

The Economic Impact of the Jefferson County Marine Trades



Prepared by:

MARTIN ASSOCIATES

941 Wheatland Avenue, Suite 203

Lancaster, PA 17603

www.martinassoc.net



Prepared for:

PORT TOWNSEND MARINE TRADE

ASSOCIATION

P.O. Box 1214

Port Townsend, WA 98368

www.ptmta.org

June 6, 2018

TABLE OF CONTENTS

| | |
|---|-----------|
| I. INTRODUCTION AND OVERVIEW | 1 |
| 1. FLOW OF ECONOMIC IMPACTS OF THE MARITIME INDUSTRY CLUSTER | 3 |
| 1.1 <i>Business Revenue Impact</i> | 4 |
| 1.2 <i>Employment Impact</i> | 4 |
| 1.3 <i>Personal Earnings Impact</i> | 5 |
| 1.4 <i>Tax Impact</i> | 5 |
| 2. METHODOLOGY | 5 |
| 2.1 <i>Data Collection</i> | 6 |
| 2.2 <i>Direct Jobs, Income and Revenue Impacts</i> | 6 |
| 2.3 <i>Induced Impacts</i> | 7 |
| 2.4 <i>Indirect Impacts</i> | 7 |
| 3. SUMMARY OF RESULTS | 8 |
| II. ECONOMIC IMPACTS OF JEFFERSON COUNTY’S PRIMARY MARITIME INDUSTRY CLUSTER | 11 |
| 1. BOAT BUILDING, MAINTENANCE AND REPAIR SECTOR | 12 |
| 2. GOVERNMENT ACTIVITIES SECTOR | 13 |
| 3. THE COMMERCIAL FISHING AND SEAFOOD PROCESSING SECTOR..... | 14 |
| 4. THE MARINA AND RECREATIONAL BOATING AND FISHING SECTOR | 15 |
| 5. THE MARITIME EDUCATION AND TRAINING SECTOR | 16 |
| 6. PASSENGER ACTIVITY SECTOR | 17 |
| III. CONCLUSION..... | 18 |

I. INTRODUCTION AND OVERVIEW

Martin Associates was retained by the Port Townsend Marine Trades Association (PTMTA) to develop a county-wide economic impact study of the marine trades cluster in Jefferson County. The PTMTA is a non-profit organization of volunteer men and women employed in the marine trades. The mission of the PTMTA is to serve as a unified voice for the marine trades, promoting economic stability in the community and resolving issues that threaten the livelihood of the marine trades in Jefferson County. Jefferson County firms in the marine trades provide boat building and repair; marinas and recreational boating; commercial fishing and seafood processing; maritime education and training; marine passenger and charter services; and government.

JEFFERSON COUNTY

Jefferson County is located in the western portion of Washington State, spanning from the Puget Sound in the east to the Pacific Ocean in the west. Jefferson County has a total of 2,183 square miles of which 379 square miles (17%) is water, with a shoreline of approximately 235 miles. Eastern Jefferson County is bordered by the Strait of Juan de Fuca, Admiralty Inlet and the Hood Canal. Olympic National Forest, Olympic National Park and the Olympic Mountains lie in the center of Jefferson County. Western Jefferson County reaches into the Pacific Ocean.

Jefferson County is home to several marinas, commercial fishing and seafood processors, and recreational and commercial boat builders/maintenance operations that support the county's maritime operations. Several state and federal government agencies have operations in Jefferson County. Multiple organizations offer maritime education and training. Passenger activity is offered through several charter and sightseeing operations, as well as the Washington State Ferry Port Townsend Coupeville route.

The 2016 population estimate for Jefferson County is 30,333¹. Exhibit 1 identifies the county lines of Jefferson County, and illustrates Jefferson County's shoreline extends into the Pacific Ocean, Strait of Juan de Fuca, Admiralty Inlet and the Hood Canal.

¹ U.S. Census Bureau

Exhibit 1
Map of Jefferson County



The economic impact assessment defines the Jefferson County's marine trades cluster as including, but not limited to, the following six primary sectors:

- **Ship and Boat Building, Maintenance and Repair** – this includes activities related to the building of commercial and recreational vessels, along with the maintenance and repair of existing vessels. Recreational vessels include all yachts, sailboats, and privately-operated vessels.
- **Government Activities** – this includes all activities related to DHS's Customs and Border Protection's (CBP) operations; U.S. Coast Guard cutter Osprey; and the WA Department of Fish and Wildlife.
- **Passenger Activity** – this includes all cruise ship business activity, charter boat activity, whale watching, and Washington State Ferry Port Townsend-Coupeville route.
- **Commercial Fishing and Seafood Processing** – this includes all activities related to commercial shellfish farming located in the waters of Jefferson County. It also includes all related dockside and offsite seafood processing facilities with operations in Jefferson County. Fisherman calling Jefferson County home are also included in this sector.
- **Marina and Recreational Boating** – this includes all activities related to Jefferson County marinas, the vessels moored and/or stored at these marinas and transient recreational boating

activities. This sector also includes all recreational boat/watercraft dealerships, and related activities located at Jefferson County marinas.

- **Maritime Education and Training** – this sector includes all related marine training and education.

This assessment provides economic impact data for each sector to include but not limited to: employment impacts, business revenue impacts, personal earnings impacts, and tax impacts. The data, results, conclusion, and recommendations in this assessment are provided in a manner that can support policy decisions, master planning, feasibility analysis and economic development efforts.

