Economic Data Collection Program

First Receiver and Shorebased Processor Report (2009-2014)

Marie Guldin, Erin Steiner, Amanda Warlick, Jerry Leonard

NOAA Fisheries

Northwest Fisheries Science Center[1]

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[1] For questions or comments, please contact the EDC Program at nwfsc.edc@noaa.gov.

2014 Economic Data Collection (EDC)

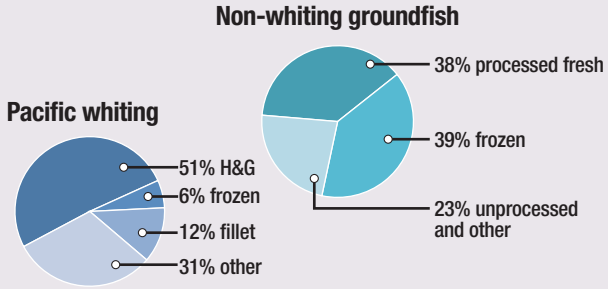
West Coast Groundfish Trawl Catch Share Program

FIRST RECEIVERS & SHOREBASED PROCESSORS

ECONOMIC SUMMARY[1]

Company[2] Average
16 processors
$8.6M revenue
$7.3M variable costs
$1.3M variable cost net revenue
$641K fixed costs
$684K total cost net revenue

INDUSTRY-WIDE PRODUCT TYPES



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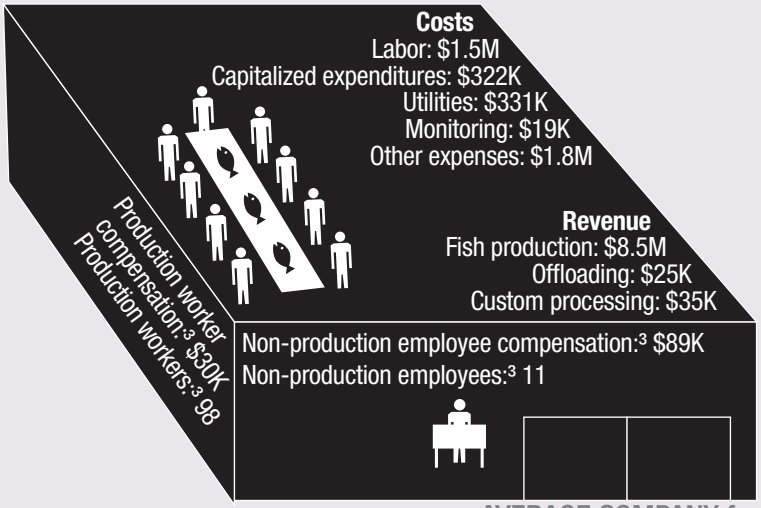
SHORESIDE PROCESSING

Value & weight of processed groundfish
# of processing facilities



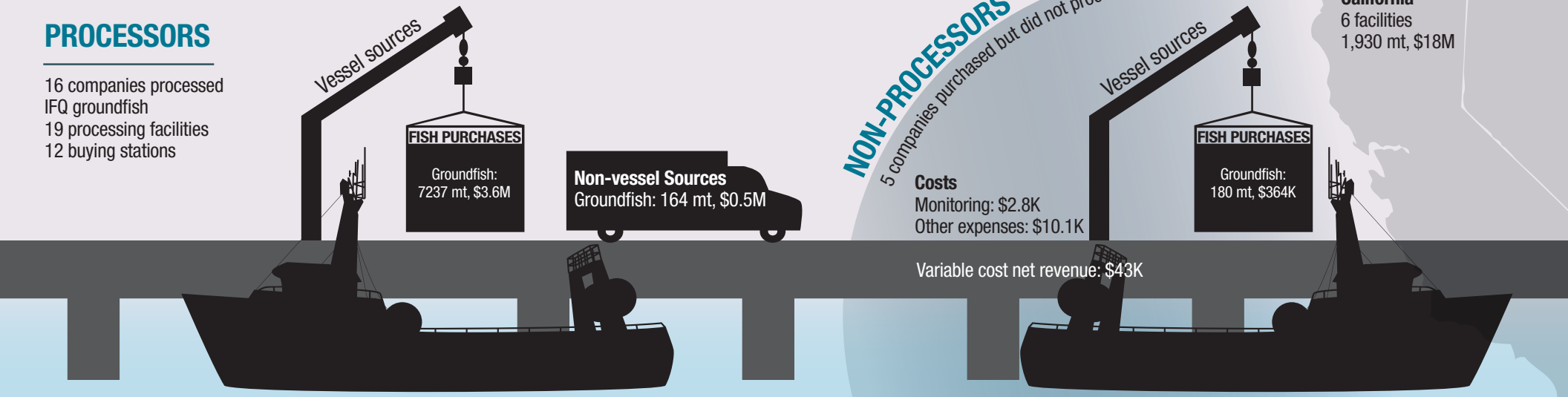
AVERAGE COMPANY for GROUNDFISH PRODUCTION

PRODUCTION

	N (companies)	Weight (1000 mt)	Value (millions)
Pacific whiting	8	61.0	$71
DTS	14	4.6	$40
Other groundfish	15	4.1	$18
Crab	15	6.5	$96
Shrimp	11	16.2	$77
Halibut	10	0.3	$5
Salmon	12	3.7	$38
Other	15	25.7	$39

PROCESSORS

16 companies processed IFQ groundfish
19 processing facilities
12 buying stations



[1]Note that some off-site costs are not collected. Therefore reported net revenue is an overestimate of actual net revenue.
[2]The unit of analysis is first receiver site license owner, or "company."
[3]Employment information is for all operations (groundfish and other species).

www.nwfsc.noaa.gov/edc/reports

First Receiver and Shorebased Processor Sector: 2014 Highlights[1]

In 2014, there were a total of 21 catch share first receivers (companies[2] that purchased catch share groundfish), including 16 processors (purchased catch share groundfish and processed groundfish) and five non-processors (purchased catch share groundfish and did not process groundfish).

