operators - are often stevedoring firms who operate the maritime terminals where cargo is loaded and off-loaded;
 - Barge Operators - move dry bulk cargo such as sand and gravel and aggregates, logs, chips and bunker ships while in port. Barges also move containers between Tacoma and Everett for use by the Boeing facility in Everett.
 - Government Agencies - This service category involves federal, state and local government agencies that perform services related to cargo handling and vessel operations at the Port. U.S. Customs, Bureau of Immigration, U.S. Department of Labor, U.S. Department of Agriculture, and U.S. Department of Commerce employees are involved. In addition, both civilian and military personnel with the U.S. Coast Guard and the U.S. Army Corps of Engineers have been included.

- Consultants/Architects – This category includes engineers, architects and consultants who provide a wide spectrum of services to the maritime industry, including terminal design, naval architect services, and planning services.
- Miscellaneous - This category includes a wide range of service providers, including environmental firms, security firms, and firms providing fumigation services.
- Banking/Insurance/Law - This service sector is not directly involved in cargo or ship operations, it nonetheless does provide services such as financing export/import transactions and insuring cargo and vessels. Also included in this sector are legal firms specializing in maritime law.

1.3 Port Shippers/Consignees

The Port of Everett serves a critical function in support of the manufacturing and construction base. The Port of Everett is a deep-water port in Washington State, and is located 25 miles north of Seattle. The Port of Everett is served by the Burlington Northern Santa Fe (BNSF) railroad and plays a vital role in support of the local aerospace industry. As a result, Everett's custom district was ranked first in the state with more than \$22.7 billion in exports in 2013, according to the U.S. Customs and Foreign Trade Division. The Port of Everett's major trading partners are Japan, South Korea, Russia, China and the South Pacific. Its primary imports are aerospace parts, steel, machinery, wind energy parts and bulk cement. Its major exports, includes machinery, steel, oil and gold mining equipment, aerospace containers, forest products, and other general and containerized cargoes.

The Boeing facility located in Everett is a major user of the Port of Everett. The Port of Everett is an essential element in this supply chain, as its facilities accommodate all the oversized aerospace parts for the 747, 767, 777 and soon to be 777X airplanes, and serves as a backup for the 787 Dreamliner. These parts arrive from Japan to the Port's deep-water shipping terminals approximately four miles north of Mount Baker Terminal.

The fuselage and other airplane components are staged and distributed based on the manufacturing needs of the program. To deliver the parts to the Everett Boeing Factory, the largest building in the world by volume, the Port of Everett loads the requested jetliner parts onto a barge, which is then transported to Mount Baker Terminal. Mount Baker Terminal is a custom shipping facility that opened in 2008 to transport oversized aerospace containers. The parts are transferred from a barge at Mount Baker Terminal to a BNSF railroad car via an electric rail mounted gantry crane for shipment to Boeing via the steepest operating grade – 5.7 percent – in North America. Oversized containers are also received in Tacoma, and then reloaded onto barges for the shipment to the Port of Everett before being reloaded to a shuttle barge to the Mt. Baker Terminal. In addition to the oversized containers, standard marine containers are also discharged at the Port of Everett and moved by truck to the Boeing facility. Discussions with Boeing indicated that the 777 line would not be located at the

Everett plant in the absence of the Mt. Baker Terminal, as the logistics model depends upon the ability to receive the body panels in oversized containers, and move the containers to the Everett plant. A similar situation exists for the KC-46 tanker program at the Boeing facility, in which the Mt. Baker Terminal is a critical component of the Boeing tanker program.

In addition to the 777 program, 767, and the KC-46 tanker line, the Port of Everett operations are also key in supporting the 747 and 787 Dreamliner production lines at Boeing's Everett facility.

1.4 Non-Maritime Tenants

The Port also leases land to tenants not directly engaged in cargo activity. These tenants do not export and import via the marine terminals but in some cases these tenants provide services to the maritime community. These non-marine cargo tenants include restaurants, a hotel, professional services, light manufacturing, and transportation/distribution activity.