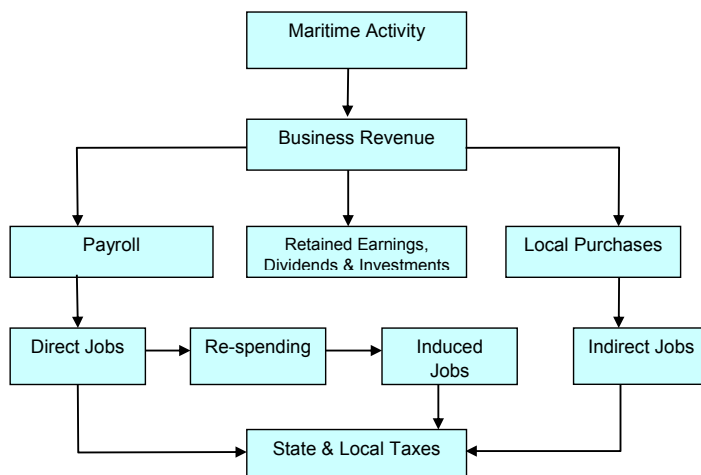
The remainder of this chapter presents an overview of the economic impact analysis and consists of the following sections:

- Flow of economic impacts of the maritime industry cluster;
- Summary of the methodology; and
- Summary of results.

1. FLOW OF ECONOMIC IMPACTS OF THE MARITIME INDUSTRY CLUSTER

The marine trades cluster generates economic impacts and business revenue within Jefferson County by providing services and selling goods to support maritime activity. These firms, in turn, provide employment and income to individuals, and pay taxes to state and local governments. Exhibit 2 shows how the impacts flow through the marine trades cluster. As this exhibit indicates, the economic impact of the marine trades cluster in Jefferson County is measured in terms of four impacts: *revenue impact*, *employment impact*, *personal income impact*, and *tax impact*. These impacts are non-additive. For example, the income impact is a part of the revenue impact and adding these impacts together would result in double counting. Exhibit 2 shows graphically how the marine trades cluster creates economic impact within Jefferson County.

Exhibit 2
Flow of Economic Impacts Generated by
Marine Trades Cluster



1.1 Business Revenue Impact

At the outset, the sales of goods and services within the marine trades cluster generates *business revenue* for these firms. This business revenue impact is dispersed throughout the county economy in several ways. It is used to hire people to provide the services, to purchase goods and services, and to make federal, state and local tax payments. The remainder is used to pay stockholders, retire debt, make investments, or is held as retained earnings.

1.2 Employment Impact

The *employment impact* consists of three levels of job impacts:

- Direct employment impact -- jobs directly generated by the firms included in the marine trades cluster of Jefferson County. Direct jobs generated by firms in boat building and repair include jobs with individuals building and maintaining commercial fishing and recreational boats at boatyards throughout Jefferson County. Direct jobs are also generated by passenger and charter operations, marinas, education facilities, commercial fishing and fish processing, etc.
- Induced employment impact -- jobs created in Jefferson County by the purchases of goods and services by those *individuals* directly employed by each of the firms in the marine trades sector. These jobs are held by residents located throughout the county, since they are estimated based on county purchases. The induced jobs are jobs with grocery stores, restaurants, health care providers, retail stores, local housing/construction industry, and transportation services, as well as with wholesalers providing the goods to the retailers.

- Indirect employment impact -- jobs created within the region due to purchases of goods and services by the firms located within the marine trades cluster, not by individuals. These jobs are estimated directly from local purchases data supplied to Martin Associates by the companies interviewed as part of this study, and include jobs with local office supply firms, maintenance and repair firms, parts and equipment suppliers, etc. It is to be emphasized that special care was taken to avoid double counting, since the current study counts certain jobs as direct (i.e., hardware stores, ship supply stores, etc.) which are often classified as indirect by other approaches, notably the input/output model approach.

1.3 Personal Earnings Impact

The *personal earnings impact* is the measure of employee wages and salaries (excluding benefits) received by individuals directly employed by the marine trades cluster. Re-spending of these earnings throughout the county economy for purchases of goods and services is also estimated. This, in turn, generates additional jobs -- the induced employment impact. This re-spending throughout the region is estimated using a regional personal earnings multiplier, which reflects the percentage of purchases by individuals that are made within the Jefferson County region. The re-spending effect varies by county -- a larger re-spending effect occurs in counties that produce a relatively large proportion of the goods and services consumed by residents, while lower re-spending effects are associated with counties that import a relatively large share of consumer goods and services (since personal earnings "leak out" of the region for these out-of-regional purchases). The direct earnings are a measure of the local impact since they are received by those directly employed by marine trades.

1.4 Tax Impact

Tax impacts are tax payments to the state and local governments by firms and by individuals whose jobs are directly dependent upon and supported (induced and indirect jobs) by marine trades in Jefferson County. These tax impacts are based on tax indices for the state of Washington, developed by the Tax Foundation. Based on the U.S. Census, 54% of the total state and local taxes generated by activity in Jefferson County is received by the State, while 46% is received at the local and county level.

2. METHODOLOGY

This section provides a summary of the methodology used to estimate the economic impacts of the marine trades cluster in Jefferson County. The methodology used in this analysis has been developed by Martin Associates and has been used to estimate the economic impacts of seaport activity at public and private marine terminals of more than 800 United States and Canadian ports. The methodology has been used in studies that have been presented before the International Trade Commission, the Council of Economic Advisors, the Federal Reserve Board, the Canadian Justice Department, and several U.S. Presidents.

2.1 Data Collection

The PTMTA developed and provided Martin Associates with a listing of members, major employers, and individuals in each of the above marine trade sectors. To develop the direct impacts, Martin Associates used telephone surveys with the PTMTA members, major employers, and individuals in each sector. Martin Associates complemented the survey data with data developed from such sources as Dun & Bradstreet, Hoovers and County Business Patterns.