- The sector generated $62 million in income and 930 jobs from purchases of fish caught in the trawl catch share program.
- Catch share first receivers received about 44% of all fish weight caught commercially on the West Coast in 2014, which was 30% of the total value of all fish purchased.
- Catch share processors employed the most production workers in the month of August, with an average of 132 production workers per company, and the fewest in February, with an average of 57 workers per company. Processors on average had 11 non-production employees per company.
- Average annual compensation per position for production and non-production workers employed by catch share processors was $29,576 and $88,671, respectively, in 2014.
- Average revenue per catch share processor was approximately $24.9 million in 2014. Nearly all processor revenue came from fish product sales (99.6%).
- Average total cost net revenue (revenue minus variable costs and fixed costs) for all operations (catch share and non-catch share) was $1.8 million for catch share processors in 2014 (Figure 9). Average variable cost net revenue (revenue minus variable costs) was $3.3 million.
- For Pacific whiting production, average total cost net revenue was $666,049 and average variable cost net revenue was $1.6 million.
- For non-whiting groundfish production, average total cost net revenue was $373,953, and average variable cost net revenue was $572,185.
- Catch share non-processors had an average variable cost net revenue of $42,701 per company.

[1] Values reported in inflation adjusted 2014 dollars. The pre-catch share baseline period is defined as the years 2009 and 2010.

[2] The unit of analysis is the first receiver site license owner, or "company." To maintain analytical consistency, reduce the reporting burden for participants, and protect confidential data, data are aggregated to the company level for businesses that own multiple facilities with first receiver site licenses.

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Acknowledgments

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We appreciate the efforts of the Northwest Regional Office for support in the EDC Program development, outreach, and communication efforts. The Permit Office staff was particularly instrumental in ensuring compliance with the mandatory participation requirements.

The Northwest Division of the Office of Law Enforcement (OLE) and the National Oceanic and Atmospheric Administration (NOAA) Office of General Council helped extensively with many aspects of the EDC Program development and enforcement. They continue to collaborate with the EDC Program to ensure compliance. We thank the NWFSC Scientific Data Management staff for building the administrative tracking system and database, and the NWFSC Fishery Resource Analysis and Monitoring data team for continued support.

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We thank the Pacific Fishery Management Council and advisory bodies for their valuable comments on the EDC reports and data.

Finally, we thank the members of the West Coast fishing industry who met with us to discuss the development and implementation of data collection processes. We appreciate the time and effort of each participant that will continue to help improve the program in the coming years.

Report Introduction

About the Report

The US West Coast groundfish fishery takes place off the coasts of Washington, Oregon and California, and is comprised of over 90 different species of fish. The fish are harvested both commercially and recreationally. The commercial fishery has four components: limited entry with a trawl endorsement, limited entry with a fixed gear endorsement, open access, and tribal. In January 2011, the West Coast Limited Entry Groundfish Trawl fishery transitioned to the West Coast Groundfish Trawl Catch Share Program. The catch share program consists of cooperatives for the at-sea mothership (including catcher vessels and motherships) and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet.[3] The Economic Data Collection (EDC) Program is a mandatory component of the West Coast Groundfish Trawl Catch Share Program, collecting information annually from all catch share participants: catcher-processors, catcher vessels, motherships, first receivers, and shorebased processors. The EDC information is used to monitor the economic effects of the catch share program, and consists of data on operating costs, revenues, and vessel and processing facility characteristics.

This report summarizes information collected from the West Coast first receiver and shorebased processor sector. The EDC reports are also produced for the other sectors, and currently cover the years 2009 to 2014. The 2009 and 2010 data were collected in 2011 to provide a baseline of pre-catch share information. There is a one-year lag in collecting the EDC data to allow companies to close their accounting books. Thus, 2014 data were collected from May to September 2015. The EDC reports are updated annually to disseminate the data collected and provide background, analysis, and context to support the interpretation of the data. The reports are also expected to serve as a catalyst for feedback on the data collected and its analysis. It is envisioned that the scope of these reports will expand, and the methods used will be refined with each publication.

The report is composed of three major sections. The first section, First Receiver and Shorebased Processor Overview (beginning on page 9), is an in-depth summary that contains descriptive analyses of the first receiver and shorebased processor sector focusing on activities during 2014. The second section, First Receiver and Shorebased Processor Data Summaries (beginning on page 40), provides tables of all of the data collected from 2009 to 2014, with a detailed discussion of the methods used to collect and analyze the data. The third section, First Receiver and Shorebased Processor Data Analysis (beginning on page 171), contains information about cost disaggregation and calculations of net revenue and economic performance. The data that form the basis for this report are confidential and must be aggregated so that individual responses are protected. In cases where there are not enough observations to protect confidentiality, the data are either not shown, or are combined with broader groups of data. More information about EDC Program administration and fielding of the surveys, the EDC forms, data

[3] Information about the West Coast Groundfish Trawl Catch Share Program is available online at http://www.westcoast.fisheries.noaa.gov/fisheries/groundfish_catch_shares/.

quality controls and quality checks, data processing, and safeguarding confidential information can be found in the EDC Administration and Operations Report.[4]

Background - Economic Data Collection and West Coast Groundfish Trawl Catch Share Program

The economic benefits of the West Coast groundfish trawl fishery and the distribution of these benefits are expected to change under the West Coast groundfish trawl catch share program. To monitor these changes, the Pacific Fishery Management Council (PFMC) proposed the implementation of the mandatory collection of economic data. Using data collected from industry participants, the EDC Program monitors whether the goals of the catch share program have been met.

Many of the PFMC's goals for the catch share program are economic in nature. These goals include: provide for a viable, profitable, and efficient groundfish fishery; increase operational flexibility; minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical; promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry; provide quality product for the consumer; and, increase safety in the fishery.

The EDC program is also intended to help meet the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 2007 requirement to determine whether a catch share program is meeting its goals, and whether there are any necessary modifications of the program to meet those goals. The MSA requires a formal review 5 years after the implementation of a catch share program to which the EDC Program will make a valuable contribution.

Monitoring the economic effects of a catch share program requires a variety of economic data and analyses. The primary effects of a catch share program can be captured in two broad types of economic analysis: 1) economic performance measures, and 2) regional economic impact analysis. Both of these require information on the costs and earnings of harvesters and processors.

Economic performance measures include: costs, earnings, and profitability (net revenue); economic efficiency; capacity measures; economic stability; net benefits to society; distribution of economic net benefits; product quality; functioning of the quota market; incentives to reduce bycatch; market power; and, spillover effects in other fisheries. Some of these measures are presented in this report, while others will require more specific and involved analysis using EDC data.

Regional economic impact analysis measures the effects of the program on regional economies. The catch share program will likely affect different regional economies in different ways. Regional economic modeling involves tracking the expenditures of all businesses, households, and institutions within a given geographic region to arrive at the effects on income and employment. On the Pacific coast, the

[4] For more information about the EDC Program and the West Coast Groundfish Trawl Catch Share Program, please see the Economic Data Collection Program, Administration and Operations Report available at the EDC website: http://www.nwfsc.noaa.gov/edc.

