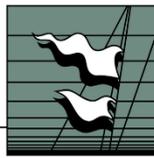


**The Economic Impacts of the Commercial Fishing
Fleet at the Port of Bellingham
2013**



PORT OF BELLINGHAM
Washington State

**Prepared for the Port of Bellingham
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THE ECONOMIC IMPACT OF COMMERCIAL FISHING ACTIVITY AT THE PORT OF BELLINGHAM

In 2013, Martin Associates was retained by the Port of Bellingham to conduct the Port's Economic Impact Study. The study measured the Economic Impacts generated by the Bellingham International Airport, Port of Bellingham Real Estate tenants, the Alaska Marine Highway and Port of Bellingham marina operations. In the interest of local commercial fisherman, the Working Waterfront Coalition and the Port of Bellingham, Martin Associates conducted a separate Economic Impact of the commercial fishing vessels using the Port's Squalicum and Blaine Marinas. The Economic Impact of the commercial fishing fleet is a stand-alone report and cannot be added to the Port of Bellingham Economic Impact Study since double counting would occur with cold storage, fish processing, vessel spending, and marina operations.

The Port of Bellingham is an ideal base for a commercial fishing fleet. Bellingham's key geographic location makes the waters of the Puget Sound, Southeast Alaska, and waters off the Pacific Northwest of the United States very accessible to the commercial fishing fleet based in Bellingham. Squalicum and Blaine marinas operated and managed by the Port of Bellingham, offer slips and amenities to the commercial fishing fleet fishing the adjacent waters. In 2013, 162 fishing boats were moored at Squalicum and Blaine marinas. Another 150 fishing vessels moored at the Port's facilities throughout the year as a base for a particular fishing season, access to fishing grounds, and/or for vessel repairs and maintenance. While tied-up at Port of Bellingham marinas, these 162 based vessels and 150 transient vessels make numerous purchases of goods and services from local firms. Such purchases include expenditures for shipyard repair services, painting, electronic equipment, engine and propulsion services, fishing gear, packaging material, fuel, insurance, legal services, and ship stores (food and supplies for the crew). These purchases by the fishing fleet in turn support local jobs with shipyards, ship chandlers, electronics retailers, marine engine specialists, local retail and grocery stores, ship brokers, insurance brokers and hardware stores. To quantify this economic impact, Martin Associates modified our current economic impact model for the Port of Bellingham to translate the local purchases and economic activity of the fishing vessels moored at the Port's marinas, as well as the transient commercial fishing vessels visiting the Port's marinas into jobs, income, business revenue and tax revenues.¹

It is to be emphasized that the Washington based fishing fleet uses other terminals and moorings throughout Southeast Alaska, the West Coast and Puget Sound areas. In addition to Bellingham, purchases and offloads by the fleet occur in these other geographic locations. The purpose of this impact analysis is to focus only on the impacts generated by the fleet using Port of Bellingham marinas. As a result, the impacts of the fishing fleet measured in this report are only a subset of the total economic impacts generated by the fishing industry on the West Coast and the Puget Sound region.

To estimate the economic impacts generated by the commercial fishing fleet using Port of Bellingham marinas, the various types of fishing vessels moored at the marina were profiled. It is necessary to estimate the economic impacts by type of vessel, since each type of fishing boat has a very different expenditure profile, which is a function of such factors as:

¹ The Economic Impacts of the Port of Bellingham, Prepared for the Port of Bellingham, by Martin Associates, November 21, 2013.

- The size of the boat;
- Designed purpose of the vessel -- a catcher boat which catches fish and delivers the catch to on-shore or off-shore processors, a tender -- which services the fishing fleet with supplies and ship stores, or a factory ship or processor -- which processes fish at sea;
- Type of fishing gear used, such as the use of longlines versus nets versus pots; and
- Where the fishing is done - in local or distant waters.

The fishing fleet based at the Port of Bellingham's marinas consists of the following types of vessels:



Purse seine vessels, which typically fish for salmon, squid, sardines and herring using a purse seine net;



Gillnet boats, which use gillnets for salmon fishing;



Longline vessels, which fish for groundfish such as halibut and black cod using a hook and line gear;



Crab boats, which include crab catchers using crab pots;



Catcher trawlers, which catch ground fish of all types by dragging a net; and



Tenders, which transport fish from fishing vessels in the Puget Sound and Southeast Alaska to shore side processors.