2.2 Direct Jobs, Income and Revenue Impacts

The results of the interviews were combined with data obtained from Hoover's, a publication of Dun & Bradstreet, U.S. Census Data and Bureau of Labor Statistics. Using these data sets, baseline direct job, revenue and income impacts for each of the Jefferson County marine trades sectors were developed.

Through interviews with these companies and a review of published data for each of the companies as presented in Hoovers, the direct jobs were derived. Essentially, the direct jobs identified for each sector represent an actual count of the full time equivalent jobs (based on 40 hours per week) as collected through interviews and the published data for each firm. The direct income impact is the average annual salary as reported in the interviews as well as from the published data specific to each firm, multiplied by the number of direct jobs. Business revenue was developed directly from the interviews. For companies not reporting revenue, a revenue per job estimate was developed for categories within each of the maritime sectors. It is to be emphasized that no published data base is available that provides revenue per firm.

Taxes are estimated based on tax indices per personal income in the state of Washington, as provided by the Tax Foundation. It is to be noted that the tax index against personal income is not a personal tax but includes all taxes from all sources collected at the state and local levels in the state of Washington and indexed against total personal income in the state. These indexes are developed by the Tax Foundation for all states. The state of Washington index, 0.093, is multiplied by the total direct, indirect and re-spending income impact for each of the sectors to estimate total state and local taxes generated by each sector of the marine trades cluster. The U.S. Bureau of Census, *State and Local Government Finances, 2015*, provides a breakdown of the taxes collected in Washington by source of tax and the share of each tax received at the state or local/county level². The data provided by this Census publication are then used to allocate the total tax impact into state and local shares.

² "State and Local Government Finances by Level of Government and by State: 2015," U.S. Census Bureau, *2015 Annual Surveys of State and Local Government Finances*.

2.3 Induced Impacts

Induced impacts are those generated by the purchases of individuals directly employed in the marine trades. For example, a portion of the personal earnings received by those directly employed due to marine trades is used for purchases of goods and services in Jefferson County. These purchases, in turn, create additional jobs in Jefferson County, which are classified as induced. To estimate these induced jobs, personal earnings multipliers for Jefferson County were developed for each sector, using data provided by the Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II). These personal earnings multipliers differ by each sector of the maritime trades. The personal income multiplier describes the total change in income in a specific sector of the marine trades cluster as the result of a dollar of income earned by a direct employee. This is known as the multiplier effect in economics. The personal income multiplier for each sector is then used to solve for the marginal propensity to consume, which defines the share of each dollar earned by a direct employee in each sector that is used for purchases within Jefferson County. The share is applied to the total personal earnings impact within the county for each of the marine trades sectors, and the value of the county purchases is then allocated to specific local purchases categories (as determined from consumption data for Jefferson County area residents, as developed from the U.S. Bureau of Labor Statistics, Consumer Expenditure Survey). These local purchases are next converted into retail and wholesale induced jobs in the regional economy, using jobs to revenue coefficients developed for Jefferson County from the U.S. Economic Census 2012, for the state of Washington. In addition, non-consumption induced jobs are also estimated. These are jobs with service sectors such as finance and real estate, schools, and county and state governments such as fire, police and infrastructure needs. These non-consumption induced jobs are estimated by developing the ratio of state-wide jobs in these non-consumption categories to total employment (as developed from the Economic Census, 2012), and then this ratio is multiplied by the direct Jefferson County jobs in each of the sectors in the marine trades cluster.

2.4 Indirect Impacts

Indirect jobs are generated in the local economy as the result of purchases by firms that are directly dependent upon marine trades in Jefferson County. These purchases are for goods such as office supplies and equipment, maintenance and repair services, raw materials, communications and utilities, transportation services and other professional services. To estimate the indirect economic impact, local purchases, by type of purchase, were collected from the firms interviewed. Firms provided local purchases for office supplies, maintenance and repair, business services, insurance, utilities, transportation, etc. These local purchases were then combined with employment to sales ratios in local supplying industries associated with the purchase categories, developed from the Bureau of Economic Analysis, RIMS II for Jefferson County. These jobs to sales ratios capture the numerous spending rounds associated with the supply of goods and services. Special care has been exercised to avoid double counting the indirect impacts, and to specifically include only the expenditures by the directly dependent firms that are, in fact, local.

3. SUMMARY OF RESULTS

The economic impacts generated by the overall marine trades cluster in Jefferson County are summarized in Exhibit 3. This is a summation of the individual impacts at the sector level.

Exhibit 3
Economic Impacts of the Marine Trades Cluster, Jefferson County

| PORT TOWNSEND MARINE TRADES | TOTAL IMPACTS |
|---------------------------------|-------------------|
| Jobs | |
| Direct | 1,154 |
| Induced | 676 |
| Indirect | <u>413</u> |
| Total Jobs | 2,243 |
| Personal Income (\$1,000) | |
| Direct | \$54,893.1 |
| Re-Spending/Local Consumption | \$61,026.1 |
| Indirect | <u>\$19,468.4</u> |
| Total | \$135,387.7 |
| Business Revenue (\$1,000) | \$275,684.8 |
| Local Purchases (\$1,000) | \$39,743.7 |
| State and Local Taxes (\$1,000) | \$12,591.1 |

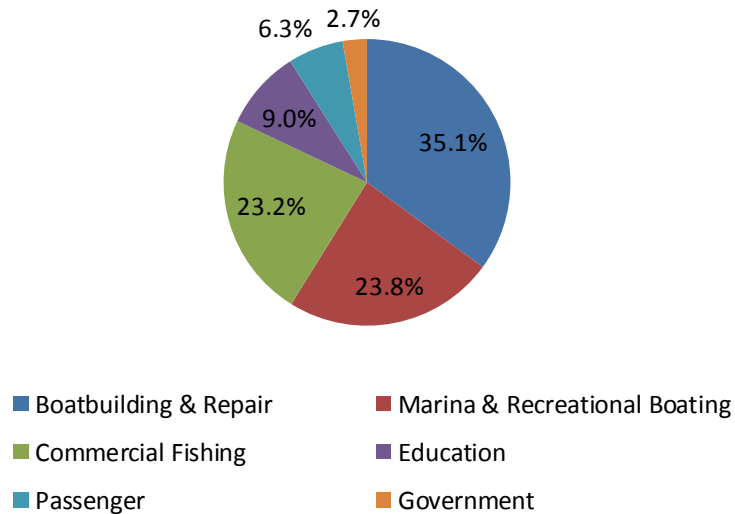
Specifically, the marine trades cluster generated the following impacts in Jefferson County in 2017.