Northwest Fishery Science Center's IO-PAC model[5] is used to estimate regional economic impacts using data from both the EDC survey forms and the voluntary cost earnings survey as model inputs.[6]

[5] Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

[6] For more information on cost earnings survey data collection process, see the Administration and Operations Report Draft Report for PFMC Review (May 2016).

OVERVIEW

Management Context

In January 2011, the West Coast Limited Entry Groundfish Trawl fishery transitioned to the West Coast Groundfish Trawl Catch Share Program. The catch share program consists of cooperatives for the at-sea mothership (including catcher vessels and motherships) and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet. The Shorebased IFQ Program allocated quota to permit owners for 30 different groundfish species and rockfish complexes, and individual bycatch quota for Pacific halibut, based on catch history.[1] Also, 20% of the shoreside Pacific whiting allocation was given to eligible shorebased processors. Eligibility and initial allocation percentage were determined by historical deliveries to shorebased processors from 1994 to 2004.[2] No quota allocation was given to processors for non-whiting catch share groundfish. While transfers of quota pounds (transferring use of that quota pound for that year) began in 2011, there was a moratorium on transfers of quota share percentages (permanently transferring a percent of allocation) until January 1, 2014.

Sector Description: First Receivers

A first receiver is defined by groundfish regulations as "a person who receives, purchases, or takes custody, control, or possession of catch onshore directly from a vessel."[3] Groundfish regulations (50 CFR 660.11) define a shorebased processor as a "a person, vessel, or facility that engages in commercial processing ... at a facility that is permanently fixed to land." With the implementation of the West Coast Groundfish Trawl Catch Share Program, federal regulations mandate that a first receiver site license is required to receive fish harvested within the Shorebased IFQ Program.[4]

In the first receiver and shorebased processor sector, 28 companies had first receiver site licenses in 2014 (46 licenses in total, as some companies have multiple licenses), all of which submitted a complete EDC form. Of these companies, 21 used their first receiver site license by purchasing groundfish caught in the catch share program. The first receiver and shorebased processor sector generated $62 million in income and 930 jobs from purchases of fish caught in the catch share program.[5]

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1 https://www.webapps.nwfsc.noaa.gov/ifq/.

2 https://www.federalregister.gov/articles/2013/01/02/2012-31546/fisheries-off-west-coast-states-pacific-coast-groundfish-fishery-management-plan-trawl.

3 50 CFR 660.111.

4 50 CFR 660.25.

5 Values calculated using the NWFSC IO-PAC model (Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.).

As the purpose of the EDC Program is to collect information to monitor the economic effects of the catch share program, this Overview only examines those first receivers that purchased catch share groundfish, referred to as catch share first receivers. Thus, companies that had a first receiver site license but did not purchase catch share groundfish are excluded.[6] The unit of analysis is the first receiver site license owner, or "company." Owners of multiple first receiver site licenses are required to submit a form for each site (facility). To maintain analytical consistency, reduce the reporting burden for participants, and protect confidential data, data are aggregated to the company level for businesses that own multiple facilities with first receiver site licenses. All values reported here in the Overview are inflation adjusted 2014 dollars.

Catch share first receivers received about 44% of all fish weight caught commercially on the West Coast in 2014, which was 30% of the total value of fish purchased (Figure 1). This included 92% of all groundfish and 64% of all shrimp purchased on the West Coast.

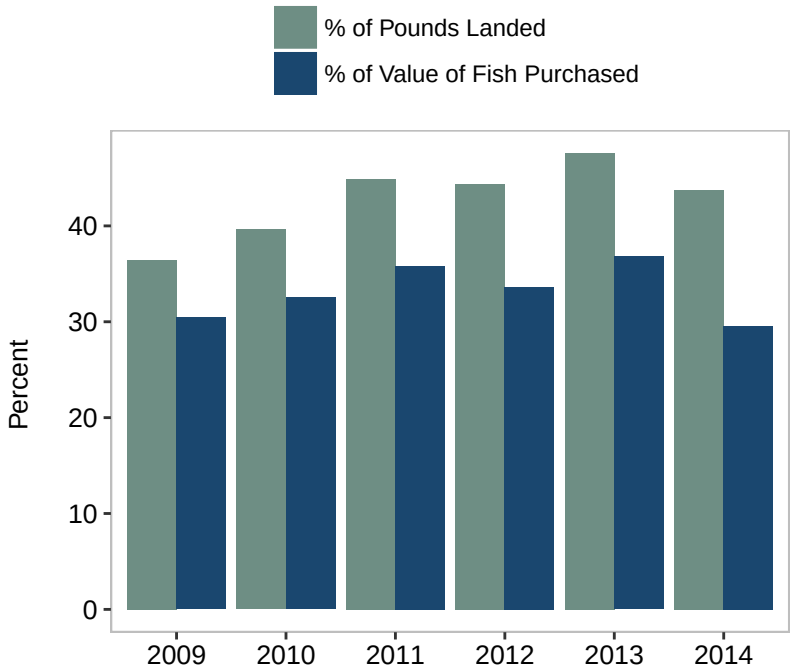

Figure 1: Percent of all West Coast shoreside commercially caught fish received by catch share first receivers.

In addition to groundfish, over 30% of the weight of fish purchased and 70% of the value of fish purchased in 2014 by catch share first receivers were from non-groundfish landings, such as crab, shrimp, tuna, and sardines (Figure 2). These companies also purchase fish from non-vessel sources, which can include other first receivers, processors, wholesale dealers, brokers, tribes, and aquaculture producers. In 2014, 9% of all fish weight purchased, 2% of groundfish purchased, and 20% of other species purchased were from non-vessel sources.[7]

There are facilities that receive fish in all three states on the West Coast. In 2014, California had the most facilities (14), followed by Oregon (13 facilities) and Washington (4 facilities). The ports with the highest groundfish landings in 2014 were Newport and Astoria/Tillamook, Oregon (Table 1). Astoria/Tillamook received about 90 million pounds of groundfish, worth $17 million. Newport received 97 million pounds, worth $13 million. All of the California ports combined received 9.3 million pounds, worth $10.8 million.

[6] The values in the Data Summaries and Data Analysis sections include all companies that had a first receiver site license regardless of whether they used it to purchase catch share groundfish.

[7] The information for non-vessel sources is reported for the 2014 fiscal year, as it is collected on the EDC forms. The remaining values in this section are reported for the 2014 calendar year as the information is gathered from PacFIN fish ticket data and the totals include non-EDC participants.