1.5 Port of Everett

The Port of Everett includes those individuals employed by the Port whose purpose is to oversee port activity, including cargo, marina activity and real estate tenants.

2. COMMODITIES INCLUDED IN THE ANALYSIS

A major use of an economic impact analysis is to provide a tool for port development planning. As a port grows, available land and other resources for port facilities become scarce, and decisions must be made as how to develop the land and utilize resources in the most efficient manner. Various types of facility configurations are associated with different commodities. For example, cement requires covered storage, while containerized cargo requires container cranes, open storage and on-, or near-dock rail. Covered storage is needed for break bulk cargo such as steel and lumber, while high and heavy equipment requires outside storage

An understanding of the commodity's relative economic value in terms of employment and income to the local community, the cost of providing the facilities, and the relative demand for the different commodities is essential in making future port development plans. Because of this need for understanding relative commodity impacts, economic impacts are estimated for the following commodities handled via the facilities at the Port of Everett:

- Containerized Cargo
- Logs
- Cement
- General Cargo

It should be emphasized that commodity-specific impacts are not estimated for each of the economic sectors described in the last section. Specific impacts could not be allocated to individual commodities with any degree of accuracy for the banking/insurance/law job category, marine construction and the government category.

3. DATA COLLECTION

This Economic Impact Study of the Port of Everett is based on a telephone survey of members of each of the economic sectors. Participants were identified by the Port of Everett and the Journal of Commerce, "Port Telephone Tickler", the Pacific Northwest Ports Handbook, and the Washington Public Ports Association Directory. Also, data collected for freight forwarders, steamship lines and agents, chandlers, pilots, tug operators and surveyors in the Pacific Northwest were used to achieve a 95 percent response rate in all sectors. In total, 73 firms in Everett were interviewed as part of the 2014 impact study and used to develop the baseline economic impact study and the resulting economic impact models used in this current update. In addition to data collected from the sources noted above, published data was collected from several sources. These publications include:

- Census of Wholesale Trade
- Census of Retail Trade
- Census of Construction
- Census of Service Industries
- Annual Survey of Manufacturers

Other published data was obtained from the U.S. Bureau of Census, County Business Patterns; U.S. Bureau of Economic Analysis, Regional Income Division; and U.S. Bureau of Labor Statistics, "Consumer Expenditure Survey, 2011/2012" for the Seattle/Tacoma/Bremerton MSA.

The economic relationships and methodology developed in 2014 have been used to develop an economic impact model that is designed to update the port impact assessment on an annual basis, as well as to test sensitivities of impacts to changes in commodity tonnage, labor productivity, labor work rules, vessel calls (by type of vessel), pilotage and tug assist assumptions. Also, the model is designed to test the impacts of new facilities development.

4. IMPACT SUMMARY

The resulting economic impacts are presented in Table 1. The impacts for marine cargo and marina and waterfront place activity at the Port of Everett are detailed, in the following table.

Table 1
Summary of Economic Impacts Supported by
Port Activity in 2014

PORT OF EVERETT	MARINE CARGO and INDUSTRIAL PROPERTY	MARINA and WATERFRONT PLACE	TOTAL PORT OF EVERETT
Jobs			
Direct	13,106	707	13,813
Induced	17,244	526	17,770
Indirect	<u>3,026</u>	<u>520</u>	<u>3,546</u>
Total Jobs	33,376	1,753	35,130
Personal Income (\$1,000)			
Direct	\$1,167,769	\$29,860	\$1,197,629
Induced	\$2,566,756	\$64,337	\$2,631,092
Indirect	<u>\$117,372</u>	<u>\$24,510</u>	<u>\$141,882</u>
Total	\$3,851,896	\$118,707	\$3,970,603
Business Revenue (\$1,000)	\$4,250,956	\$80,328	\$4,331,284
Local Purchases (\$1,000)	\$526,337	\$57,076	\$583,413
State and Local Taxes (\$1,000)	\$362,078	\$11,158	\$373,237

Note: Totals may not add due to rounding

II. ECONOMIC IMPACTS OF MARINE CARGO ACTIVITY

In this chapter, the economic impacts supported by maritime cargo activity and industrial property at the Port of Everett are documented. The chapter is organized as follows: the first half details the employment impacts, followed by personal income; revenue impacts as well as tax impacts are presented in the second half of this chapter.

