



# ECONOMIC IMPACT ANALYSIS

# THE LOCAL AND REGIONAL IMPACTS OF THE PORT OF LONGVIEW



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# EXECUTIVE SUMMARY

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The marine terminals owned by the Port of Longview, located on the Columbia River, handle bulk agriculture products, bulk chemicals, bulk minerals, logs, steel products, wind energy and general cargoes. In calendar year 2023, 6.04 million tons of cargo moved via these terminals and were produced and consumed by exporters and importers located within the metropolitan region, the states of Washington and Oregon, as well as throughout the Pacific Northwest and the United States. It is the purpose of this study to quantify the economic impacts generated by the cargo and vessel activity at these marine terminals.

**In calendar year 2023, 13,482 jobs in the Longview region and the Pacific Northwest were in some way related to maritime activity at the Port of Longview marine terminals. Of the 13,482 jobs:**

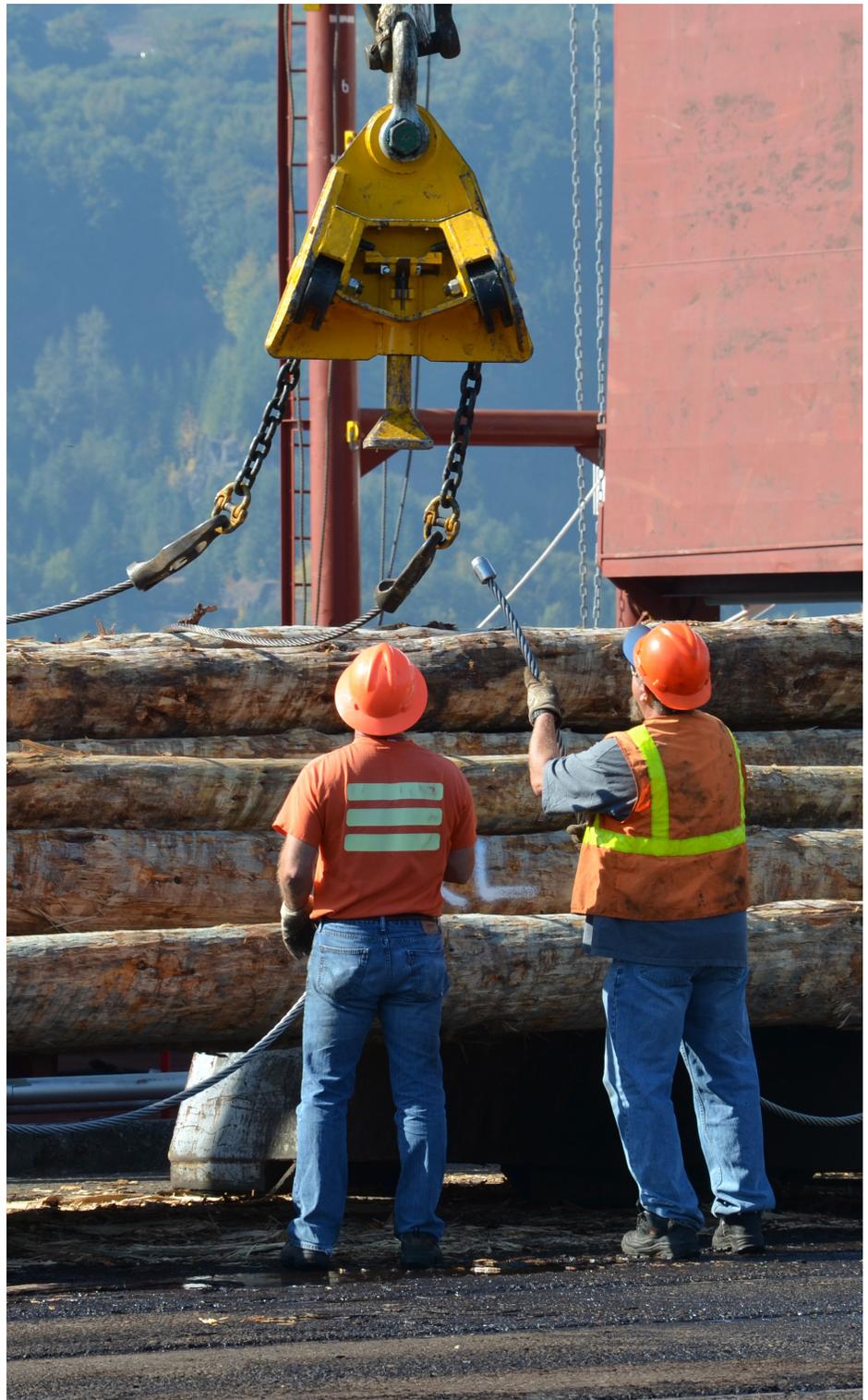
- 1,247 are **direct** jobs, in that these jobs are generated by activities at the Port, and if such activities should cease, these jobs would be discontinued over the short term. It is these jobs that are most directly dependent upon the vessel and cargo activity at the Port of Longview. These jobs are with the International Longshore and Warehouse Union, terminal operators, stevedores, trucking firms, railroads, steamship agents, freight forwarders and customhouse brokers, federal and state government agencies, towing companies, pilot organizations, and marine construction companies. Nearly sixty-five percent of these jobs are held by residents of Washington State. Of the sixty-five percent of Washington State residents, roughly eighty percent are residents of Cowlitz County.



- 2,231 are **induced** jobs, or those jobs supporting the local purchases made by the 1,247 individuals holding the direct jobs due to port activity. Should the direct jobs be lost from the economy, the induced jobs supported by the purchases of the direct job holders would also be lost. These jobs are with local grocery stores, retail outlets, restaurants, transportation services, local government services, schools, hospitals, etc.

- The firms dependent upon the marine activity at the Port of Longview made \$107.2 million of local purchases for office supplies, equipment, utilities, communications, maintenance and repair services, transportation services, professional services, and goods and services. These purchases supported 1,811 **indirect** jobs in the regional economy.

- In addition to the direct, induced and indirect job impacts, 8,193 regional and national jobs are related due to cargo exported and imported over Port of Longview marine terminals. These jobs are considered to be **related** to activities at the Port, but the degree of dependence on the Port is difficult to estimate and should not be considered as dependent on the Port as are the direct, induced and indirect jobs. If the Port of Longview were not available to these organizations, they would suffer an economic penalty over the longer term. Such a penalty would vary from a loss of employment opportunities in some cases to an increase in total transportation costs in other cases, which could, in turn, result in employment reductions.





**In 2023, marine cargo activity at the Port of Longview generated a total of \$2.6 billion of total economic activity in the region.**

- Of the \$2.6 billion, \$381.1 million is the direct business revenue received by the firms directly dependent upon the Port and providing maritime services and inland transportation services to the cargo handled at the marine terminals and the vessels calling the Port; \$270.2 million of re-spending and local consumption impact; and the remaining \$2.0 billion represents the value of the output to the Washington/Oregon region that is created due to the cargo moving via the Port of Longview. This includes the value added at each stage of producing an export cargo, as well as the value added at each stage of production for the firms using imported raw materials and intermediate products that flow via the marine terminals at the Port of Longview and are consumed by industries within the region.
- Marine activity created \$453.9 million of direct, induced and indirect personal wage and salary income and local consumption expenditures for Longview region residents. An additional \$341.3 million of direct, induced and indirect income was received by the related users of the Port of Longview. The 1,247 direct job holders received \$111.6 million of wage and salary income for an average salary of \$89,440.

**A total of \$48.7 million of state and local tax revenue was generated by maritime activity at the Port of Longview in calendar year 2023. In addition, \$18.9 million of state and local taxes were created due to the economic activity of the related users of the cargo moving via the Port of Longview.**

# I. OVERVIEW OF THE ANALYSIS AND SUMMARY OF RESULTS

Martin Associates was retained by the Port of Longview to measure the local and regional economic impacts generated by maritime activity at the Port of Longview. This study focuses on impacts generated by marine cargo handled at the marine facilities in the harbor area of the Port of Longview. It is to be emphasized that all cargo considered in this analysis is handled at facilities owned and leased by the Port of Longview. Impacts are estimated in terms of jobs, personal earnings, business revenue, and state and local taxes. The impacts are estimated for marine cargo activity in calendar year 2023. In addition to the baseline impact estimates, a computer model specific to the Port of Longview 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.