- **2,243 jobs** were generated in the marine trades cluster in Jefferson County. This is essentially a census of the firms employment included in the marine trades cluster, including direct, induced and indirect employment.
- Of the 2,243 jobs generated, **1,154 direct jobs** are directly held by the firms in each of the sectors of the marine trades cluster in Jefferson County. These jobs are directly generated by boat building and repair; marina and recreational boating activity; commercial fishing and seafood processing; and maritime education and training; passenger services; and government.

Exhibit 4 identifies the breakdown of these 1,154 direct marine trades jobs by the economic sectors within the marine trades cluster of Jefferson County. As this exhibit highlights, the boat building

and repair sector generates the majority of the direct jobs (35.1%), followed by the marina and recreational boating sector (23.8%) and the commercial fishing activity sector (23.2%). Education, passenger and charter, and government sectors make up the balance of direct jobs.

Exhibit 4
Share of the Marine Trades Cluster Direct Jobs

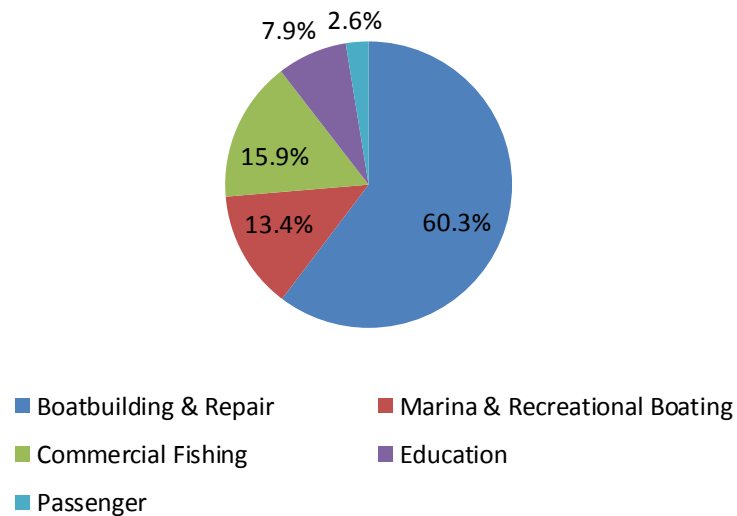


- As the result of local and regional purchases by those 1,154 individuals holding the direct jobs, an additional **676 induced jobs** are supported in Jefferson County.
- **413 indirect jobs** also are generated through \$39.7 million of local purchases by businesses included in the marine trades cluster.

The businesses included in the Jefferson County marine trades cluster generated \$275.7 million of sales revenue.

Exhibit 5 presents the distribution of the business revenue by marine trades sector. As this exhibit shows, the majority of the revenue is generated by the boat building and repair sector (60.3%). This revenue reflects the greater revenue per employee compared to the other marine trades sectors in Jefferson County.

Exhibit 5
Share of the Marine Trades Cluster Business Revenue



The 1,154 direct jobs received \$54.9 million of direct wage and salary income, for average earnings of \$47,583 per direct employee. This compares to an average wage for Jefferson County of \$37,460 in 2016³. As the result of the purchases made locally with this income, (which supported the 676 induced jobs in Jefferson County) an additional \$61.0 million of local income and consumption expenditures were created in Jefferson County. The 413 indirectly employed workers were paid \$19.5 million. In total, \$135.4 million of personal income was supported by the Jefferson County marine trades cluster.

The Jefferson County marine trades cluster generated \$12.6 million of state and local tax revenue, of which an estimated \$6.8 million was received at the state level, while an estimated \$5.8 million was received at the county and local level.

The balance of the report describes the impacts created by each sector of the Jefferson County marine trades cluster.

³ U.S. Bureau of Economic Analysis, Regional Data, Jefferson County, Economic Profile, 2016.

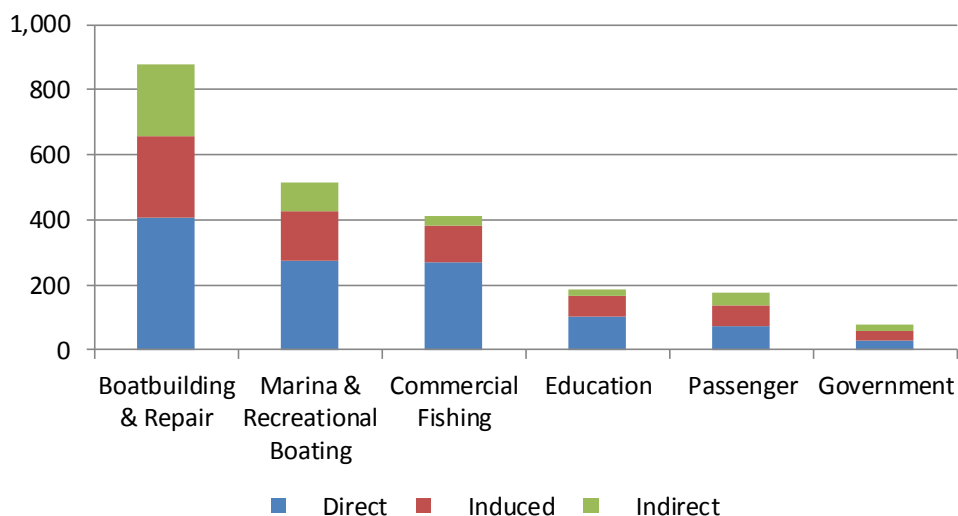
II. ECONOMIC IMPACTS OF JEFFERSON COUNTY'S PRIMARY MARITIME INDUSTRY CLUSTER

The Jefferson County marine trades cluster consists of business activity in the following six sectors:

- Boat building and Repair
- Passenger and Charter Activity
- Commercial Fishing and Seafood Processing
- Marina and Recreational Boating
- Maritime Education and Training
- Government

Exhibit 6 presents the economic impacts of the marine trades cluster by individual sectors. The marine trades cluster in Jefferson County created 2,243 total jobs (direct, induced and indirect jobs) in 2017. As this exhibit indicates, the Boat Building and Repair sector created the largest job impact with 879 total jobs. This sector includes firms and individuals engaged in the building and repairing of commercial fishing and recreational boats. The Marina and Recreational Boating sector generated 514 total jobs, followed by the commercial fishing sector with 412 total jobs.

Exhibit 6
Summary of Economic Impacts by Economic Sector



A description of the economic impacts of each of these sectors follows.

1. BOAT BUILDING, MAINTENANCE AND REPAIR SECTOR

The Ship and Boat Building, Maintenance and Repair sector includes all activities associated with the building of commercial and recreational vessels as well as maintenance and repair of existing vessels. Shipyards provide repairs to vessels, either emergency or scheduled service. Commercial vessels primarily include fishing boats and any other vessel that is operated with a documented crew. Recreational vessels include all yachts, sailboats and privately-operated vessels.

Interviews with companies such as Port Townsend Shipwrights Co-op, Haven Boatworks, Armstrong Consolidated, and Sea Marine as well as individuals specializing in various boat building and repair trades were conducted. Exhibit 7 presents the results of the Boat Building, Maintenance and Repair sector.

Exhibit 7
Summary of Economic Impacts Generated by
Boat Building, Maintenance and Repair Activity

| PORT TOWNSEND MARINE TRADES | BOAT BUILDING & REPAIR |
|---------------------------------|---------------------------|
| Jobs | |
| Direct | 405 |
| Induced | 254 |
| Indirect | <u>220</u> |
| Total Jobs | 879 |
| Personal Income (\$1,000) | |
| Direct | \$17,751.5 |
| Re-Spending/Local Consumption | \$21,878.7 |
| Indirect | <u>\$10,664.6</u> |
| Total | \$50,294.8 |
| Business Revenue (\$1,000) | \$166,261.2 |
| Local Purchases (\$1,000) | \$20,266.9 |
| State and Local Taxes (\$1,000) | \$4,677.4 |

2. GOVERNMENT ACTIVITIES SECTOR

The Government Activities sector includes federal, state and local government agencies that perform services related to marine trades in Jefferson County. U.S. Customs and Border Protection, U.S. Coast Guard Cutter Osprey, and WA State Department of Fish and Wildlife employees are included in this sector. Customs and Boarder Protection works with vessels (personal watercraft and commercial) entering United States waters from overseas and handles proper documentation of vessels and individuals onboard. Coast Guard Cutter Osprey patrols waters off Jefferson County conducting activities in law enforcement, search and rescue, marine environmental response, recreational boating safety enforcement and military readiness. The Washington State Department of Fish and Wildlife's mission is to preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities.

The jobs in this sector were identified through the PTMTA database and direct interviews with agencies in this sector were conducted.

Exhibit 8 details the economic impacts generated by the Government Activities sector in Jefferson County.

Exhibit 8
Summary of Economic Impacts Generated by
Government Activity

| PORT TOWNSEND MARINE TRADES | GOVERNMENT |
|---------------------------------|----------------|
| Jobs | |
| Direct | 32 |
| Induced | 27 |
| Indirect | <u>17</u> |
| Total Jobs | 76 |
| Personal Income (\$1,000) | |
| Direct | \$2,257.8 |
| Re-Spending/Local Consumption | \$2,782.7 |
| Indirect | <u>\$830.5</u> |
| Total | \$5,871.0 |
| Business Revenue (\$1,000) | NA |
| Local Purchases (\$1,000) | \$1,578.3 |
| State and Local Taxes (\$1,000) | \$546.0 |

3. THE COMMERCIAL FISHING AND SEAFOOD PROCESSING SECTOR

This sector includes all activities related to commercial fishing operations. It also includes all related dockside and offsite seafood processing, and retail and wholesale facilities with operations in Jefferson County. Commercial fishing is a significant economic generator in the county, including fishing for clams, oysters, crabs, geoduck, as well as other species. Also, included in the Commercial Fishing sector are local fisherman residing in Jefferson County who fish Alaska waters. Fishermen may moor their boats in Alaska or other Puget Sound marinas but live in Jefferson County and may bring their vessels to Jefferson County boatyards for maintenance and repair. These fishermen also spend their income locally in Jefferson County.

Key processors in Jefferson County include Coast Seafoods and Taylor Shellfish Company, as well as retailers and wholesalers such as New Day Fisheries and Key City Fish Company. Many of the fishermen and seafood retailers and wholesalers are family businesses, emphasizing the strong tradition of multi-generational fishing in Jefferson County.

Exhibit 9 presents the economic impact results of the commercial fishing and seafood processing activity in Jefferson County.