1. *EMPLOYMENT IMPACTS*

First, the total employment that is in some way related to the cargo activity at the Port of Everett is estimated. Second, the subset of total employment that is judged to be totally dependent on maritime cargo activity is analyzed in the following ways: direct jobs are estimated in terms of key job categories (e.g., rail and trucking jobs, terminal operators, etc.). Induced and indirect jobs supported by local purchases made by those directly employed as a result of cargo activity and the purchases made by businesses directly dependent on cargo and vessel activity are then described.

1.1 Total Cargo Related Jobs

It is estimated that **33,376** jobs in the Everett regional economy are influenced by cargo and vessel activity the Port of Everett:

- **13,106** direct jobs are supported by cargo activity at the Port of Everett. These jobs are classified as direct jobs and if activity at the Port of Everett were to cease, these jobs would be discontinued over the short term.
- **17,244** are employed by providing goods and services to the **13,106** individuals directly involved with cargo activity. Consequently, employment in this group is as directly dependent upon port activity as the first group.
- Firms directly dependent on the Port of Everett made **\$526.3 million** of local purchases for office supplies, parts and equipment, maintenance and repair services, business services, utilities, communications services and fuel. These purchases supported **3,026** indirect jobs in the local economy.

The next section of this chapter is dedicated to the direct impact category of the **13,106** jobs.

1.2 Direct Job Impacts

As a result of port activity, **13,106** full-time jobs were directly created by cargo activity at the Port of Everett.³

Table 2 presents the distribution of the 13,106 direct jobs by type of job. As this table shows, a large impact is employment with towing, pilot, and barge jobs providing marine services to the vessels and cargo moving to and from the Port of Everett. The largest impact is with the shippers/consignees; primarily the employment with Boeing that is dependent upon the ability to receive containers, in particular the oversized containers to be used on the Boeing 777 and 767 production lines as well as the KC-46 tanker line. In addition to the 12,600 direct jobs, activity at the Port of Everett dependent on the Port for the receipt of the oversized containers used in the 747 and 787 Dreamliner production lines, an additional nearly 20,000 employees at that facility were related to cargo moving via the Port of Everett, but would be displaced if another port or supply source were used. These 20,000 jobs are not included as directly dependent on the port activity, but related to the port operations.

**Table 2
Direct Employment Impacts by Job Category**

PORT OF EVERETT	DIRECT JOBS
Surface Transportation	
Rail	10
Truck	70
Maritime Services	
Terminal Employees	22
ILWU	63
Towing/Pilots/Barge/Government	122
Agents	2
Forwarders	8
Marine Construction/Shipyards	93
Shippers Consignees	12,600
Tenants	51
Port of Everett	66
Totals	13,106

Note: Totals may not add due to rounding

³ Jobs are measured in terms of full-time equivalent workers working 2,080 hours per year. If a worker is employed only 50% of the year, the job is reported as 0.5 direct jobs.

1.3 Induced Jobs

The purchases by the 13,106 direct job holders with the direct income earned from port activity create additional jobs throughout the regional economy. In calendar year 2014, \$1.1 billion was received by those 13,106 directly employed by cargo activity at the Port of Everett. As the result of the re-spending of a portion of this income for purchases in the state of Washington, an additional 17,244 induced jobs were supported.

These induced jobs are estimated based on the current expenditure profile of residents in the Everett/Seattle/Tacoma metropolitan region as estimated by the U.S. Bureau of Labor Statistics, "Consumer Expenditure Survey", 2011/2012. This survey indicates the distribution of consumer expenditures over key consumption categories for residents of the Everett/Seattle/Tacoma metropolitan area. The consumption categories are:

- Housing
- Food at Restaurants
- Food at Home
- Entertainment
- Health Care
- Home Furnishings
- Transportation Equipment and Services

The estimated consumption expenditures supported as a result of the re-spending impact is distributed across these consumption categories. Associated with each consumption category is the relevant retail and wholesale industry. Jobs to sales ratios in each industry are then computed for the Everett/Seattle/Tacoma metropolitan area and for the state of Washington, and induced jobs are estimated for the relevant consumption categories. It is to be emphasized that induced jobs are only estimated at the retail and wholesale level, since these jobs are most likely supported initially in the Everett/Seattle/Tacoma metropolitan area and subsequently in the state of Washington. Further levels of induced jobs are not estimated since it is not possible to defensibly identify geographically where the subsequent rounds of purchasing occur.