The methodology used in this analysis has been used by Martin Associates to estimate the economic impacts of seaport activity at most of the ports in the United States and Canada, including:

- Seattle
- Tacoma
- Longview
- Grays Harbor
- Vancouver, BC
- Vancouver, WA
- Portland, OR
- Los Angeles
- Long Beach
- San Diego
- San Francisco
- Oakland
- Sacramento
- Houston
- Texas City
- Freeport, TX
- Galveston
- Beaumont/Port Arthur, TX
- Victoria, TX
- Port Lavaca/Point Comfort, TX
- Corpus Christi
- Baton Rouge
- New Orleans
- Gulfport
- Port Everglades
- Canaveral
- Miami
- Jacksonville
- Tampa
- Palm Beach
- Wilmington, NC
- Morehead City, NC
- Baltimore
- Philadelphia
- Cleveland
- Ports of Indiana
- Wilmington, DE
- Boston
- Montreal
- Belledune
- Halifax
- 13 U.S. Great Lakes 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; and
- 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 Longview, contributes to the local, regional and national economies by providing employment and income to individuals, tax revenues to local and state governments, customs fees to the federal government 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, activity at a seaport (i.e., the handling of cargo and the servicing of vessels) initially creates business revenue to firms providing those cargo handling and vessel services. This revenue is in turn used for several purposes:

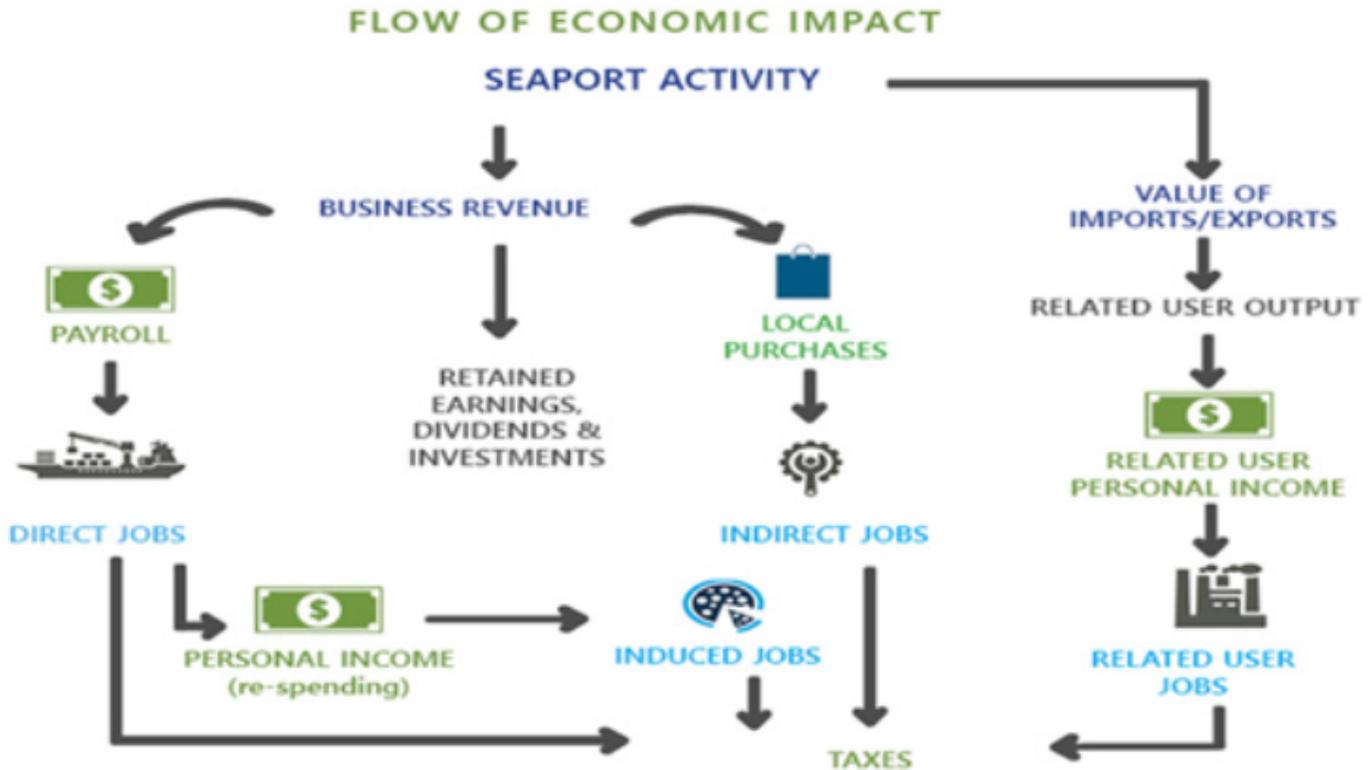
- To hire employees to provide the services;
- To pay stockholders dividends, retire debt, and invest;
- To buy goods from other firms; and
- To pay federal, state, and local taxes.

The hiring of employees generates 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.

# EXHIBIT 1

## Flows of Economic Activity Through the Economy



- **Employment Impact:** the number of full time equivalent jobs generated by activity at the Port of Longview terminals. This consists of jobs directly generated by port activity as well as induced jobs, or jobs created due to the purchase of goods and services by those individuals directly dependent upon port activity. In addition, indirect jobs, or those jobs generated in the regional economy due to the local purchases of goods and services by firms directly dependent upon maritime activity at the Port of Longview 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 generated by firms engaged in handling and transporting cargo through the Port of Longview. 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 generated by port activity. These are taxes paid by individuals and firms directly dependent upon the maritime activity.

The Port of Longview marine terminals generate economic activity in various business sectors of the state and local economy. The following economic sectors are involved in providing cargo and vessel handling services at the Port of Longview.

These are the:

- Surface Transportation Sector;
- Maritime Service Sector; and
- Marine Division of the Port of Longview.

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.

### 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. The railroads are most involved in moving bulk agriculture, minerals and chemicals to the Port.

Many local and national trucking firms serve the marine terminals at the Port of Longview, as do numerous individual owner operators. The trucking industry's major involvement is in moving steel, logs, wind energy components and general cargoes for local distribution.

Barge transportation is also a key component in moving cargo to and from the Port of Longview, and is included in the maritime services sector, which follows.



## 2. The Maritime 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 on the Columbia and Snake River System; and
- Federal, State, and Local Government Agencies