Exhibit 9
Summary of Economic Impacts Generated by
Commercial Fishing and Seafood Processing Activity

| PORT TOWNSEND MARINE TRADES | COMMERCIAL FISHING |
|---------------------------------|--------------------|
| Jobs | |
| Direct | 267 |
| Induced | 115 |
| Indirect | <u>30</u> |
| Total Jobs | 412 |
| Personal Income (\$1,000) | |
| Direct | \$12,110.5 |
| Re-Spending/Local Consumption | \$8,668.7 |
| Indirect | <u>\$1,420.2</u> |
| Total | \$22,199.4 |
| Business Revenue (\$1,000) | \$43,764.6 |
| Local Purchases (\$1,000) | \$2,412.1 |
| State and Local Taxes (\$1,000) | \$2,064.5 |

4. THE MARINA AND RECREATIONAL BOATING AND FISHING SECTOR

This sector includes all activities related to Jefferson County marinas, the vessels moored and/or stored at these marinas and transient recreational boating activities. This sector also includes all recreational boat/watercraft dealerships, and amenities located at the marinas.

Marinas provide a variety of amenities including fueling, boat launch, bait and tackle, storage, restaurant/bar facilities, lodging, yacht and rowing clubs and maintenance. The Port of Port Townsend operates three public marinas: Boat Haven, Point Hudson, and Herb Beck. Several private marinas are also located in Jefferson County including Cape George Colony Marina, Port Ludlow Marina, Coyle Community Club Marina, Pleasant Harbor Marina, and Bridgehaven Community Marina. Recreational water activities such as kayaking, canoeing, and paddle boarding are included in this sector.

Exhibit 10 presents the economic impact results of the marina and recreational boating activity in Jefferson County. Marinas and recreational boating generated 274 direct jobs in Jefferson County. As the result of local and regional purchases by those 274 individuals holding direct jobs in the marina and recreational boating sector, an additional 154 induced jobs are supported in Jefferson County. 86 indirect jobs also are generated through the \$8.7 million of local purchases by businesses in the marina and recreational boating sector.

Exhibit 10
Summary of Economic Impacts Generated by
Marina and Recreational Boating Activity

| PORT TOWNSEND MARINE TRADES | MARINA & RECREATIONAL BOATING |
|---------------------------------|----------------------------------|
| Jobs | |
| Direct | 274 |
| Induced | 154 |
| Indirect | <u>86</u> |
| Total Jobs | 514 |
| Personal Income (\$1,000) | |
| Direct | \$12,060.4 |
| Re-Spending/Local Consumption | \$16,124.7 |
| Indirect | <u>\$3,631.9</u> |
| Total | \$31,817.0 |
| Business Revenue (\$1,000) | \$36,806.6 |
| Local Purchases (\$1,000) | \$8,700.1 |
| State and Local Taxes (\$1,000) | \$2,959.0 |

5. THE MARITIME EDUCATION AND TRAINING SECTOR

Jefferson County is home to numerous educational programs focusing on the marine trades. The Northwest School of Wooden Boat Building located in Port Hadlock teaches and preserves traditional and contemporary boat building skills along with marine systems training for all hull materials. Open spring through fall, Port Townsend Marine Science Center is an educational and scientific organization devoted to understanding and conserving the marine and shoreline environment. Offering adult and youth maritime programs, boatshop workshops, vocational training and more, the Northwest Maritime Centers' mission is to engage and educate people in traditional and contemporary maritime life. On the register of historic vessels, Schooner Martha Foundation is a non-profit maritime educational and cultural organization. The foundation offers youth sail training as well as sail training vacations.

Expenditures from students attending the Northwest School of Wooden Boat Building were also captured. A student expenditure profile was created based on average student expenses for housing, transportation, and other miscellaneous expenses such as entertainment, clothing, etc.

Exhibit 11 presents the economic impact results of the maritime education and training activity in Jefferson County.

Exhibit 11
Summary of Economic Impacts Generated by
Maritime Education and Training Activity

| PORT TOWNSEND MARINE TRADES | EDUCATION |
|---------------------------------|------------------|
| Jobs | |
| Direct | 104 |
| Induced | 64 |
| Indirect | <u>20</u> |
| Total Jobs | 187 |
| Personal Income (\$1,000) | |
| Direct | \$5,398.6 |
| Re-Spending/Local Consumption | \$5,021.2 |
| Indirect | <u>\$1,017.0</u> |
| Total | \$11,436.7 |
| Business Revenue (\$1,000) | \$21,789.0 |
| Local Purchases (\$1,000) | \$3,167.3 |
| State and Local Taxes (\$1,000) | \$1,063.6 |

6. PASSENGER ACTIVITY SECTOR

Passenger activity includes all ACL cruise ship business activity, charter boat activity, whale watching, and the Washington State Ferry, Port Townsend Coupeville operations. Several charter operations operate out of Jefferson County marinas. Great Bear Charters offers four-hour cruises twice daily from Point Hudson Marina. Puget Sound Express offers several whale watching and puffin tours from Port Townsend. Washington State Ferries operates the M/V Kennewick on the Port Townsend Coupeville route. M/V Kennewick can carry a maximum of 748 passengers and 64 vehicles. The main passenger deck has accessible restrooms, vending machines, and a galley. Crossing time takes 35 minutes.

Exhibit 12 presents the economic impact results of the passenger activity in Jefferson County.