"The Consumer Expenditure Survey" does not include information to estimate the job impact with supporting business services, legal, social services and educational services. To estimate this induced impact, a ratio of state of Washington employment in these key service industries to total state of Washington employment was developed. This ratio is then used with the direct and induced jobs to estimate induced jobs with business/financial services, legal, educational and other social services.

1.4 Indirect Jobs

The firms directly dependent upon vessel and cargo activity at the Port of Everett made \$526.3 million of purchases from local (in-state) suppliers of parts and equipment, business services, maintenance and repair services, communications and utilities, office equipment, and fuel. These purchases supported 3,026 local indirect jobs.

If maritime activity at the Port of Everett were to cease, these indirect jobs would also be lost. To estimate these indirect jobs, actual local expenditures by port-dependent firms were estimated from the telephone surveys. These expenditures were then used as inputs into a regional input-output model developed for Washington State for Martin Associates by the U.S. Bureau of Economic Analysis, Regional Input-Output Modeling System.

2. *REVENUE, INCOME AND TAX IMPACTS*

The maritime activity at the Port of Everett marine terminals supports revenue for the directly dependent firms providing services to the vessels and cargo calling the Port. For example, revenue is received by surface transportation firms (both railroads and trucks) as a result of moving export cargo to the marine terminals and distributing the imported commodities inland after receipt at the terminals. The firms in the maritime service sector receive revenue from arranging for transportation services, cargo handling, and providing services to vessels in port. Ship repair yards and marine construction firms receive revenue by providing repair services to vessels and new construction and repair work at the marine terminals. The Port of Everett receives revenue from leases at the terminals it owns. In addition, revenue is received by shippers/consignees from the sales of cargo shipped or received via Everett marine cargo facilities and from the sales of products made with raw materials received through the Port. Since this chapter is concerned with the revenue supported from providing maritime services, the shipper/consignee revenue (i.e., the value of the cargo shipped or received through the Port) will be excluded from the remaining discussion. Similarly, steamship lines revenue from the ocean linehaul portion of the cargo movements is excluded from the revenue impact, since very few vessels calling the Port are U.S. flag vessels, and it is not likely that a large portion of the revenue from ocean transportation remains in the local or even national economy.

The revenue supported by port activity consists of many components. For example, gross revenue is used to pay employee salaries and taxes, it is distributed to stockholders, and it is used for the purchases of equipment and maintenance services. Of these components, only three can be isolated geographically with any degree of accuracy. The personal income component of revenue can be traced to geographic locations based on the residence of those receiving the income. The local purchases by firms dependent upon maritime activity at the Port of Everett terminals are identified through the interviews and used to estimate the indirect job impacts. Finally, state and local taxes paid by individuals and businesses can be traced to a geographic location based on the residency of the individuals directly employed and the location of the firms dependent on maritime activity. The balance of the revenue is distributed in the form of non-local payments to firms providing goods and services, for the distribution

of company profits to shareholders and to payment of federal taxes. Many of these firms and owners are located outside of Washington State, and, thus, it is difficult to trace the ultimate location of the distributed revenue (other than personal income, taxes and local purchases).

2.1 Revenue Impact

In calendar year 2014, maritime activity and industrial properties at the Port of Everett supported **\$4.2 billion** of total revenue from the provision of business services in the state of Washington. This does not include the value of cargo moved via the Port by the dependent shippers/consignees and key users. However, the local expenditures of these firms are included since if these firms were to leave the area, the local purchases would cease, and the revenue supported by the lines of business that are dependent upon the use of the Port of Everett would be lost.