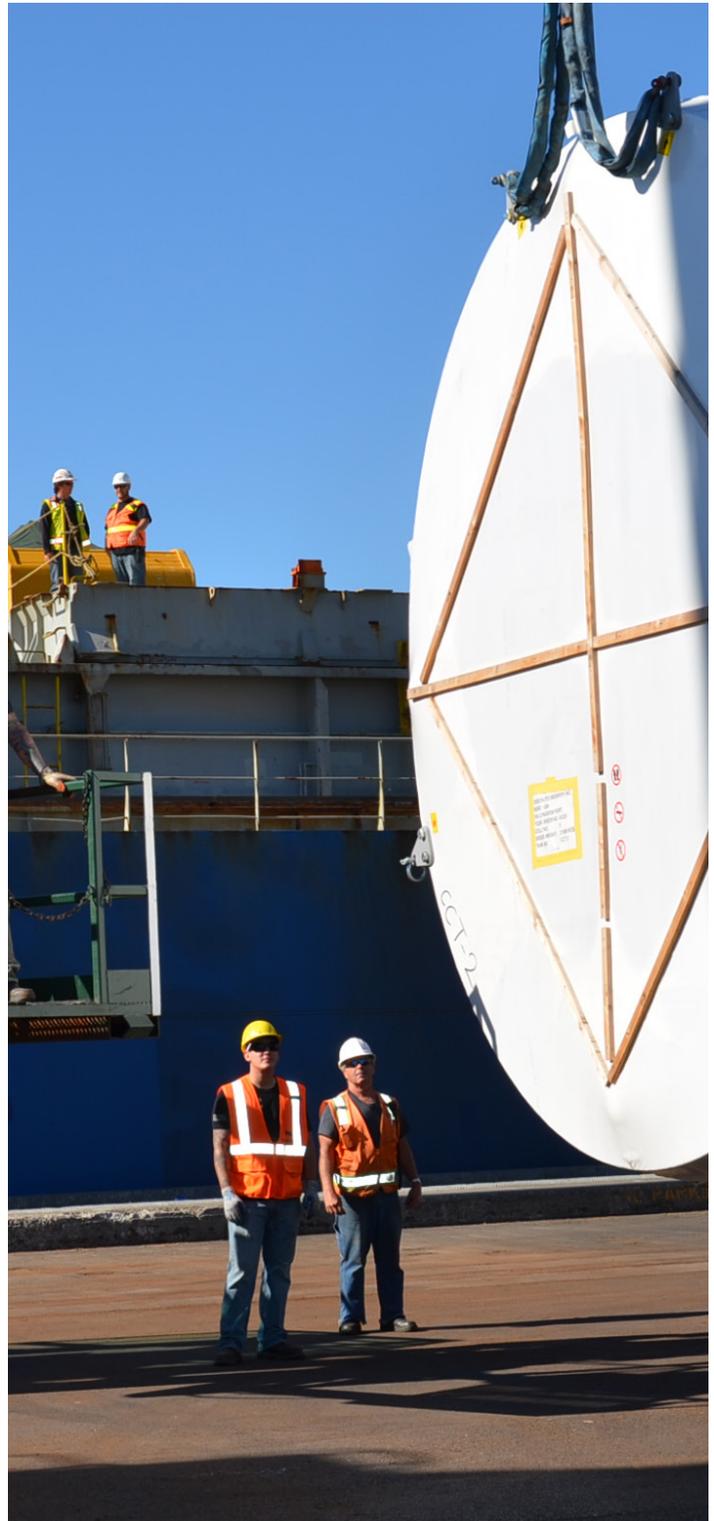
A brief description of the major participants in each of these five categories is provided below:

- **Cargo Marine Transportation:** Participants in this category are involved in arranging for inland and water transportation for export or import freight through the Port of Longview. 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. The steamship agents provide a number of services for the vessel as soon as it enters the Port; the agents arrange for pilot services and towing, for medical and dental care of the crew, and for ship supplies. The agents are also responsible for vessel documentation. In addition to the steamship agents arranging for vessel services, those providing the services include:
  - Chandlers supply the vessels with ship supplies (food, clothing, nautical equipment, etc.);
  - Pilots provide navigation services to ensure safe transit of vessels between the harbor entrance and docks, along the Columbia River transit, and across the Columbia River Bar;
  - Towing firms provide the tug service to guide the vessel to and from the berth;
  - Bunkering firms provide fuel to the vessels;
  - Marine surveyors inspect the vessels and the cargo;
  - Launch services provide transportation for the crew between land and vessel;
  - Shipyards/marine construction firms provide repairs, either emergency or scheduled, as well as marine pier construction and dredging. Also included in this category are one-time impacts generated by capital improvements of marine facilities;

- **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, 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
- **Barge Operators:** move grain and petroleum products along the Columbia, Willamette, and Snake River Systems between Longview and various locations in Washington, Oregon, and Idaho. Barge is very important in the movement of grain from Washington, Oregon, and Idaho to export elevators in Longview. About 10 percent of grain exports arrive by barge at the Port of Longview for export. Bunkers to vessels calling the Port of Longview berths are served by tug and barge operators on the Columbia River.
- **Government Agencies:** This service sector 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, Washington State Grain Inspection, 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.

### 3. Port of Longview

The Port of Longview includes those individuals employed by the Port whose purpose is to oversee port activity.



## 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 to how to develop the land and utilize the resources in the most efficient manner. Various types of facility configurations are associated with different commodities. For example, logs require a large area for storage, while certain types of dry bulk cargoes require a direct rail car to terminal loading.

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 facilities at the Port of Longview:

### BULK AGRICULTURE PRODUCTS:



CORN



SOYBEANS



WHEAT



SOYA MEAL

### LOGS



### BULK CHEMICALS



CALCINED PETROLEUM COKE

### STEEL & SCRAP



### BULK MINERALS



POTASH



SODA ASH



IRON OXIDE  
FINES

### WIND ENERGY



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 marine construction and the government sectors.

### 3. DATA COLLECTION

This Economic Impact Study of the Port of Longview is based on a telephone survey of members of each of the economic sectors. Participants were identified from Merchants Exchange of Portland, Oregon, internal Port of Longview tenant lists, and internal data bases maintained by Martin Associates. Telephone interviews were used to achieve a 92 percent response rate in all sectors. In addition to data collected from telephone interviews, 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; and
- 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, 2020/2021”.

This model has been 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 facility development.



## 4. IMPACT SUMMARY

The resulting economic impacts are printed in Table 1.

**TABLE 1**  
**Summary of Economic Impacts Generated by Port Activity in 2023**

	<b>ECONOMIC IMPACTS</b>
<b>JOBS</b>	
DIRECT	1,247
INDUCED	2,231
INDIRECT	1,811
<b>TOTAL</b>	<b>5,289</b>
<b>PERSONAL INCOME / LOCAL CONSUMPTION (\$1,000)</b>	
DIRECT	\$111,550
RE-SPENDING / LOCAL CONSUMPTION	\$270,220
INDIRECT	\$72,171
<b>TOTAL</b>	<b>\$453,941</b>
<b>BUSINESS REVENUE (\$1,000)</b>	<b>\$381,125</b>
<b>STATE AND LOCAL TAXES (\$1,000)</b>	<b>\$48,718</b>
<b>LOCAL PURCHASES (\$1,000)</b>	<b>\$107,195</b>
<b>RELATED USER IMPACTS</b>	
USER JOBS	8,193
TOTAL VALUE OF OUTPUT (\$1,000)	\$2,014,193
USER INCOME (\$1,000)	\$341,321
USER STATE / LOCAL TAXES (\$1,000)	\$18,928

\*Totals may not add due to rounding

# II. EMPLOYMENT IMPACTS

In this chapter, the employment generated by maritime activity at the Port of Longview marine terminals is documented. The chapter is organized as follows:

- First, the total employment that is in some way influenced by the activities at the marine terminals is estimated;
- Second, the subset of total employment that is judged to be totally dependent on maritime activity is analyzed in the following ways:
  - Direct jobs are estimated in terms of key economic sectors, e.g., surface transportation sector;
  - Direct jobs are estimated for each of the key commodities/commodity groups;
- Third, the direct jobs are estimated by place of residence;
- Fourth, induced jobs generated by local purchases made by those directly employed as a result of port activity are described;

- Fifth, indirect jobs created by local purchases by the firms directly dependent on maritime activity at the Port's terminals are defined;

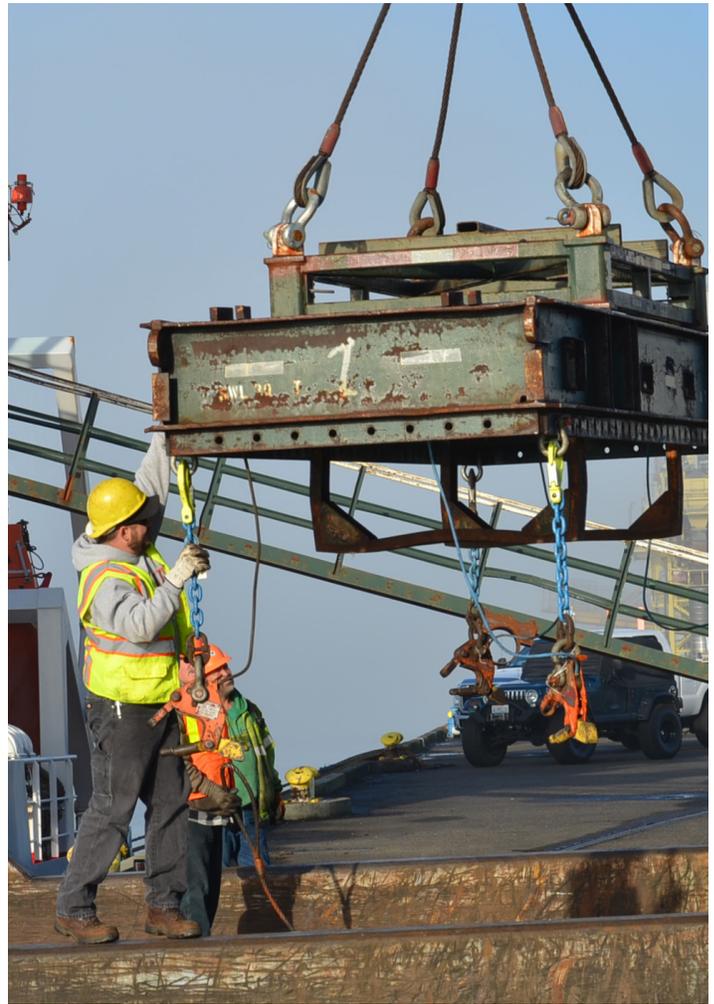
Finally, jobs related by the cargo activity handled by the Port's marine terminals are discussed. The impacts presented in this chapter are for the calendar year 2018.