Exhibit 12
Summary of Economic Impacts Generated by
Passenger Activity

| PORT TOWNSEND MARINE TRADES | PASSENGER |
|---------------------------------|------------------|
| Jobs | |
| Direct | 72 |
| Induced | 63 |
| Indirect | <u>39</u> |
| Total Jobs | 175 |
| Personal Income (\$1,000) | |
| Direct | \$5,314.4 |
| Re-Spending/Local Consumption | \$6,550.0 |
| Indirect | <u>\$1,904.3</u> |
| Total | \$13,768.7 |
| Business Revenue (\$1,000) | \$7,063.4 |
| Local Purchases (\$1,000) | \$3,619.0 |
| State and Local Taxes (\$1,000) | \$1,280.5 |

III. CONCLUSION

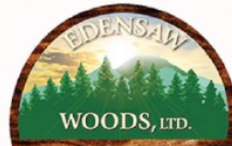
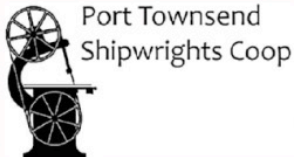
The current marine trades economy in Jefferson County, as shown in this report, generates a robust and reliable revenue stream for the local region. A total of 2,243 jobs (direct, induced and indirect jobs) are generated as a result of the marine trades cluster in Jefferson County. As a comparison, research through the U.S. Census Bureau, indicates total employment in Jefferson County in 2016 was 11,797 jobs. Jobs directly supported as a result of the maritime activity in the county is 2,243, or 19.0% of total Jefferson County employment.

The fact that the marine trades clusters of Jefferson County are of great importance to the local economy as a major source of job creation, particularly of jobs with an average wage of \$47,583, underscores the importance of marine trades as a major catalyst in Jefferson County. In order to sustain growth as an economic engine for Jefferson County and the state of Washington, emphasis should be placed on preserving the heritage and culture of marine trades in Jefferson County.

For any further information on Martin Associates credentials or methodology please visit www.MartinAssoc.net.

This Report Made Possible With Generous Support From:
Kim & Guy Sands, PT Brewing Company
Douglas Jones, Stanford Siver

Les & Libby Schnick, Sarah Heiner & Carl Berger
and the following businesses, non-profits and individual donors:



Phil & Debbie Saxton, Matilda Henry, Maupin Marine Survey, PT Fuel Dock, The Soskin Family Trust, Barbara J. Trailer, Stabile Marine, David Griswold, Stephens Marine, Brooks Townes, Carol & Wilson O'Donnell, Bertram Levy, The Commander's Beach House, On The Flye, Kimberly Matej, Cornelis Prins, Olympic Boat Transport & Crane, Pamela Teagarden, Port Townsend Watercraft, Brian Young, Jochems Property Management, Bill Putney, Patricia Kenna, Fishery Point LLC, Octopus Gardens Diving, Robert D'Arcy Marine Services, Northwest Sails & Canvas, Inc., the many cash donations and all the members of the

Port Townsend Marine Trades Association

With special thanks to Gwendolyn Tracy and Pam Petranek, whose untiring efforts made this study possible!

Economic Impact of the Maritime Trades in Jefferson County, Washington: *Executive Summary*

Conducted by Martin Associates

www.martinassoc.net

June 2018



All Photos Courtesy of Elizabeth T. Becker

Overview of the PTMTA

The Port Townsend Marine Trade Association (PTMTA) is a non-profit organization of volunteer men and women employed in the marine trades. PTMTA's mission is to serve as a unified voice for the marine trades, promoting economic stability in the community and resolving issues that threaten the livelihood of the marine trades in Jefferson County. The marine trades cluster includes the economic impacts generated by firms located in Jefferson County providing boat building and repair; marinas and recreational boating; commercial fishing and seafood processing; maritime education and training; marine passenger and charter services; and government.

Jefferson County is located in the western portion of Washington State, spanning from Puget Sound in the east to the Pacific Ocean in the west. Jefferson County has a total of 2,183 square miles of which 379 square miles, 17 percent, is water, with a shoreline of approximately 235 miles. Eastern Jefferson County is bordered by the Strait of Juan de Fuca, Admiralty Inlet and the Hood Canal. Olympic National Forest, Olympic National Park and the Olympic Mountains lie in the center of Jefferson County. Western Jefferson County reaches into the Pacific Ocean.

Jefferson County is home to several marinas, commercial fishing and seafood processors, and recreational and commercial boat builders/maintenance operations that support the county's maritime operations. Several state and federal government agencies have operations in Jefferson County. Multiple organizations offer maritime education and training. Passenger activity is offered through several charter and sightseeing operations, as well as the Washington State Ferry Port Townsend Coupeville route.