2.2 Personal Income Impact

As described earlier, the personal income received by those directly dependent upon port activity is one of the components of revenue that can be traced to the Everett area. The income impact is estimated by multiplying the average annual earnings of each port participant, i.e., railroad employees, truckers, steamship agents, freight forwarders, bankers, insurance agents, etc., by the corresponding number of jobs in each category. The individual annual earnings in each category multiplied by the corresponding job impact resulted in \$1.1 billion in personal income. This equates to an average annual salary of about \$89,101 for direct jobs supported by Port of Everett cargo and property activity.

Based on data developed by the U.S. Bureau of Economic Analysis⁴, it is assumed that for every one dollar earned by Everett area residents as a result of jobs directly supported by cargo activity and the related aircraft manufacturing activity, an additional \$2.20 of income would be created as a result of re-spending the direct income for purchases of goods and services in the state of Washington. Applying this multiplier to the direct income impact, the re-spending supported an additional \$2.5 billion of personal income and consumption expenditures in business and service providers located throughout the state. This additional re-spending of the direct income supports the induced job impact, described in the previous chapter.

The indirect job holders received \$117.4 million of personal wages and salaries. Combining the direct, induced and indirect income impacts, maritime cargo activity and non-maritime tenants at the Port of Everett supported \$3.8 billion of total direct, induced, indirect wages and salaries and consumption expenditures in the state of Washington.

⁴U.S. Department of Commerce, Bureau of Economic Analysis, RIMS II.

2.3 Local Purchases

The firms directly dependent upon the maritime activity at the Port of Everett made \$526.3 million of purchases in the state of Washington. These purchases were for maintenance and repair services, utilities, communications services, office products, parts and equipment, fuel, etc. The \$526.3 million of purchases supported the 3,026 indirect jobs described in the previous chapter.

2.4 Tax Impacts

State and local tax impacts are based on state and local tax burdens for the state of Washington, which are developed from data provided by the Tax Foundation⁵. The tax burdens are the *total* state and local taxes collected divided by total state income. Maritime activity at Port of Everett and real estate tenants supported \$362 million of state and local taxes, of which about \$220.8 million was collected at the state level, and the balance at the local level.

⁵The Tax Foundation is an educational organization formed in 1937 to provide American citizens with a better understanding of the tax system and the effects of tax policy (www.taxfoundation.org).

III. THE ECONOMIC IMPACT OF RECREATIONAL BOATING AT THE PORT OF EVERETT MARINA & WATERFRONT PLACE

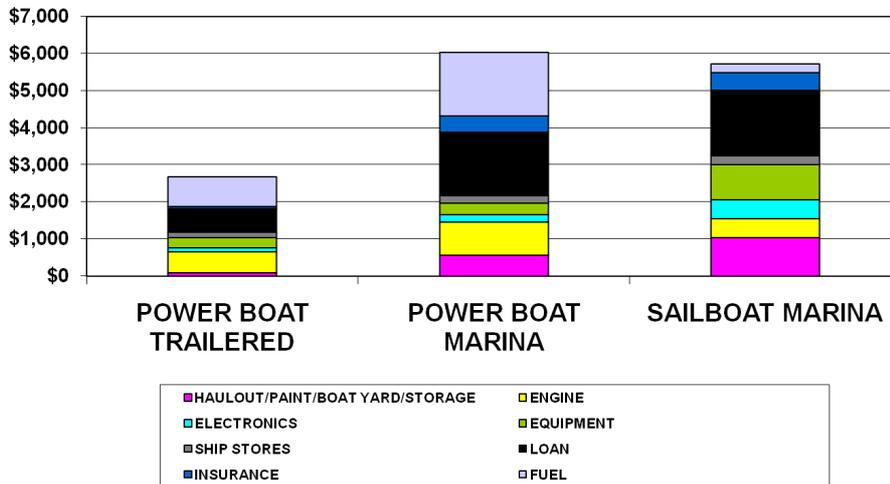
The Port of Everett owns and operates a 2,300 slip marina (permanent and guest moorage), which creates substantial economic impacts in the Everett regional economy. The impacts created by the recreational boating activity include the impacts supported by the vessels moored at the marina, as well as the impacts of transient boats that temporarily use the marina. To estimate the impacts, Martin Associates developed a profile and inventory of recreational boats by type moored at the Everett Marina. In addition to the recreational boats that are moored, there are a large number of transient boats that tie up at the marina and the passengers typically go ashore for eating, shopping and entertainment. In 2014, there were 1,876 recreational boats moored at the Port of Everett marina, including boats in upland and trailered storage. The Port of Everett marina accommodated 6,024 transient vessels, each spending an average of two nights at the marina. An additional 36,047 boat launches from the Port of Everett were recorded in 2014. The Port of Everett marina also recorded 794 Travelift haul outs for vessel owners needing maintenance and repair and other boat work completed by service providers located at the Port of Everett.