A log of commercial fishing vessels moored at the Port of Bellingham harbors during 2013 was entered in a spreadsheet and reviewed by commercial fishers. The log identified vessels as transient or resident and large or small. In 2013, 312 fishing vessels moored at the Port's marinas. The Working Waterfront Coalition members sorted through the log and assigned each vessel by type of fishing vessel. Approximately 205 vessels were identifiable by the fishers and coded. The balance was small vessels the WWC had assigned randomly, one half gill netters/crabbers, one quarter gill netters and one quarter crabbers. Exhibit I shows the type of fishing vessels based at Squalicum and Blaine marinas by type of fishing vessel. Gill Netters are the most common type of fishing vessel, both home port and transient vessels, based at Port of Bellingham Marina's. Purse Seiners are the second most common type of fishing vessel followed by Crabbers. This is a direct

correlation to the fish species located in the adjacent waters of the Puget Sound, Southeast Alaska and waters off Washington, Oregon and Northern California.

Exhibit I
Type of Fishing Vessels

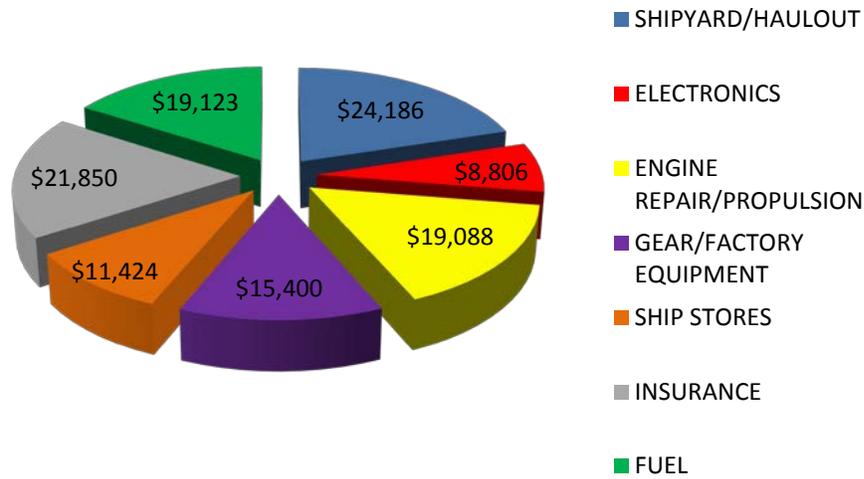
Type of Vessel	Home Port	Transient	Total
Crabber	20	31	51
Gill Netter	74	54	128
Long Liner	3	7	10
Purse Seiner	42	37	79
Shrimp	0	2	2
Tender	10	15	25
Trawler	8	3	11
Unidentified	<u>5</u>	<u>1</u>	<u>6</u>
Total	162	150	312

Many of these vessels change gear and equipment throughout the year to fish various species in the Puget Sound, Southeast Alaska, and waters off the Pacific Northwest Coast of the United States.

To estimate the expenditures by each type of vessel surveys were mailed to local fishing boat owners identified in the commercial fishing vessel log derived by the Port of Bellingham, Jim Kyle and the Working Waterfront Coalition. In person interviews with individual boat operators were also conducted. Data provided by the fishing fleet was combined with internal Martin Associates’ interviews with the various trade associations representing the types of boats operating in the Pacific Northwest to translate these local purchases into economic impacts.

Exhibit II represents average annual expenditures of an example purse seine vessel based at Squalicum and Blaine marinas in 2013. The vessel expenditure profiles were developed from surveys completed by local fishing vessel owners during the data collection process. The vessel owners reported type of vessel and annual expenditures for shipyards, electronics, gear, ship stores, etc. Exhibit II represents actual annual expenditures for an example purse seine vessel moored in Bellingham. The average purse seine vessel spends roughly \$120 thousand dollars per year. Exhibit II illustrates the share of vessel expenses by category. These expenditures were then combined with jobs to value of sales ratios in corresponding supplying industries to estimate the number of local direct jobs supported by the vessels based at the Port’s marinas. Added to these direct jobs are the number of crew employed by the fleet, ship brokers and insurance brokers providing services to the fishermen at the marina and employees with shore-side fish processing and cold storage. Several of the direct jobs with fish processors, cold storage and other marine trades are included in the 2013 Port of Bellingham Economic Impact Study, prepared by Martin Associates for the Port of Bellingham. It is to be emphasized the economic impact results of the commercial fishing report and Port of Bellingham Economic Impact Study cannot be added together since it would result in double counting.

Exhibit II
Annual Expenditures in Bellingham for an example Purse Seine Vessel



Commercial fishing activity contributes to the local and regional economy by generating business revenue to the fishing vessels and local firms providing services to the commercial fleet. These firms, in turn, provide employment and income to individuals, and pay taxes to state and local governments. Exhibit III, below, shows how commercial fishing activity at the Port of Bellingham's Squaticum and Blaine marinas generate impacts throughout the local economy. As this exhibit indicates, the impacts of commercial fishing, on a local economy cannot be reduced to a single number, but instead, the Port's commercial fishing activity creates several impacts. These are the 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 III shows graphically how the Port of Bellingham's commercial fishing fleet generates the four impacts.