## 1. TOTAL EMPLOYMENT IMPACT

It is estimated 13,482 jobs are influenced by cargo and vessel activity at the Port of Longview marine terminals.

- 1,247 direct jobs are generated by cargo moving over facilities at the Port of Longview. These jobs are classified as direct jobs and if activity at the Port of Longview were to cease, these jobs would be discontinued over the short term.
- 2,231 are employed by providing goods and services to the 1,247 individuals directly involved with port activity. Consequently, employment in this group is as directly dependent upon port activity as the first group.





- Firms directly dependent on maritime activity at the Port of Longview made \$107.2 million of local purchases for office supplies, parts and equipment, maintenance and repair services, business services, utilities, communications services and fuel. These local purchases supported 1,811 indirect jobs in the local economy.
- An additional 8,193 jobs are with firms that ship and receive cargo via the marine terminals at the Port of Longview. These jobs are considered to be related by activities at the Port, but the degree of dependence on the Port is difficult to estimate. The majority of these related jobs are related to grain, log, soda ash and potash exports. If the marine terminals were not available to these organizations, they would suffer an economic penalty over the longer term. Such a penalty would vary from a loss of employment opportunities in some cases, to an increase in total transportation costs in other cases, which could in turn, result in employment reductions.

These related jobs are with regional shippers, exporters, and importers using the marine terminals, as well as other ports and private terminals to ship log and grain products. Grain shippers can use other Columbia River and Puget Sound Ports, as well as the Gulf of Mexico Ports.

The next section of this chapter is dedicated to the 1,247 direct jobs generated by the Port of Longview.

## 2. DIRECT JOB IMPACTS

As a result of port activity, 1,247 full time jobs were directly created by activity at the marine terminals at the Port of Longview.

In this section the direct jobs are analyzed in terms of:

- Distribution by economic sector; and
- Distribution by commodity group

### 2.1 JOB IMPACTS BY SECTOR

**TABLE 2**  
**Employment Impacts by Job Category**

IMPACT CATEGORY	DIRECT JOBS
<b>SURFACE TRANSPORTATION</b>	
RAIL	263
TRUCK	123
<b>SUBTOTAL</b>	<b>386</b>
<b>MARITIME SERVICES</b>	
TERMINALS	218
ILWU	237
TOWING	50
PILOTS	24
AGENTS	15
SURVEYORS / CHANDLERS / MARITIME SERVICES / FORWARDERS	81
GOVERNMENT	72
MARITIME EQUIPMENT / CONSTRUCTION	59
BARGE	12
TENANTS	12
<b>SUBTOTAL</b>	<b>781</b>
<b>PORT AUTHORITY</b>	<b>80</b>
<b>TOTAL</b>	<b>1,247</b>

\*Totals may not add due to rounding

## 2.2 JOB IMPACTS BY COMMODITY

Most of the 1,247 jobs considered to be generated by port activity can be related to the handling of specific commodities or commodity groups. Employment with certain types of firms and organizations such as local, state and federal government agencies, and marine construction firms, is extremely difficult to assign to specific commodity groups, and if such an assignment is made, it is often done so arbitrarily. As a result, employment in these groups (which totaled 276 jobs) was not allocated to commodity groups.

Table 3 presents the direct employment impacts in terms of commodity/commodity group.

**TABLE 3**  
**Distribution of Direct Job Impact by Commodity**

<b>COMMODITIES</b>	<b>DIRECT JOBS</b>
<b>BULK AGRI-PRODUCTS</b>	233
<b>BULK CHEMICALS</b>	75
<b>BULK MINERALS</b>	187
<b>LOGS</b>	39
<b>STEEL / SCRAP</b>	363
<b>WIND ENERGY / GENERAL</b>	75
<b>NOT ALLOCATED</b>	276
<b>TOTAL</b>	<b>1,247</b>

This table indicates that in the year 2023, the handling of steel and scrap created the largest number of direct jobs, 363 jobs, while the movement of grain at the Port generated 233 direct jobs. Although, roughly five percent of total tonnage handled at the Port of Longview is steel and scrap, the Port has several tenants and customers in the area who use the Port of Longview to move steel products and scrap. These facilities hire quite a few individuals and also move additional steel products by rail and truck in and out of their facilities. In contrast, the majority of impacts generated by bulk commodities are concentrated with the terminal operations and surface transportation firms. The employment impacts for grain are concentrated with rail operations.

### 3. GEOGRAPHIC DISTRIBUTION OF DIRECT JOB IMPACTS

The distribution of the direct jobs by place of residence is a useful measure of the geographic importance of the Port to the local economy. Except for rail crew and rail headquarter employment, the direct jobs were identified by place of residence of those holding the direct jobs. The majority of the firms responding to the interviews provided Martin Associates with the zip code distribution of their workforce. Based on these zip codes, the direct jobs (excluding the rail crew and rail headquarters employment) were allocated to a city and county level of detail. Rail crew jobs and rail headquarter jobs are not included in the distribution of the jobs by place of residence, since rail crew jobs and headquarters jobs are, for the most part, held by non-residents of the Longview area. Also, the rail crew jobs were estimated from the average number of crew changes per rail linehaul required to move the rail cargo for each commodity group, and, as a result, it is not possible to trace the exact location of the residence of these crew jobs.

Table 4 shows the distribution of the direct jobs by place of residence. Roughly sixty-five percent of those directly employed (excluding rail crew and rail headquarter employment) due to port activity live in Washington State, while another nearly thirty-five percent reside in Oregon. Fifty-two percent live in Cowlitz County.

**TABLE 3**  
**Distribution of Direct**  
**Jobs\* by Place of**  
**Residence**

\*This excludes rail crew jobs and railroad headquarters jobs.

PLACE OF RESIDENCE	PERCENT	DIRECT JOBS
<b>WASHINGTON CITIES</b>		
LONGVIEW	31.55%	310
KELSO	9.49%	93
VANCOUVER	4.91%	48
CASTLE ROCK	5.37%	53
KALAMA	3.67%	36
<b>SUBTOTAL</b>	<b>54.99%</b>	<b>541</b>
<b>WASHINGTON COUNTIES</b>		
OTHER CLARK	2.66%	26
OTHER LEWIS	2.43%	24
OTHER COWLITZ	2.05%	20
<b>SUBTOTAL</b>	<b>7.14%</b>	<b>70</b>
<b>OREGON CITIES</b>		
PORTLAND	25.97%	255
RAINIER	1.69%	17
<b>SUBTOTAL</b>	<b>27.66%</b>	<b>272</b>
<b>OREGON COUNTIES</b>		
OTHER COLUMBIA	1.44%	14
<b>OTHER WA</b>	<b>2.52%</b>	<b>25</b>
<b>OTHER OR</b>	<b>4.17%</b>	<b>41</b>
<b>OTHER US</b>	<b>2.07%</b>	<b>20</b>
<b>TOTAL</b>	<b>100%</b>	<b>984</b>

#### 4. INDUCED JOBS

The regional purchases by the 1,247 direct job holders with the direct income earned from port activity creates additional jobs throughout the Longview area. In calendar year 2023, \$111.6 million was received by those 1,247 directly employed by activity at the Port of Longview marine terminals. As the result of the re-spending of a portion of this income for purchases in the Longview region, an additional 2,231 induced jobs were generated throughout the region. If maritime activity at the Port of Longview were to cease, these induced jobs would also be lost.