To develop the impact data, Martin Associates conducted interviews with tenants at the marina, including yacht clubs, sailing schools, restaurants, and retail stores. The results of these surveys were used directly in estimating marina tenant impacts. Next, typical annual expenditures by type of moored boat and for transient boats were developed from published sources, including:

- Boating 2000: A Survey of Boater Spending In Maryland, University of Maryland Sea Grant Program
- Measuring the Values of Marinas, 2004, Recreational Marine Research Center, Michigan State University
- Interviews with Northwest Marine Trade Association
- Marine Manufacturers Association
- The Economic Impact of Michigan's Recreational Boating Industry, Michigan State University, Ed Mahoney
- Marine Operators Association of America
- Clean Vessel Act, Michigan Boating Survey, 1994-1995

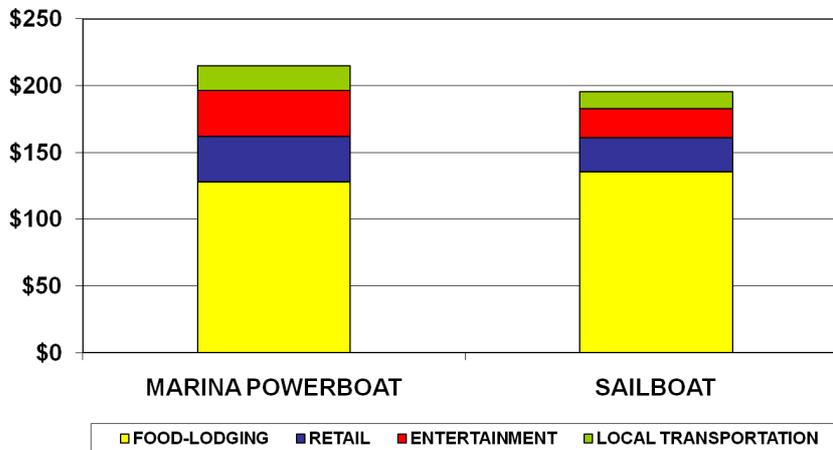
Based on interviews with the Northwest Marine Trade Association and the University of Maryland Sea Grant authors, it was concluded that the use of expenditure data per type of boat identified in Maryland would be representative of typical annual expenditures per boat in Puget Sound. Table 3 shows the breakdown of annual purchases by type of boat as developed from the "Boating 2000: A Survey of Boater Spending in Maryland", Maryland Sea Grant Program, University of Maryland and "Measuring the Value of Marinas", 2004. Table 4 shows the breakdown for local spending by transient boat operations.

Table 3
Annual Purchases by Recreational Boats Moored at the Port of Everett Marina



Source: Boating 2000: A Survey of Boater Spending in Maryland, University of Maryland Sea Grant Program – adjusted for current dollars

Table 4
Local Spending per Trip for Transient Boats



Source: Boating 2000: A Survey of Boater Spending in Maryland, University of Maryland Sea Grant Program – adjusted for current dollars

These annual purchases per boat are multiplied by the number of boats in each category at the marina. The annual purchases by type of boat at the Port’s marina are then converted into direct jobs using survey data from suppliers and marina support services firms interviewed by Martin Associates.