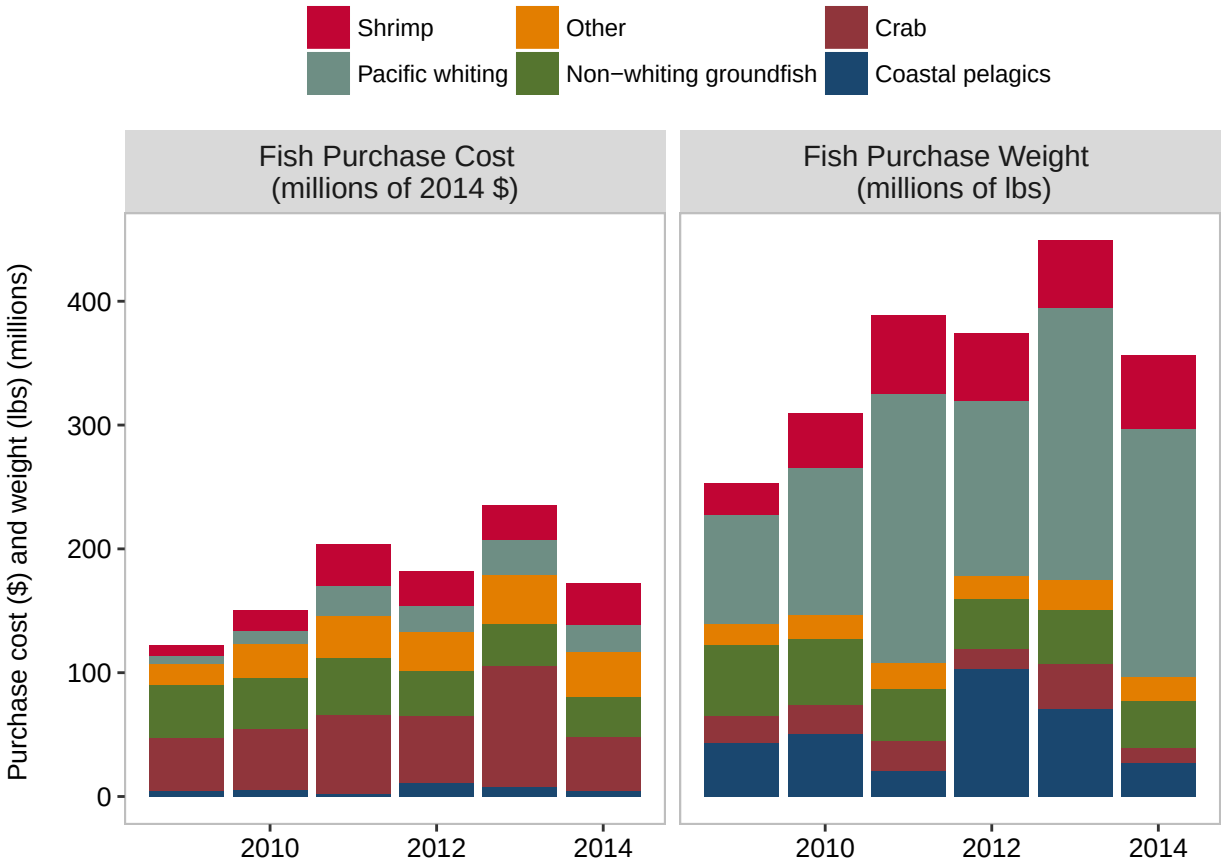

Figure 2: Total fish purchase cost (millions of 2014 $) (left) and purchase weight (millions of lbs) (right) by species group for catch share first receivers.

Table 1: Catch share first receivers total purchase cost, landings weight, and number of companies purchasing fish for all groundfish fisheries in 2014. Some companies purchase fish in multiple ports, and each company is counted in every port where fish is purchased.

	Purchase Cost (millions of $)	Landings (millions of lbs)	Number of companies
Washington state	5.4	39.3	4
Tillamook, Astoria, Oregon	17.2	90.0	4
Newport, Oregon	12.7	97.3	4
Southern Oregon	4.3	5.6	4
Northern California	6.1	8.0	5
San Francisco, CA	0.6	0.8	4
Santa Barbara, Morro Bay, Monterey, CA	2.6	2.0	3

Processors and Non-Processors

First receiver and shorebased processor operations range from independent catcher vessel owners who unload and truck their own fish, to large, multi-facility processing companies with a wide range of products. Due to the variety of operations, first receivers and shorebased processors that participated in the catch share program are separated into two categories:

- **Catch share processors**: companies that purchased catch share groundfish and processed groundfish.
- **Catch share non-processors**: companies that purchased catch share groundfish and did not process groundfish.

In 2014, there were 16 companies classified as catch share processors and 5 companies classified as catch share non-processors (Figure 3). Since 2009, there have been four new entrants and 15 companies have exited (mostly non-processors).

The EDC Program tracks economic indicators by compiling information submitted by catch share first receivers about expenses and revenue and how those figures change over time. Pre-catch share data for the 2009 and 2010 operating years were submitted in 2011 and have been averaged to calculate "baseline" conditions within the fishery to which subsequent years of data can be compared. EDC participants complete the form using information based on the fiscal year of the entity. Values reported in the remainder of this report are presented for fiscal year, and data assigned to a fiscal year may not overlap completely with the calendar year.

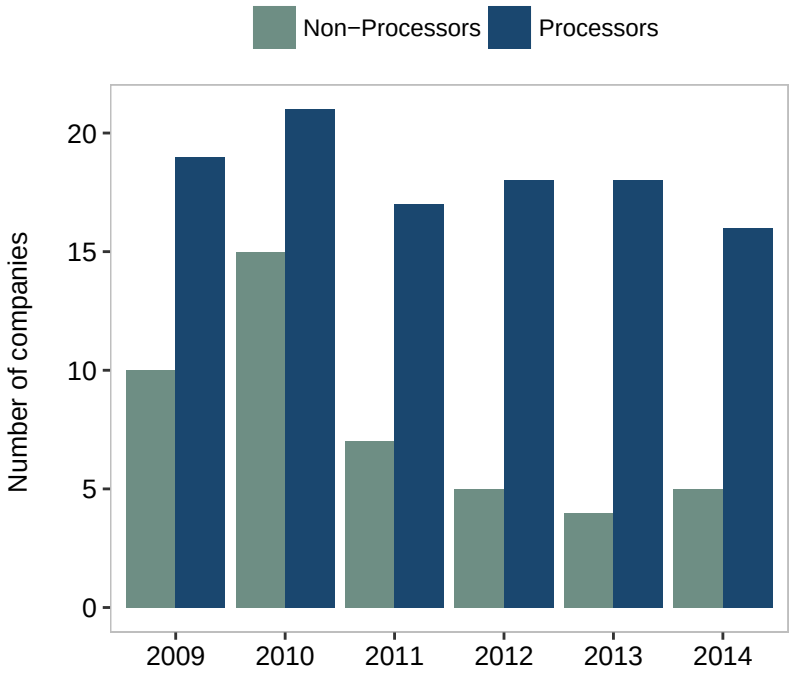

Figure 3: Number of companies characterized as catch share processors and non-processors.