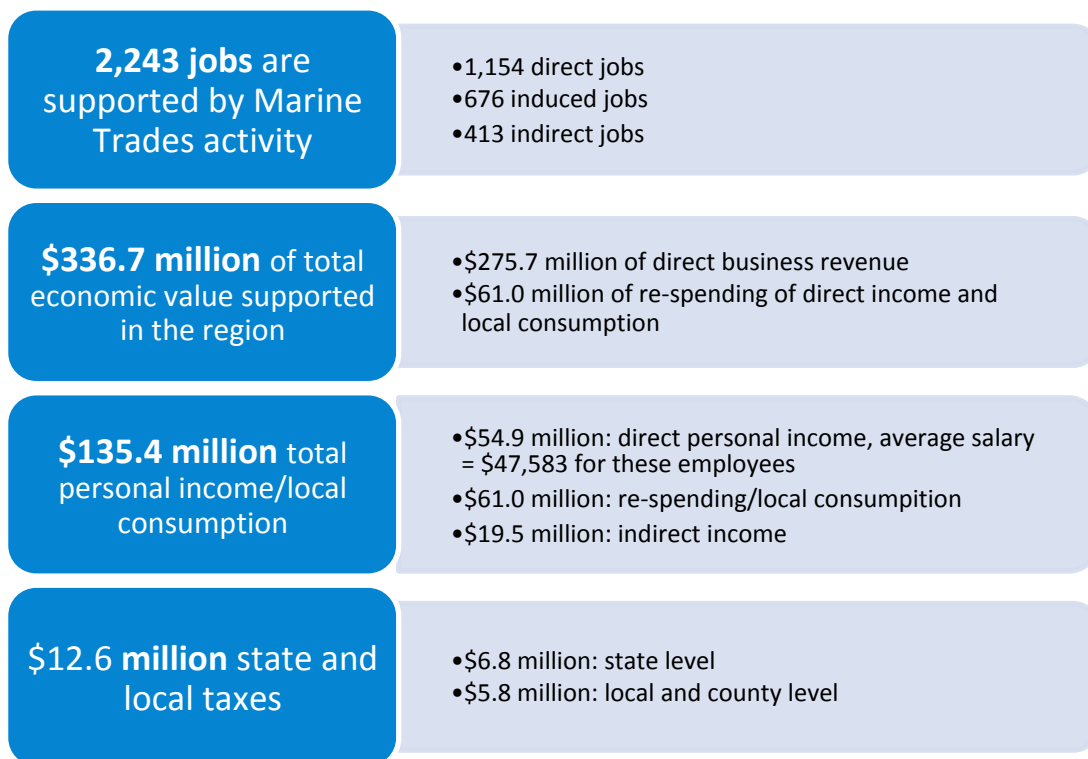


Economic Impact Analysis Methodology

Martin Associates, an internationally recognized, leading economic transportation consulting firm, was retained by the PTMTA to measure the local and regional economic impacts supported by marine trades activity in Jefferson County, WA. The study employs methodology and definitions that have been used by Martin Associates to measure the economic impacts of maritime activity at more than 500 ports in the United States and Canada, as well as at leading airports in the United States. It is to be

emphasized that only measurable impacts are included in this study. To ensure defensibility, the Martin Associates' approach to economic impact analysis is based on data developed through an extensive interview and telephone survey program of marine trades in Jefferson County. Specific re-spending models have been developed for Jefferson County to reflect the uniqueness of the surrounding regional economy.

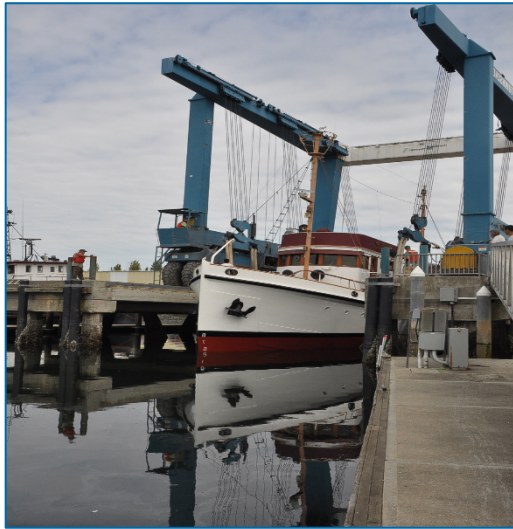
2017 Economic Impacts of the Maritime Trades - Summary of Results



*Totals may not add up exactly due to rounding

2017 PTMTA Economic Impact Results

The PTMTA supported **2,243 direct, induced, and indirect jobs** in Jefferson County, WA. Of these jobs, **1,154 jobs are directly** created by marine trades activities, while another **676 induced jobs**, are generated in Jefferson County as a result of local purchases made by those directly employed due to marine trades activity. There are **413 indirect jobs** supported in the Jefferson County as the result of \$39.8 million of local purchases made by directly dependent firms.



The 1,154 direct jobs **received \$54.9 million of direct wage and salary income**, for an average salary of \$47,583 for direct employees. As a result of the local purchases with this \$54.9 million of direct wages and salaries, an additional \$61.0 million of re-spending and local consumption expenditures were created in the state and county. This re-spending impact supported the 676 induced jobs. The indirect job holders received \$19.5 million in personal income. In total, \$135.4 million of personal income was supported by marine trades activity in Jefferson County.

Summary

The Marine Trades Cluster is an important economic force in Jefferson County, contributing \$336.7 million of total economic activity and supporting 2,243 jobs in Jefferson County. In order to sustain growth as an economic engine for Jefferson County and the state of Washington, emphasis should be placed on preserving the heritage and culture of marine trades in Jefferson County.



Local businesses received \$275.7 million of sales revenue from providing services to marine trades activity in Jefferson County. As a result of this marine trades activity, a total of **\$12.6 million of state and local tax revenue** was generated.



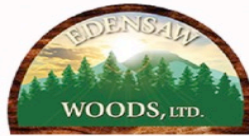
The **total economic value to the Seaport region is measured at \$336.7 million**. This consists of the direct business revenue of \$275.7 million and the re-spending and local consumption impact of \$61.0 million.



This Report Made Possible With Generous Support From:
Kim & Guy Sands, PT Brewing Company

Douglas Jones, Stanford Siver

Les & Libby Schnick, Sarah Heiner & Carl Berger
 and the following businesses, non-profits and individual donors:



Phil & Debbie Saxton, Matilda Henry, Maupin Marine Survey, PT Fuel Dock, The Soskin Family Trust, Barbara J. Trailer, Stabile Marine, David Griswold, Stephens Marine, Brooks Townes, Carol & Wilson O'Donnell, Bertram Levy, The Commander's Beach House, On The Flye, Kimberly Matej, Cornelis Prins, Olympic Boat Transport & Crane, Pamela Teagarden, Port Townsend Watercraft, Brian Young, Jochems Property Management, Bill Putney, Patricia Kenna, Fishery Point LLC, Octopus Gardens Diving, Robert D'Arcy Marine Services, Northwest Sails & Canvas, Inc., the many cash donations and all the members of the

Port Townsend Marine Trades Association

With special thanks to Gwendolyn Tracy and Pam Petranek,
 whose untiring efforts made this study possible!