The local purchases per trip for transient calls at each marina are converted into jobs, income and revenue impacts using a visitor’s industry model developed for Everett/Seattle/Tacoma MSA.

Indirect impacts are developed from local purchases data supplied by support services providers including equipment suppliers and repair firms.

Table 5
Economic Impact of the Port of Everett Marina & Waterfront Place, 2014

PORT OF EVERETT	MARINA and WATERFRONT PLACE
Jobs	
Direct	707
Induced	526
Indirect	<u>520</u>
Total Jobs	1,753
Personal Income (\$1,000)	
Direct	\$29,860
Induced	\$64,337
Indirect	<u>\$24,510</u>
Total	\$118,707
Business Revenue (\$1,000)	\$80,328
Local Purchases (\$1,000)	\$57,076
State and Local Taxes (\$1,000)	\$11,158

In 2014, the recreational boating activity at the Port of Everett Marina and Waterfront Place tenants supported the following economic impacts.

- 707 direct jobs were created by recreational boating and Waterfront Place tenant activity at the Port of Everett.

The 2014 Economic Impact of the Port of Everett

- As a result of purchases by these 707 direct jobs, 526 induced jobs were supported in the local economy.
- As the result of \$57 million of local purchases by the firms dependent upon recreational boating and Waterfront Place tenant activity at the Port of Everett, 520 indirect jobs were supported in the local economy.
- The 707 direct jobs holders received \$29.8 million of direct wages and salaries. As the result of the re-spending impact, an additional \$64.3 million of personal income and local consumption expenditures were supported. The indirect job holders received \$24.5 million of indirect wages and salaries.
- The marina and Waterfront Place operations supported \$80.3 million of business revenue excluding the sale of boats.
- \$11.2 million of state and local taxes were supported by the Port of Everett marina and Waterfront Place tenant activity.

IV. COMPARISON TO 2011 IMPACTS

1. TOTAL CHANGES 2011-2014

Martin Associates was retained by the Port of Everett to conduct their Economic Impact Study in 2011 and as a result, the level of impacts supported by Port activities can be compared over time. While the methodology to measure the economic impacts has remained the same since 2011, the personal income multiplier used to derive local consumption, re-spending and induced employment has changed. There has also been a significant change in the indirect employment and income multipliers. Table 6 shows the total Port of Everett impacts in both 2011 and 2014.

Table 6
Summary of the Total Economic Impacts from the Port of Everett, Maritime Cargo, Water Front Place and Marina Operations, 2011 and 2014

PORT OF EVERETT	2014 TOTAL IMPACTS	2011 TOTAL IMPACTS	TOTAL CHANGE
Jobs			
Direct	13,813	13,778	35
Induced	17,770	16,210	1,560
Indirect	<u>3,546</u>	<u>5,009</u>	<u>-1,463</u>
Total Jobs	35,130	34,997	133
Personal Income (\$1,000)			
Direct	\$1,197,629	\$1,137,057	\$60,572
Induced	\$2,631,092	\$1,854,924	\$776,168
Indirect	<u>\$141,882</u>	<u>\$145,183</u>	<u>-\$3,301</u>
Total	\$3,970,603	\$3,137,164	\$833,439
Business Revenue (\$1,000)	\$4,331,284	\$4,141,531	\$189,753
Local Purchases (\$1,000)	\$583,413	\$678,062	-\$94,649
State and Local Taxes (\$1,000)	\$373,237	\$279,207	\$94,030

Total jobs increased by 133 from 2011 to 2014. Direct jobs increased by 35 over this time, while induced jobs, which are driven by the purchases of the direct job holders, increased by 1,560. However, indirect jobs decreased by 1,463 jobs over the same period. This is a result of increased productivity reflected in the decline in the ratio of employees per dollar of revenue earned by companies supporting the firms that employ the direct job holders. This is consistent with the findings of Economic Impact studies conducted by Martin Associates around the country since the economic downturn of 2008. While many firms are beginning to reclaim business lost during the recession, in many cases they have done so without rehiring to pre-recession levels.