Non-Processors

Catch share non-processors are companies that purchased catch share groundfish but did not process groundfish.[8] Non-processors accounted for only 0.3% of total fish weight received in 2014 by all catch share first receivers, which was 1.7% of the value of fish purchased. Fish purchases made up an average of 78% of variable costs associated with groundfish operations in 2014. Variable costs less fish purchases were an average of $12,536 in 2014. Average variable cost net revenue (revenue minus variable costs) per company for groundfish operations was $42,701. Due to the small number of catch share non-processors, changes in cost and net revenue measures are mainly driven by a changing population from year to year.[9]

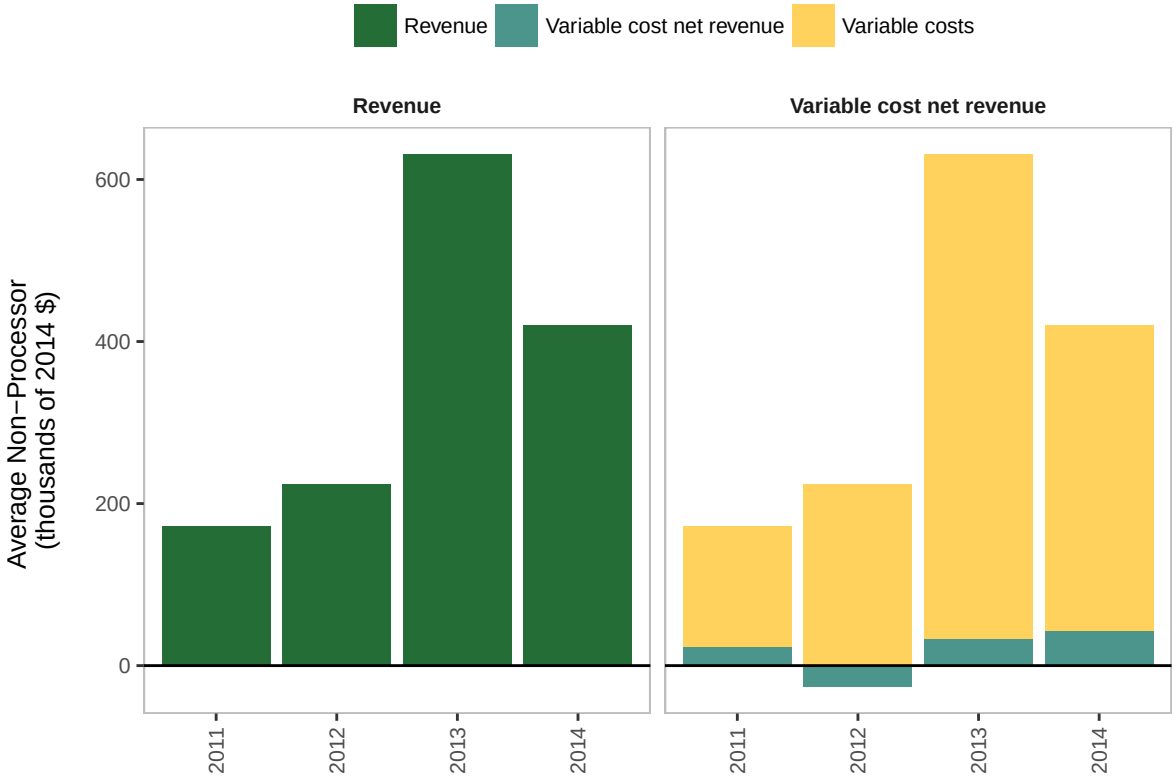

Figure 4: Average total reported revenue (left) and average variable cost net revenue (revenue minus variable costs) (right) for all groundfish operations of catch share non-processors (thousands of 2014 $). Non-processors were not required to submit EDC data until 2011.

[8] On the 2009 and 2010 forms, a company was permitted to leave most of the form blank if they did not process any groundfish or whiting. This was changed on the 2011 form (and subsequent forms) and all participants are now required to answer all questions. Thus, the data available for non-processors are from 2011 onward.

[9] For more details on non-processors, see Data Summaries Section 15.

Processors

The remaining figures, tables, and discussion from this point forward within the Overview pertain only to catch share processors.

Production Workers

The labor force of production workers at these companies fluctuates throughout the year due to fishing seasons and the portfolio of species being processed. Facilities employ more workers in months when purchase and production volumes are highest. Employment also increases during the winter months during crab season in some years (Figure 5). Production workers include on-site workers up through the line-supervisor level who are engaged in processing, assembling, inspecting, packaging, maintenance, and similar activities.[10] In 2014, catch share processors employed the greatest number of production workers in the month of August, with 2,117 total workers across the sector and an average of 132 per company. The fewest production workers were employed in February, with 914 total workers across the sector and an average of 57 per company. Data suggest that the months of heaviest operations may be shifting to later in the calendar year, from June and July in 2009 to August and September in 2014.

In addition to production workers, catch share processors have non-production employees, which include on-site supervisors and individuals responsible for sales, advertising, credit, collection, record keeping, and similar activities.[11] In 2014, these companies employed an average of 11 non-production employees per company. Generally, non-production employees are employed for the entire calendar year, while many production workers are employed seasonally.

[10] See Section 3.1 of the Data Summaries for more details.
[11] See Section 3.2 of the Data Summaries for more details.