These induced jobs are estimated based on the current expenditure profile of residents in the Longview area, as estimated by the U.S. Bureau of Labor Statistics, “Consumer Expenditure Survey”. This survey indicates the distribution of consumer expenditures over key consumption categories for regional residents. The consumption categories are:

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

The estimated consumption expenditures generated 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 Longview area, 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 generated in the region. 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/Oregon employment in these key service industries to total state employment is developed. This ratio is then used with the direct and induced consumption jobs to estimate induced jobs with business/financial services, legal, educational and other social services.

#### 5. INDIRECT JOBS

The firms directly dependent upon the vessel and cargo activity at the Port of Longview made \$107.2 million of purchases from local suppliers of parts and equipment, business services, maintenance and repair services, communications, utilities, rent, office equipment, and fuel. These local purchases supported 1,811 local indirect jobs. If maritime activity at the Port of Longview 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. To estimate the indirect jobs, the local expenditures were used as inputs into a regional input-output model developed for the Longview / Vancouver/Portland region for Martin Associates by the U.S. Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II).

## 6. RELATED JOBS

Related jobs are jobs with users of the Port of Longview. These users include local manufacturers exporting and importing cargo; local construction firms importing steel products, and Pacific Northwest (PNW) logging companies and grain farmers exporting logs and grain through the Port. It is to be emphasized that these users are related to the Port of Longview marine terminals, in that if these facilities were not available the users could ship and receive cargo via other ports. In fact, the majority of these users currently use multiple ports for export and import.

To estimate the related user impact, the average value per ton of each commodity type was then estimated using U.S. Census Bureau, Foreign Trade Statistics. Employment to value of output coefficients for the export producing and import consuming industries related to the specific export and import cargoes were then computed from Bureau of Economic Analysis, Regional Input-Output Model for the Oregon/Washington region. The job coefficients corresponding to the commodities produced or consumed in the region were next multiplied by the local share of the cargo to estimate the related jobs with the cargo moving via the Port of Longview.

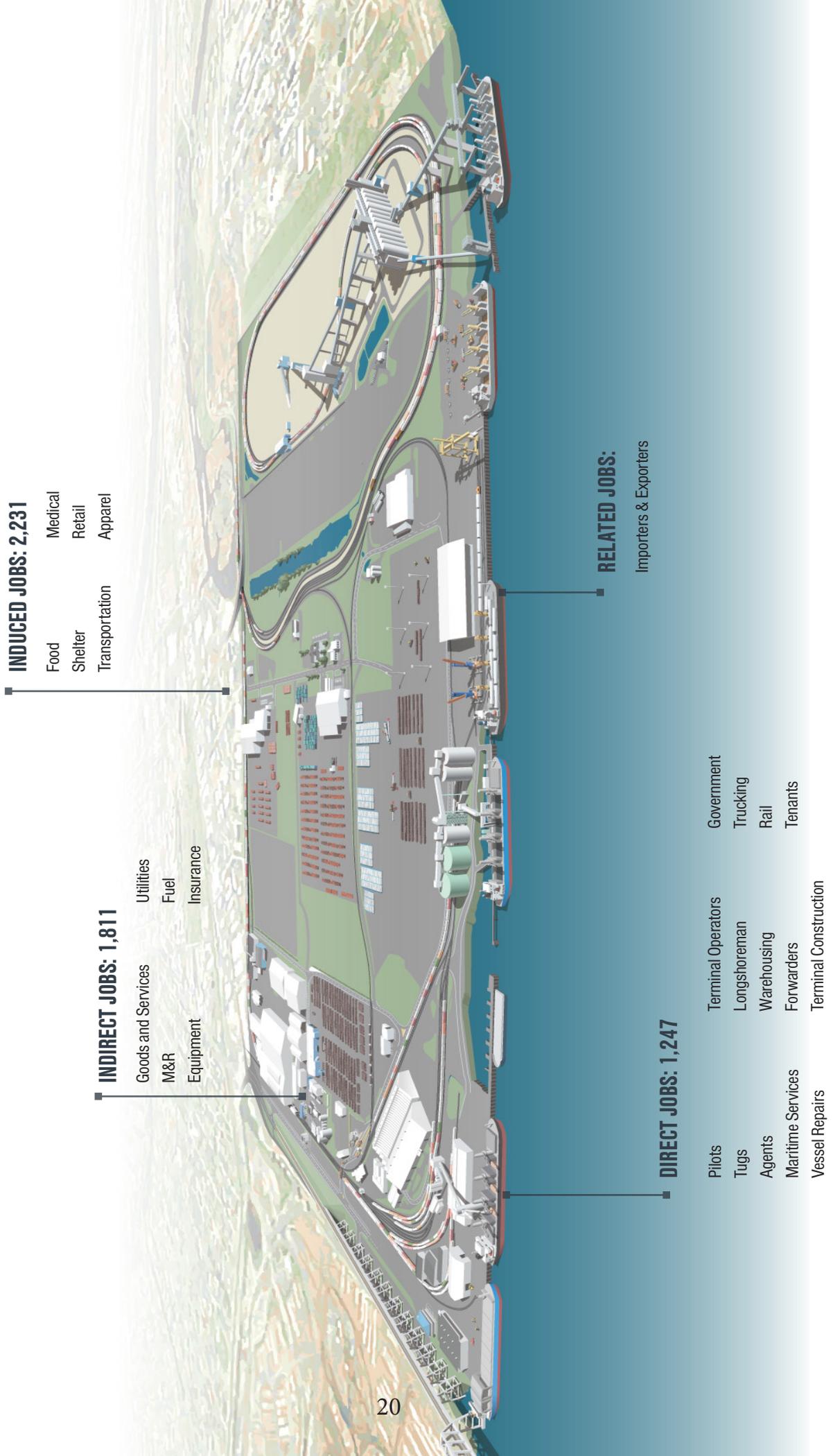
Using this methodology, it is estimated that 8,193 jobs with area exporters and importers are related to the cargo moving via the Port of Longview marine terminals. The majority of these jobs are related to the imported steel products, construction of wind farms with imported wind components, and exported grain and logs. \*

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\*The influenced jobs include the jobs throughout the state in the export producing or import consuming industry and also include the jobs with local industries needed to produce the export cargo and use the import cargo moved via the Port. The direct, induced and indirect jobs involved in transporting the cargo to and from the port as well as serving the cargo while in port are excluded from the influenced jobs to avoid double counting.