Exhibit III
Flow of Economic Impacts Generated by the Port of Bellingham Commercial Fishing Activity

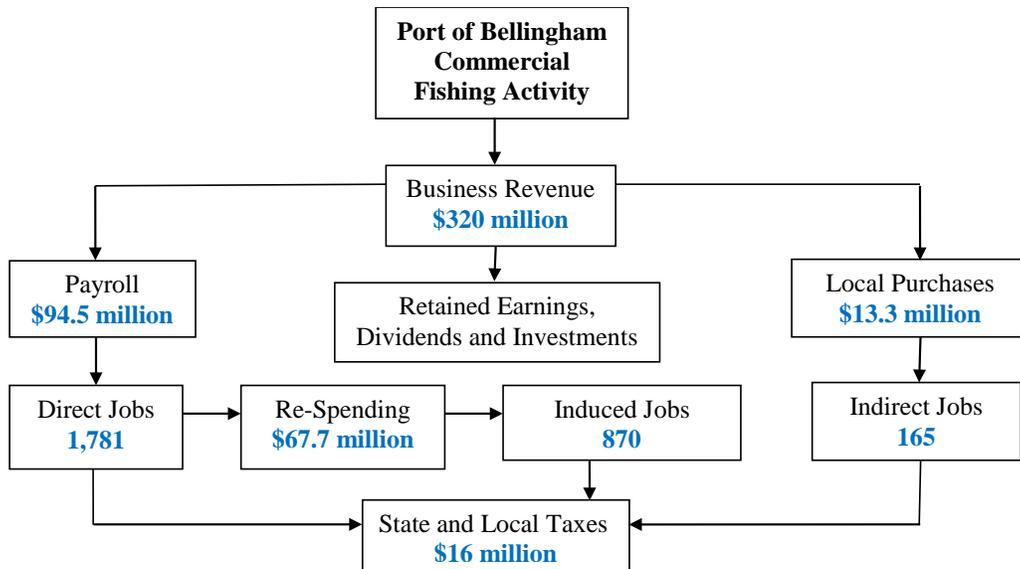


Table I presents the economic impacts generated by the Port of Bellingham commercial fishing activity.

Table I
Economic Impacts of Port of Bellingham Commercial Fishing

PORT OF BELLINGHAM	COMMERCIAL FISHING
Jobs	
Direct	1,781
Induced	870
Indirect	<u>165</u>
Total Jobs	2,816
Personal Income (\$1,000)	
Direct	\$94,556
Induced	\$67,683
Indirect	<u>\$7,602</u>
Total	\$169,842
Business Revenue (\$1,000)	\$320,059
Local Purchases (\$1,000)	\$13,330
State and Local Taxes (\$1,000)	\$15,965

Note: Totals may not add due to rounding
*Revenue excludes value of the catch

In 2013, commercial fishing activity at Squalicum and Blaine marinas generated the following impacts:

- 1,781 direct jobs, including full-time equivalent jobs with the fishing crew based at the Squalicum and Blaine marinas, jobs with local shipyards, chandlers, engine/propulsion repair shops, retail stores, suppliers of fishing gear, insurance brokers, public restaurants, and retail stores and fishing processing, storage and distribution.
- As the result of purchases by these 1,781 directly generated jobs, an additional 870 induced jobs are created in the local economy.
- As the result of \$13.3 million of local purchases by the firms located at Port of Bellingham marinas, an additional 165 indirect jobs were created in the local economy.
- The 1,781 direct job holders earned \$94.5 million in direct wages and salaries. As the result of re-spending of this income, an additional \$67.7 million of personal income and consumption expenditures were generated. The 165 indirect jobs received \$7.6 million in indirect wages and salaries.
- Local businesses received \$320 million of revenue from the purchases by the fishing fleet at the Port of Bellingham marinas, as well as from retail sales. This does not include the landed value of the fish catch.
- State and local governments received nearly \$16 million of tax revenue from the activity generated by the commercial fishing fleet using the Port of Bellingham marinas.

Because of the diversity of commercial fishing-associated activity in Bellingham, the distribution of the direct job impacts created by type of activity is shown in Exhibit IV. As this exhibit demonstrates, sixty five percent of the 1,802 direct jobs are held by shore-side fish processing, cold storage and distribution, followed by crew and support services including local firms supplying support services to the fleet based at Squalicum and Blaine Marinas, such as jobs with shipyards/engine propulsion companies, ship chandlers and equipment supply firms. The balance of the jobs are with visitor impacts generated by transient and visiting fishing vessels using Port of Bellingham Marinas for moorage or offloading fish to the processors located in Bellingham.

Exhibit IV
Distribution of the Direct Jobs Generated by Port of Bellingham Commercial Fishing