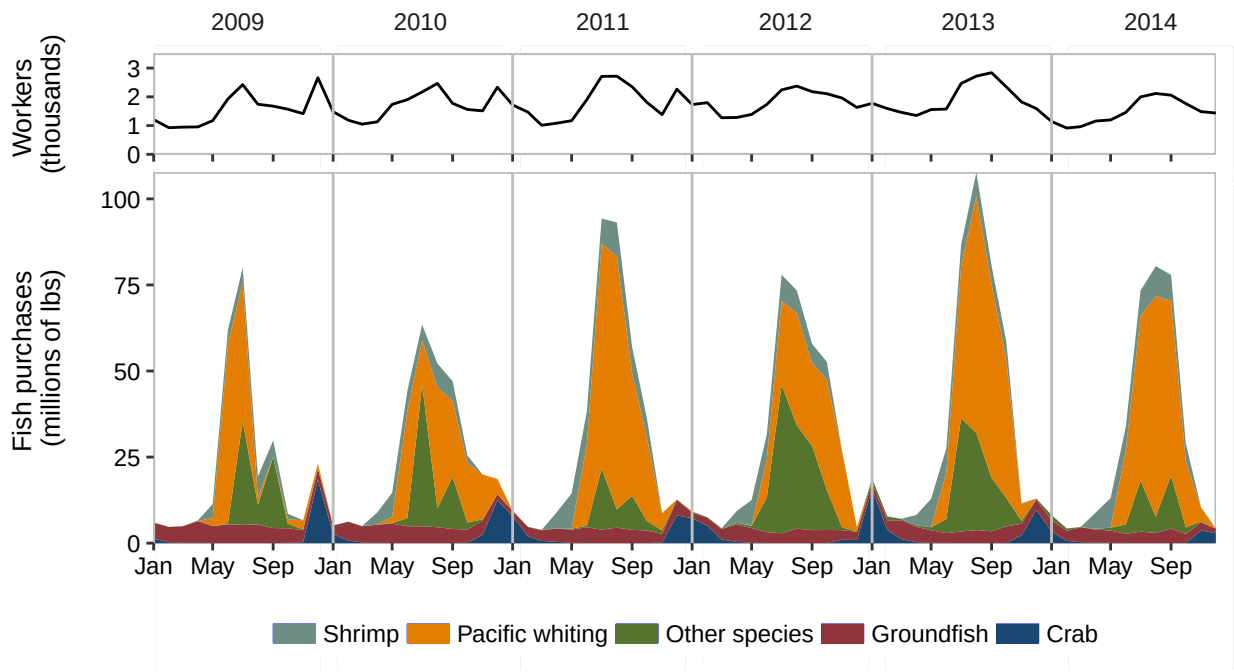

Figure 5: Number of production workers employed (thousands) (top) and total pounds purchased by catch share processors in each month by species group (millions of lbs) (bottom).

The average hourly compensation for production workers was $16.96 in 2014, a 14% increase compared to the baseline period. On an annual basis, production worker compensation per position was $29,576 in 2014, a 28% increase compared to the baseline period. The average hourly compensation for non-production employees was $44.19, an increase from $33.78 in the baseline period. Annual non-production employee compensation per position was $88,671 in 2014, a 19% increase between the baseline period and 2014.

Regional Production

Catch share processors produce seafood products in facilities all along the West Coast, and the production value varies by state (Figure 6). In Oregon in 2014, Pacific whiting was the largest component of both production volume (83 million lbs.) and value ($60.9 million). California generated the highest revenue from crab production ($25.7 million) but produced the largest volume of non-whiting groundfish (4.2 million lbs.). In Washington, products made from other species generated the highest production volume (4.4 million lbs.) and value ($14.5 million). The amount of seafood produced in California was much lower than in Washington and Oregon in 2014; however, total production value from fish in California was similar to Washington due to the high value of crab.

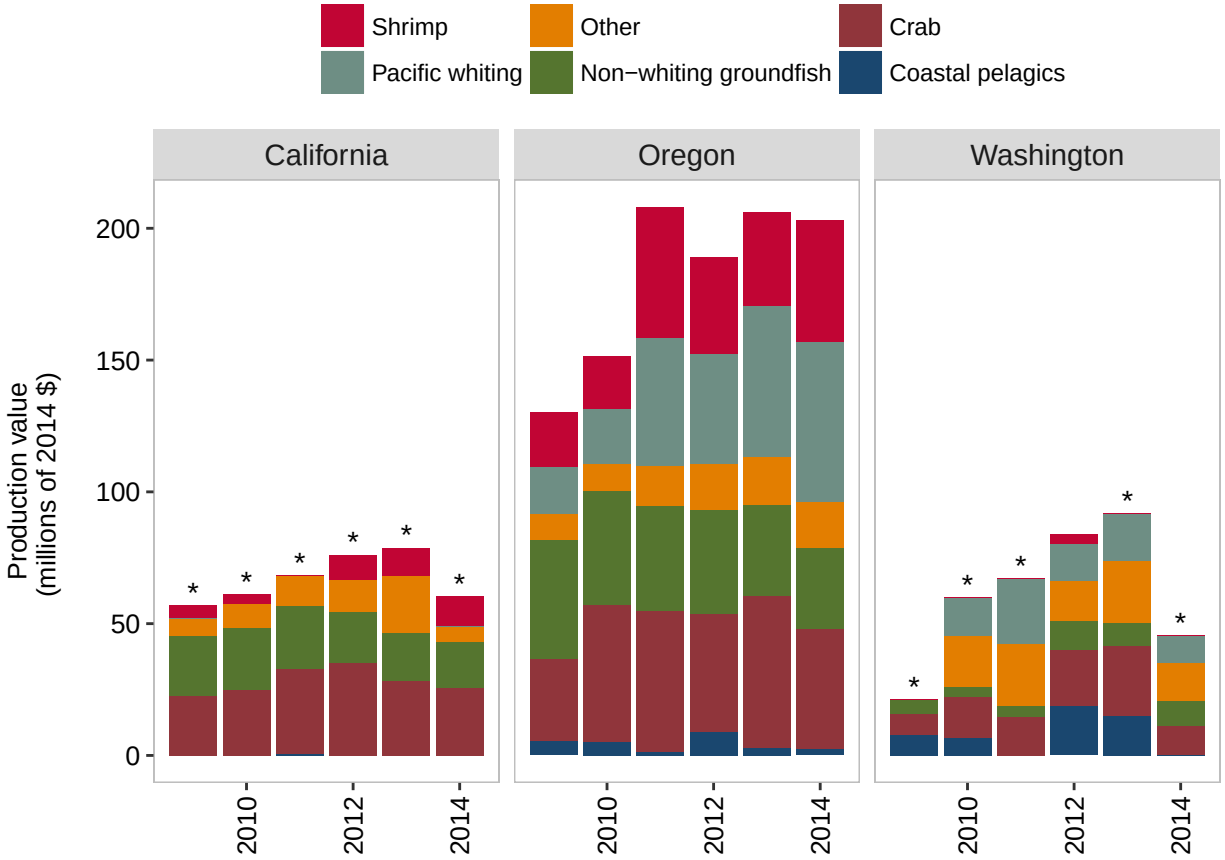

Figure 6: Total production value of fish produced by catch share processors in each state, excluding unprocessed fish (millions of 2014 $). *Some values are suppressed to protect confidential information.