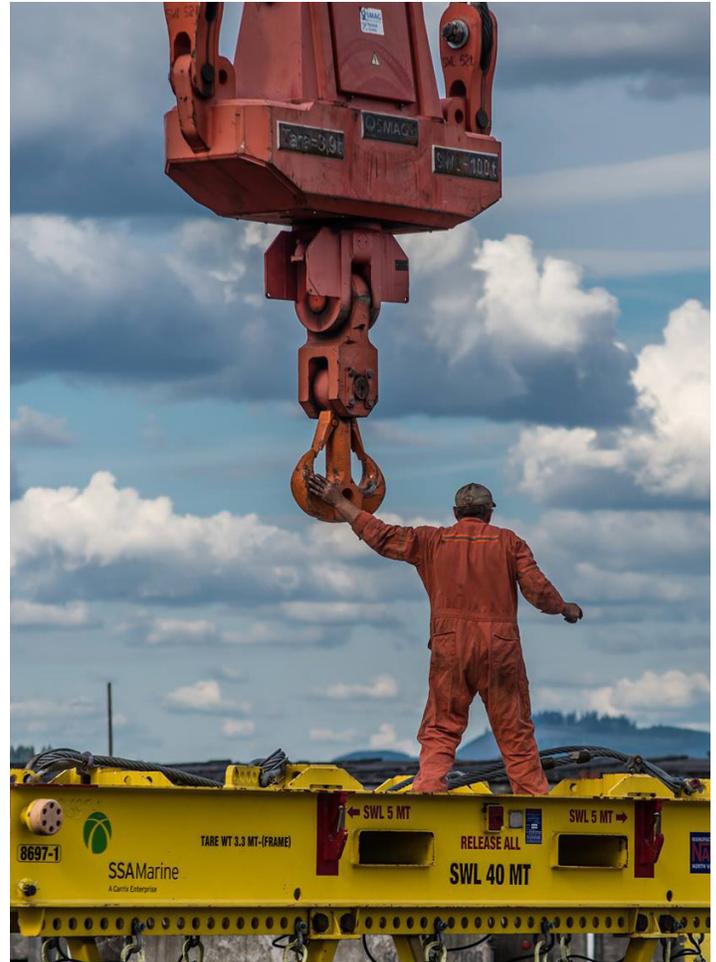


# 13,482 total jobs supported by the Port of Longview in 2023



# III. ECONOMIC VALUE, REVENUE, INCOME AND TAX IMPACTS

The movement of cargo via the Port of Longview marine terminals generates revenue for firms in each of the economic sectors. For example, revenue is received by surface transportation firms (both railroads and trucks) as a result of moving export cargo to the Port and distributing the imported commodities inland after receipt at the Port. The firms in the maritime service sector receive revenue from arranging for transportation services, cargo handling, providing services to vessels in port and repairs to vessels calling the Port. The Port of Longview receives revenue from leases at the terminals it owns, wharfage and dockage. In addition, revenue is received by shippers/consignees from the sales of cargo shipped or received via Longview marine cargo facilities and from the sales of products made with raw materials received through the Port. 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 American 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 generated 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 marine terminals at the Port of Longview 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 to the five sectors, for the distribution of company profits to shareholders and to payment of federal taxes. Many of these firms and owners are located outside of the Washington/Oregon region, and, thus, it is difficult to trace the ultimate location of the distributed revenue (other than personal income, taxes and local purchases).

The value of output created by users of the Port is attributed to the region consisting of the states of Washington and Oregon, and the local purchases from other firms within the region are also included in this user output measure, as defined by the in-state output coefficients (for the user industries) developed from the U.S. Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II).

### 1. REVENUE IMPACT - TOTAL ECONOMIC ACTIVITY

The revenue impact is a measure of the total economic activity in the state that is generated by the cargo moving via the Port of Longview. In 2023, marine cargo activity at the Port generated a total of \$2.6 billion of total economic activity in the region. Of the \$2.6 billion, \$381.1 million is the direct business revenue received by the firms directly dependent upon the Seaport, firms providing maritime services and inland transportation services to the cargo handled at the Seaport and the vessels calling the terminals. In addition, \$270.2 million of re-spending/local consumption expenditures were generated by the Seaport activity. The remaining \$2.0 billion represents the value of the output to the State that is created due to the cargo moving via the Seaport. This includes the value added at each stage of the supply chain associated with containerized cargo that flows via the Seaport and is consumed within the region.

The balance of the discussion focuses on the \$381.1 million of direct business revenue generated from the provision of services to the cargo and vessels handled at the Port of Longview. Table 5 presents the \$381.1 million revenue impact generated by impact category.

Firms in the surface transportation sector received \$221.6 million of revenue. Of this revenue, the railroads received \$197.9 million, primarily as the result of the movement of grain and bulk minerals and chemicals. The revenue generated by the surface transportation

sector is based on the relevant modal (rail or truck) rate for a commodity multiplied by the tonnage of that commodity moved to and from the Port by the specified mode. The share of each commodity transported by rail and truck was estimated from interviews with the terminal operators handling the respective commodities, as well as from steamship lines.

**TABLE 5**  
**Direct Revenue by Category**

<b>IMPACT CATEGORY</b>	<b>DIRECT REVENUE (\$1,000)</b>
<b>SURFACE TRANSPORTATION</b>	
RAIL	\$197,951
TRUCK	\$23,669
<b>SUBTOTAL</b>	<b>\$221,619</b>
<b>MARITIME SERVICES</b>	
TERMINALS	\$58,735
TOWING	\$4,344
PILOTS	\$4,525
AGENTS	\$579
SURVEYORS / CHANDLERS / MARITIME SERVICES	\$6,530
FORWARDERS	\$5,274
GOVERNMENT	n/a
MARITIME EQUIPMENT / CONSTRUCTION	\$17,783
BARGE	\$1,318
TENANTS	n/a
<b>SUBTOTAL</b>	<b>\$99,089</b>
<b>PORT AUTHORITY</b>	<b>\$60,417</b>
<b>TOTAL</b>	<b>\$381,125</b>

The relative modal shares were then applied to the port tonnage (or units) of the specific cargo. Average rail rates were obtained from the Burlington Northern/Santa Fe and the Union Pacific railroads, as well as from steamship lines. These rates were multiplied by the tonnage of each commodity carried by rail to estimate revenue accruing to railroads. The trucking revenue was based on interviews with terminal operators, steamship lines, and trucking firms.

Terminal operators received \$58.7 million of revenue from the handling of the cargo, including stevedoring charges as well as terminal charges. Roughly \$6.5 million was received by firms providing maritime services, including surveyors and ship chandlers.

Table 6 shows the revenue impact by commodity for cargo handled at the Port of Longview marine terminals. In terms of total revenue, bulk agriculture products generate the largest total revenue impact, followed by bulk minerals and bulk chemicals.

**TABLE 6**  
**Revenue Impacts by Commodity**

<b>COMMODITIES</b>	<b>DIRECT JOBS</b>
<b>BULK AGRI-PRODUCTS</b>	\$141,699
<b>BULK CHEMICALS</b>	\$34,686
<b>BULK MINERALS</b>	\$75,247
<b>LOGS</b>	\$676
<b>STEEL / SCRAP</b>	\$17,268
<b>WIND ENERGY / GENERAL</b>	\$26,819
<b>NOT ALLOCATED</b>	\$84,730
<b>TOTAL</b>	<b>\$381,125</b>

\*Totals may not add due to rounding

## 2. PERSONAL INCOME IMPACTS

In the previous section of this chapter, the total revenue generated by port activity was identified. 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 Longview region. 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 \$111.6 million in personal income.

Based on data developed by the U.S. Bureau of Economic Analysis, it is assumed that for every one dollar earned by Longview area residents as a result of jobs directly generated by port activity, an additional \$2.42 of income would be created as a result of re-spending the income for purchases of Longview region produced goods and services. This re-spending generated an additional \$270.2 million of local personal income and consumption expenditures with local business and service providers. This additional re-spending of the direct income generates the induced job impact, 2,231 jobs, described in the previous chapter.

The indirect jobholders received \$72.2 million of personal wages and salaries. Combining the direct, induced and indirect income impacts, maritime cargo activity at the Port's marine terminals created \$453.9 million of wages and salaries and local consumption expenditures.

The 8,193 jobs with the related users of the Port of Longview received \$341.3 million of wages and salaries.



### 3. LOCAL PURCHASES

The firms directly dependent upon the maritime activity at the Port of Longview terminals made \$107.2 million of local purchases. These local purchases were for maintenance and repair services, utilities, communications services, office products, parts and equipment, fuel, etc. The \$107.2 million of local purchases generated the 1,811 indirect jobs.

### 4. TAX IMPACTS

State and local tax impacts are based on state and local tax burdens for Washington and Oregon, which are developed from data provided by the Tax Foundation. The tax burdens are the total state and local taxes collected, divided by total state income.

The state and local taxes for which estimates have been developed include:

- State and local personal and corporate income tax;
- Insurance tax;
- Gift tax;
- State fuel tax;
- Municipal school district taxes; and
- Tri-Metropolitan Tax.

Maritime activity at the marine terminals at the Port of Longview generated \$48.7 million of state and local taxes. The state of Washington and counties and municipalities within the state received \$32.9 million of tax revenue, while the state of Oregon and local and county governments received about \$15.8 million of state and local taxes from activity at the Port of Longview marine terminals.

# IV. COMPARISONS WITH CALENDAR YEAR 2018 IMPACTS

The purpose of this chapter is to provide a comparison of calendar year (CY) 2023 economic impacts generated by the Port of Longview with the impacts generated by activity in 2018. Martin Associates conducted The Port of Longview’s first Economic Impact in 1991 using 1990 data. Since the 1991 study, the impacts were updated in 2012, 2018 and again in this current study. The methodology used by Martin Associates to measure the local and regional economic impacts generated by the Port of Longview in 2023 is, for the most part, identical to the methodology used to measure the direct and induced impacts generated by maritime activity at the Port of Longview in 1990, 2012 and 2018, with the exception that the indirect impacts and the value of output, income and taxes for related users were not estimated in the 1991 study.