Total wages, business revenue, and state and local taxes supported by Port activity have all

increased over the three year period from 2011 to 2014. Local purchases, however, decreased over the same period. The decrease in local purchases is associated with local purchases Boeing made in 2011 to develop the KC-46 tanker line. The average salary for total port activity direct job holders has increased from \$82,526 to \$86,703.

The following sections of this chapter will discuss the changes to each of the Port of Everett’s lines of business.

2. CHANGES TO CARGO AND INDUSTRIAL PROPERTY IMPACTS

Between 2011 and 2014, the total number of jobs supported by Port of Everett marine cargo and industrial tenants declined by 934. Direct jobs decreased by 508 jobs, however, non-maritime Waterfront Place tenants were moved from marine cargo impacts in 2011 to marina and Waterfront Place tenants in 2014. The shift was to keep impacts consistent with the Port of Everett’s lines of business. Induced employment increased by 1,116, while indirect jobs decreased by 1,542 jobs. The overall gains were driven by growth in cargo from 163,480 tons in 2011 to 449,120 tons in 2014. Trucking jobs and jobs with ILWU and terminal employment showed the largest increase from 2011 to 2014. Besides the shift of non-maritime tenant jobs from cargo impacts to marina and Waterfront Place impacts, jobs with construction and shipyards saw the greatest decrease in direct job impacts. The decrease with construction and shipyards is due to a drop in capital expenditures from \$14.8 million in 2011 to \$9.4 million in 2014. Table 7 compares the total impacts from 2014 against those from 2011.

**Table 7
Total Economic Impacts supported by Port of Everett’s Maritime Cargo and Industrial Property Tenants, 2011 and 2014**

PORT OF EVERETT	2014 MARINE CARGO and INDUSTRIAL PROPERTY	2011 MARINE CARGO and INDUSTRIAL PROPERTY	CHANGE MARINE CARGO and INDUSTRIAL PROPERTY
Jobs			
Direct	13,106	13,614	-508
Induced	17,244	16,128	1,116
Indirect	<u>3,026</u>	<u>4,568</u>	<u>-1,542</u>
Total Jobs	33,376	34,310	-934
Personal Income (\$1,000)			
Direct	\$1,167,769	\$1,130,430	\$37,339
Induced	\$2,566,756	\$1,849,384	\$717,372
Indirect	<u>\$117,372</u>	<u>\$126,607</u>	<u>-\$9,235</u>
Total	\$3,851,896	\$3,106,421	\$745,475
Business Revenue (\$1,000)	\$4,250,956	\$4,113,587	\$137,369
Local Purchases (\$1,000)	\$526,337	\$637,946	-\$111,609
State and Local Taxes (\$1,000)	\$362,078	\$276,471	\$85,607

3. MARINA AND WATERFRONT PLACE IMPACT COMPARISONS

The economic impact of marina and Waterfront Place tenant activity at the Port of Everett increased from 2011 to 2014. This represents the shift of including the Waterfront Place tenants with Port of Everett Marina impacts from the marine cargo and industrial property impacts, where they were included in the 2011 impact study. Table 8 presents a comparison of the impacts of the Port of Everett's Marina Activity from 2011 to 2014.

**Table 8
Impacts of Port of Everett's Marina Activity, 2011 and 2014**

PORT OF EVERETT	2014 MARINA and WATERFRONT PLACE	2011 MARINA and WATERFRONT PLACE	CHANGE MARINA and WATERFRONT PLACE
Jobs			
Direct	707	164	543
Induced	526	82	444
Indirect	<u>520</u>	<u>441</u>	<u>79</u>
Total Jobs	1,753	687	1,066
Personal Income (\$1,000)			
Direct	\$29,860	\$6,627	\$23,233
Induced	\$64,337	\$5,540	\$58,797
Indirect	<u>\$24,510</u>	<u>\$18,576</u>	<u>\$5,934</u>
Total	\$118,707	\$30,743	\$87,964
Business Revenue (\$1,000)	\$80,328	\$27,944	\$52,384
Local Purchases (\$1,000)	\$57,076	\$40,116	\$16,960
State and Local Taxes (\$1,000)	\$11,158	\$2,736	\$8,422