Economic Indicators

Economic indicators, such as revenue, costs, and net revenue are presented for all operations (catch share and non-catch share) of catch share processors. Then, to better understand production of specific species, further analysis is conducted, separating Pacific whiting (page 20) from other groundfish (page 25). Measures presented include product types, markups, costs, and net revenue.

Revenue

Catch share processor earnings come from fish sales, offloading revenue, custom processing revenue, and revenue from leasing or selling quota. Average revenue per company was approximately $24.9 million in 2014 (a 70% increase compared to the baseline period). In 2014, nearly all revenue was made up of fish product sales (99.6%). Since the baseline period, average annual production value per pound (the ratio of annual production value to annual production weight) has increased for salmon, crab, dover sole, petrale sole, and lingcod (Figure 7).

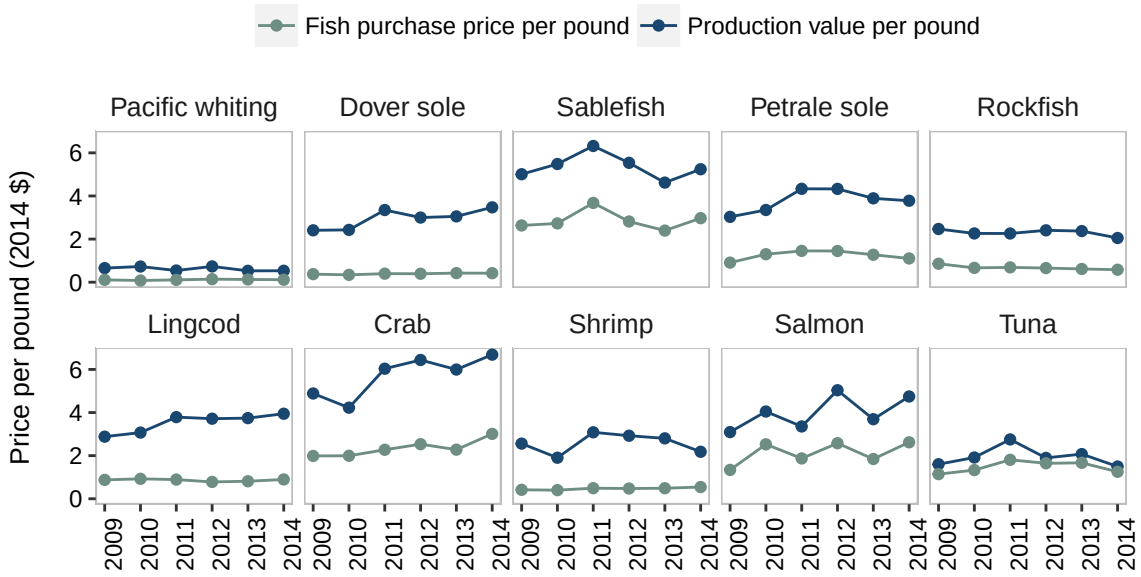

Figure 7: Industry average production value and fish purchase price per pound for select species (2014 $).

Costs

Variable costs

Costs are separated into two categories: variable costs and fixed costs. Variable costs comprise the majority of a catch share processor's total expenditures (94% in 2014) and include items such as fish purchases, additives, labor, and utilities. Variable costs vary with the level of fish production and averaged approximately $21.6 million per company in 2014, an 82% increase compared to the pre-catch share baseline period. Variable costs per output pound were $2.75 in 2014, a 35% increase compared to the baseline period.

The largest expense was the cost of fish purchases, primarily from vessels but also from other fish buyers, which amounted to an average of 69% of variable costs in 2014. The next largest expense categories for catch share processors were labor (17% of costs), packing materials (3%), and utilities (3%) (Figure 8). Average labor expenses have increased since the implementation of the catch share program, likely due, in part, to an increase in fish production. Average expenses on utilities, freight, and off-site product freezing and storage have also gradually increased since the baseline period.

Monitoring costs were approximately $19,000 per company in 2014 and include shoreside catch monitors who ensure that total landings are accurately sorted, weighed, and recorded on fish tickets. Since the implementation of the catch share program in 2011, catch monitors have been required for deliveries of both catch share Pacific whiting and catch share non-whiting groundfish.[12] In 2011 and 2012, the cost of catch monitors was subsidized at $41 per hour with a maximum of $328 per day. This subsidy decreased to $27 per hour and $216 per day in 2014.

[12] In 2008, there was partial catch monitor coverage of Pacific whiting deliveries, which was paid for by industry. In 2009 and 2010, all deliveries of Pacific whiting to a shorebased first receiver were verified by catch monitors, funded entirely by industry.

Fixed costs

Fixed costs include capitalized expenditures on buildings, machinery, processing equipment, rental or lease of buildings and other structures, and repair and maintenance on facility buildings, machinery, and equipment. In general, these costs do not vary with fish production as much as variable costs. Average total fixed costs have decreased since the pre-catch share baseline period, largely due to a decrease in capitalized expenditures, as other fixed costs, such as rent and repairs, have increased during this period. Fixed costs made up about 6% of total annual expenditures for catch share processors in 2014, and averaged $1.45 million, which is a decrease of 25% compared to the baseline period.