## 1. COMPARISON OF TONNAGE

Table 7 shows the historical tonnage handled at the Port of Longview between 2011 and 2023. Between 2011 and 2023 the Port of Longview recorded a 9 percent compound annual growth rate. The previous economic impact study, conducted in 2018, was a record tonnage year for the Port of Longview reaching over 10.3 million tons.

**TABLE 7**  
**Historical Tonnage Handled at the Port of Longview**

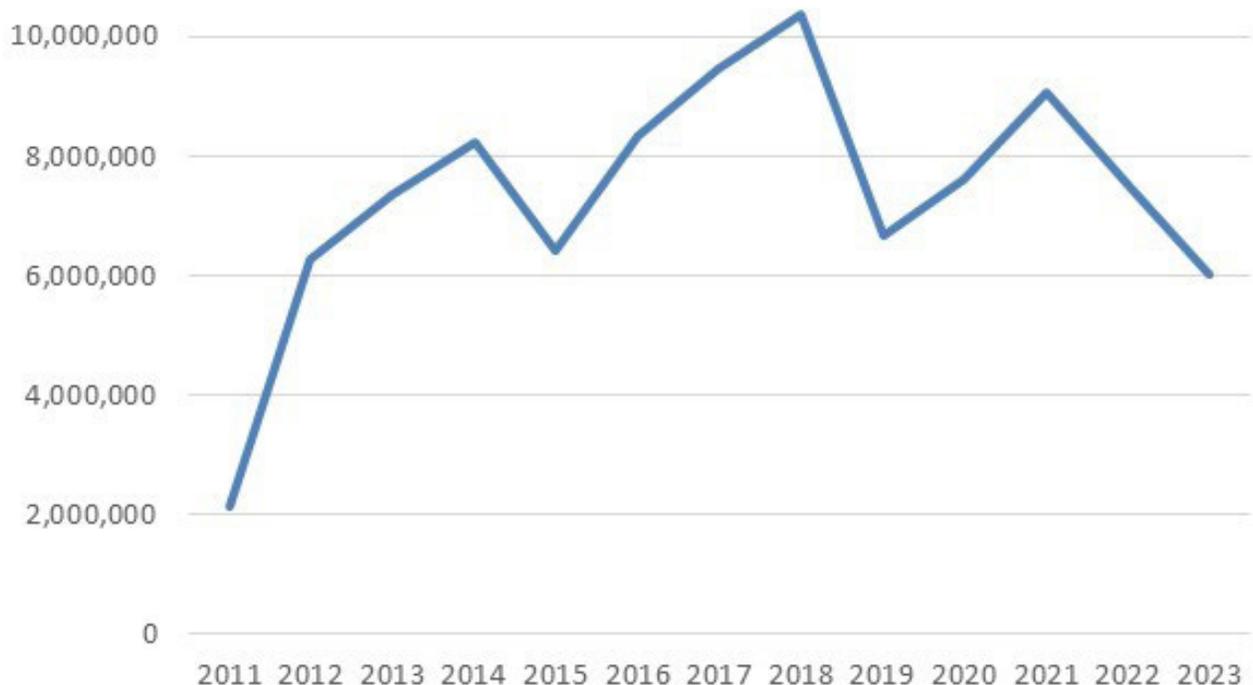
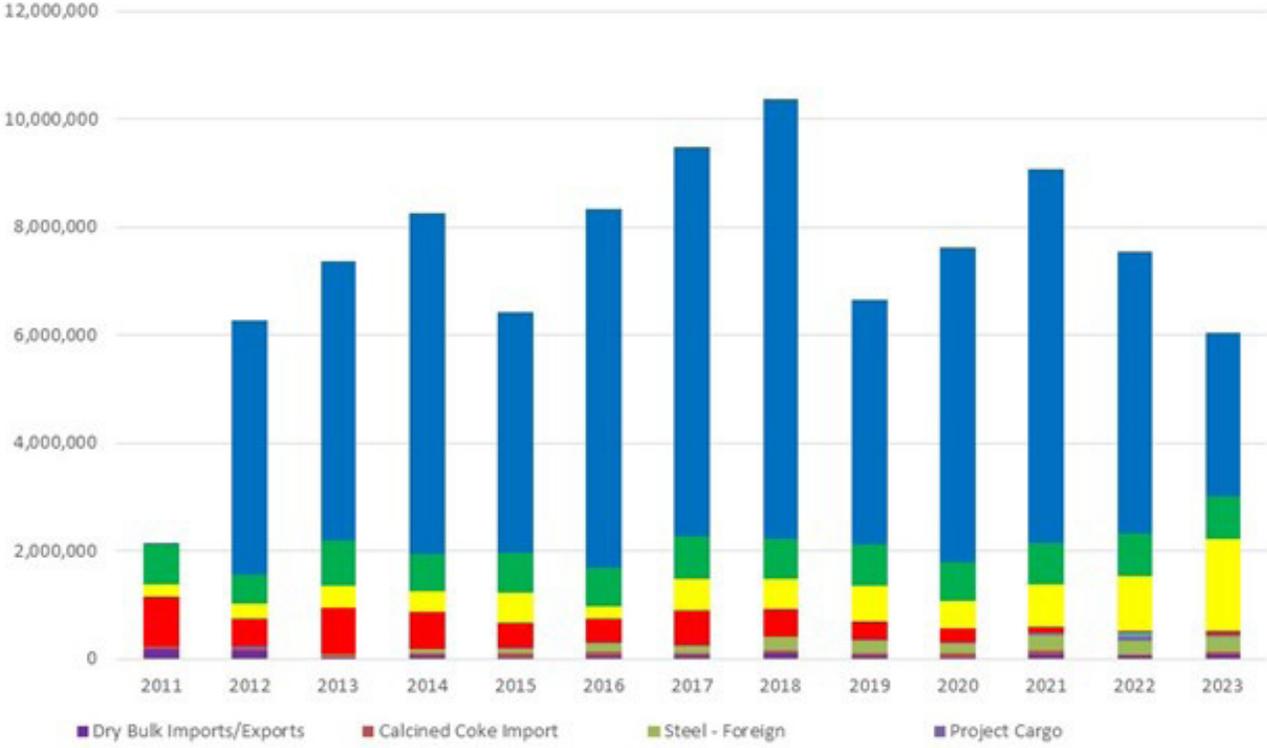


Table 8 illustrates the historical composition of commodities handled at the Port of Longview between 2011 and 2023, by business line. Shown in Table 8, historical tonnage has been driven by bulk agriculture exports at the EGT Terminal since 2012. Since the height of tonnage in 2018 the global demand for agricultural products has decreased. The decrease in global demand for grains is due to high global production and weaker demand from key buyers, such as China. In 2023 the Port saw growth in other commodities, in particular soda ash, potash, and wind energy components. The Port also experienced slight increases in coke exports, general cargo, and import foreign steel. The diverse composition of commodities handled at the Ports terminals has offset the loss in bulk agricultural products. In particular, wind energy components, project cargo and steel are more labor intensive compared to bulk commodities. These commodities also move by truck to and from the marine terminals, while bulk commodities, in particular agriculture commodities, move by rail and barge. Since trucks carry less tonnage per shipment than rail cars and barges, more labor is required to move the tonnage between inland destinations and the Port’s terminals.

While wheat, corn, grain sorghum, and rice exports have declined since 2018 at all Columbia River Ports, soybeans have shown growth. In 2023, Longview handled roughly 18 percent of soybean exports on the Columbia River. Kalama exported roughly 63 percent of soybean exports, while Vancouver handled the balance. In the past 5 years Portland elevators have historically handled minimal soybean exports (Source: USA Trade Online).

**TABLE 8**  
**Historical Composition of Commodities Handled at the Port of Longview by Business Line**



**1. COMPARISON OF TOTAL IMPACTS**

The change in the Port of Longview’s economic impact between 2018 and 2023 is illustrated in Table 9. As shown the number of direct jobs fell by 14 jobs, however, induced and indirect jobs generated by activity at the Port of



Longview increased by 558. Overall, total direct, induced and indirect jobs grew by 544 between 2018 and 2023. The direct job loss reflects the decrease in tonnage moving via the Port, falling from 10.4 million metric tons in 2018 to 6.04 million metric tons in 2023. Bulk agriculture products decreased the most over this time period, followed by log exports. Clay was not handled at the Port in 2023. Bulk chemical and mineral tonnage grew from 1.5 million tons in 2018 to 2.7 million tons in 2023. Coke exports grew slightly by 37,000 tons. Soda ash tonnage grew from 500 thousand tons to over 1.2 million tons and iron oxide fines grew roughly 5,000 tons in the same time period. Wind energy components nearly quintupled growing from 8,519 tons in 2018 to 40,488 tons in 2023. The number of vessels carrying wind components and calling Port of Longview marine terminals more than doubled from 5 in 2018 to 13 in 2023. Total vessel calls at the Port of Longview decreased from 291 to 188 over the same time period.

Direct personal income grew by \$17.3 million, highlighting the increase in the average direct salary of \$74,763 in 2018 to \$89,440 in 2023. Business revenue fell by \$110.1 million. The drop in business revenue is directly related to loss in tonnage, in particular the rail and barge revenue moving bulk agriculture products to the Port of Longview. Indirect jobs increased by 316 jobs, reflecting the increase in local purchases between 2018 and 2023. State and local taxes increased by \$14.6 million, reflecting the growth in total income from \$341.2 million to \$453.9 million. Related impact losses are directly associated with the loss in bulk agriculture products and logs. The tonnage loss reflects the Port of Longview's "sphere of influence" particularly with grain farmers and logging jobs between 2018 and 2023. In addition, the loss in output is associated with the decrease in 5.1 million tons of bulk agriculture products and 450 thousand tons of logs handled between 2018 and 2023.

**TABLE 9**  
**Comparison of Port of Longview Impacts**

<b>ECONOMIC IMPACT</b>	<b>CY 1990</b>	<b>CY 2012</b>	<b>CY 2018</b>	<b>CY 2023</b>	<b>2018 - 2023 CHANGE</b>
<b>JOBS</b>					
DIRECT	773	817	1,261	1,247	-14
INDUCED	543	1,241	1,989	2,231	242
INDIRECT	n/a	962	1,495	1,811	316
<b>TOTAL</b>	<b>1,315</b>	<b>3,019</b>	<b>4,745</b>	<b>5,289</b>	<b>544</b>
<b>PERSONAL INCOME / LOCAL CONSUMPTION (\$1,000)</b>					
DIRECT	\$25,800	\$52,466	\$94,283	\$111,550	\$17,267
RE-SPENDING / LOCAL CONSUMPTION	\$53,600	\$127,970	\$187,368	\$270,220	\$82,851
INDIRECT	n/a	\$38,322	\$59,581	\$72,171	\$12,590
<b>TOTAL</b>	<b>\$79,400</b>	<b>\$218,758</b>	<b>\$341,232</b>	<b>\$453,941</b>	<b>\$112,709</b>
<b>BUSINESS REVENUE (\$1,000)</b>	<b>\$97,400</b>	<b>\$315,941</b>	<b>\$491,213</b>	<b>\$381,125</b>	<b>-\$110,088</b>
<b>STATE AND LOCAL TAXES (\$1,000)</b>	<b>\$4,400</b>	<b>\$20,736</b>	<b>\$34,114</b>	<b>\$48,718</b>	<b>\$14,604</b>
<b>LOCAL PURCHASES (\$1,000)</b>	<b>n/a</b>	<b>\$56,919</b>	<b>\$88,495</b>	<b>\$107,195</b>	<b>\$18,700</b>
<b>RELATED USER IMPACTS</b>					
USER JOBS	5,209	9,100	14,458	8,193	-6,265
TOTAL VALUE OF OUTPUT (\$1,000)		\$1,358,998	\$2,167,195	\$2,014,193	-\$153,002
USER INCOME (\$1,000)		\$212,245	\$345,438	\$341,321	-\$4,117
USER STATE / LOCAL TAXES (\$1,000)		\$19,739	\$32,126	\$18,928	-\$13,198

Note: Totals may not add up exactly due to rounding. Indirect jobs and local purchases were not estimated in 1990, nor were the total value of output, user income and user state and local taxes.

### 3. COMPARISON OF DIRECT JOB IMPACTS

Table 10 shows the direct job impacts generated by job category. As previously mentioned, direct jobs decreased by 14 total jobs between 2018 and 2023, reflecting the loss of about 4.3 million metric total tons at the Port of Longview. The largest loss was with jobs associated with the railroads. The loss in railroads reflects the loss in bulk agriculture tonnage, as bulk commodities move primarily via rail. Further reflecting the loss in bulk agriculture

tonnage, barge jobs similarly decreased between 2018 and 2023. Roughly 90 percent of export agriculture products arrive at the Port of Longview via rail for export. The remaining 10 percent arrive at the Port via barge. Truck jobs increased between 2018 and 2023, reflecting the growth in steel, wind and general cargo commodities. These commodities are highly dependent on truck transportation. Increased ILWU jobs reflect the growth in handling labor intensive commodities such as steel, wind components and general cargo at the Port. Over the same time period total ILWU hours worked and the number of registered and working members increased. Combined tug assist and pilot jobs grew by 5 full time equivalent jobs reflecting the additional employment at a towing company and the percentage of vessels handled at Longview compared to other ports on the Columbia River. The Port of Longview port authority added 3 additional jobs from 2018 to 2023.

Maritime construction job growth is directly related to the increase in the capital expenditures by the Port of Longview from \$2.9 million in 2018 to \$16.7 million in 2023.

**TABLE 10**  
**Comparison of Direct Jobs by Job Category**

<b>DIRECT JOB IMPACT CATEGORY</b>	<b>CY 1990</b>	<b>CY 2012</b>	<b>CY 2018</b>	<b>CY 2023</b>	<b>CHANGE 2018 - 2023</b>
<b>SURFACE TRANSPORTATION</b>					
RAIL	27	243	397	263	-134
TRUCK	429	68	84	123	39
<b>SUBTOTAL</b>	<b>456</b>	<b>311</b>	<b>481</b>	<b>386</b>	<b>-95</b>
<b>MARITIME SERVICES</b>					
TERMINALS	17	162	205	218	13
ILWU	194	79	210	237	27
TOWING	21	34	47	50	3
PILOTS	1	9	22	24	2
AGENTS	7	12	16	15	-1
SURVEYORS / CHANDLERS / MARITIME SERVICES / FORWARDERS	27	60	74	81	7
GOVERNMENT	4	60	74	72	-2
MARITIME EQUIPMENT / CONSTRUCTION	n/a	20	18	59	41
BARGE	n/a	15	25	12	-13
TENANTS	n/a	n/a	12	12	0
<b>SUBTOTAL</b>	<b>271</b>	<b>452</b>	<b>703</b>	<b>781</b>	<b>78</b>
<b>PORT AUTHORITY</b>	<b>46</b>	<b>54</b>	<b>77</b>	<b>80</b>	<b>3</b>
<b>TOTAL</b>	<b>773</b>	<b>817</b>	<b>1,261</b>	<b>1,247</b>	<b>-14</b>

#### 4. CONCLUSION

The fact that the Port of Longview continues its importance, even with a loss of tonnage, in the local economy as a major source of job creation, particularly of direct jobs with an average annual salary of \$89,440, underscores the importance of the Port of Longview as a major catalyst in the greater Portland/Vancouver metropolitan region, the states of Washington and Oregon, as well as the Pacific Northwest and national economies. In order to sustain this growth as an economic engine, it is critical that the Port of Longview continues to invest in terminal, rail and highway access infrastructure to meet future demand, and to continue to attract tenants to stimulate further economic development in the region. New tenants will help diversify tonnage moving through the port and help maintain the overall economic impact and importance of the Port of Longview. This economic study suggests that the continued growth and investment in the Port will result in further job, income and tax growth for the greater Portland/Vancouver metropolitan region, the states of Washington and Oregon, as well as the Pacific Northwest.