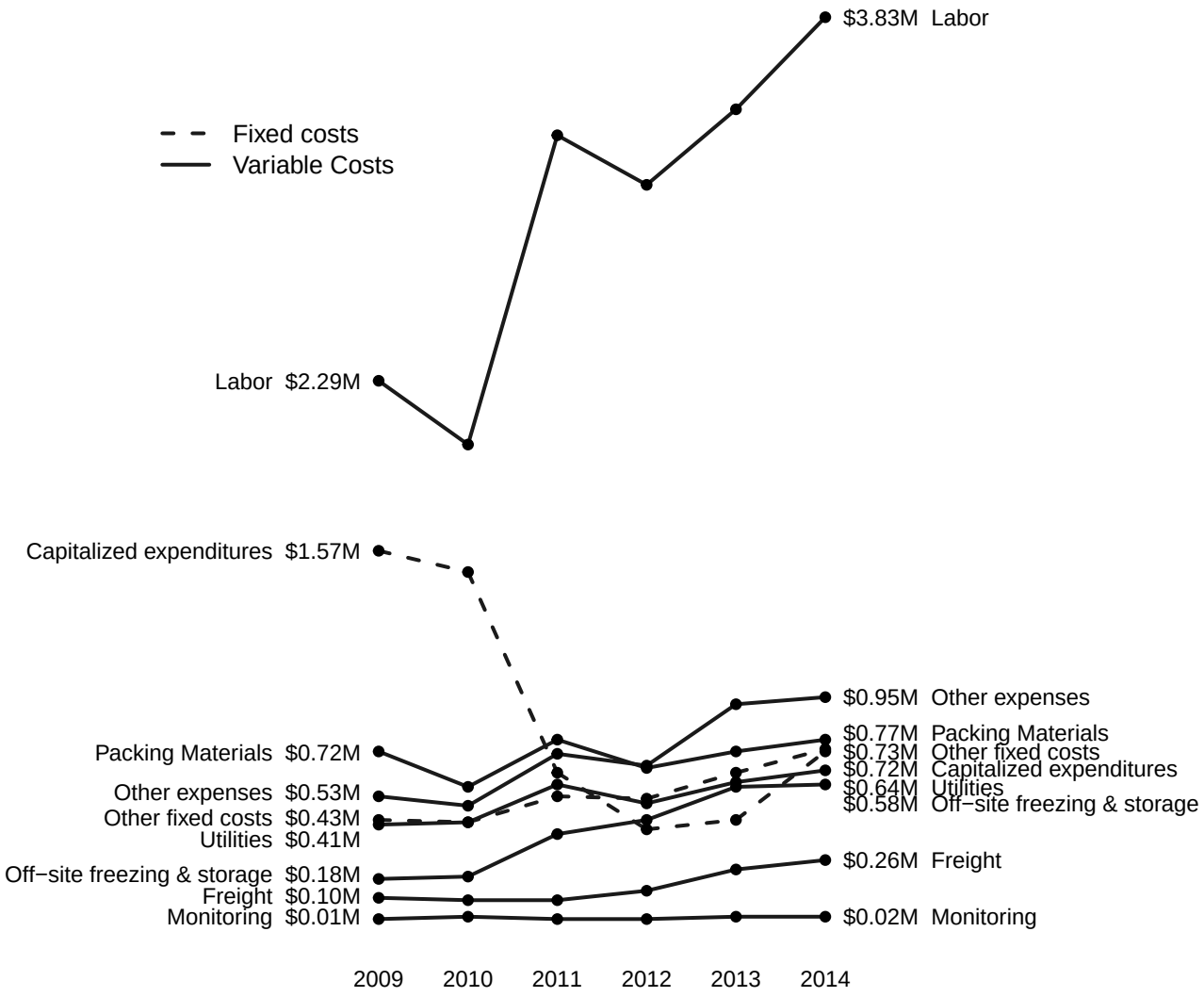

Figure 8: Average fixed (dashed line) and variable (solid line) costs per catch share processor (millions of 2014 $). Fish purchase costs are not displayed on the figure; they averaged $7.2 million in 2009 and $14.5 million in 2014.

Net Revenue

The EDC Program measures the net economic benefits of the catch share program by reporting two types of net revenue. The first is variable cost net revenue, which is revenue minus variable costs. The second is total cost net revenue, which is revenue minus both variable and fixed costs.[13] To provide a complete picture of the changes that have occurred over time, both net revenue measures are presented at two scales. Figure 9 shows the average net revenue per company while Figure 10 shows the industry-wide net revenue (total value generated by all catch share processors). It is important to note that the EDC forms aim to capture only costs that are directly related to facility maintenance and processing operations, and not costs related to activities or equipment beyond the facility. Therefore, the net revenue reported here is an overestimate of the true net revenue.[14]

When the fixed and variable costs associated with receiving and processing fish are accounted for, the average total cost net revenue for all operations (catch share and non-catch share) was $1.8 million for catch share processors in 2014, representing a 124% increase between the baseline period and 2014 (Figure 9). Considering only the costs that vary directly with fish production, the average variable cost net revenue of catch share processors was $3.3 million, representing a 19% increase between the baseline period and 2014. While the 2014 average revenue and average variable costs are 70% and 82% higher than the baseline period, respectively, fixed costs are 25% lower. Therefore, the rise in average total cost net revenue is a result of reduced expenditures.

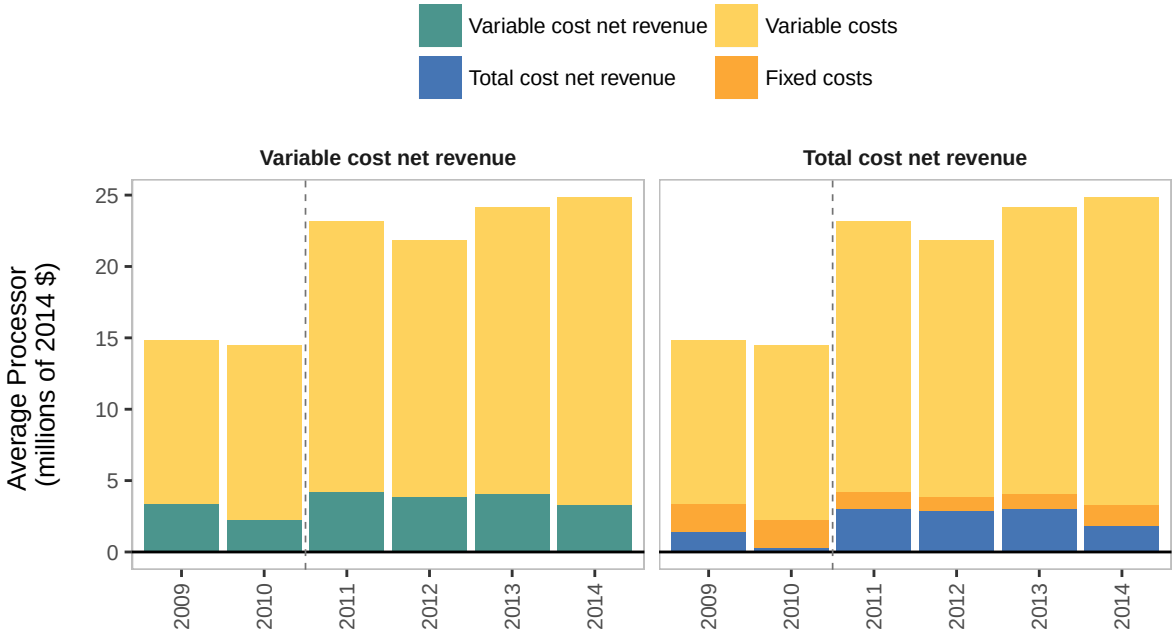

Figure 9: Average variable cost net revenue (revenue minus variable costs) (left) and total cost net revenue (revenue minus variable costs and fixed costs) (right) for all operations of catch share processors (millions of 2014 $). Dashed line represents the beginning of the catch share program.

[13] See Figure 8 for a categorization of variable versus fixed costs.
[14] See Section 12 of the Data Summaries for more information.

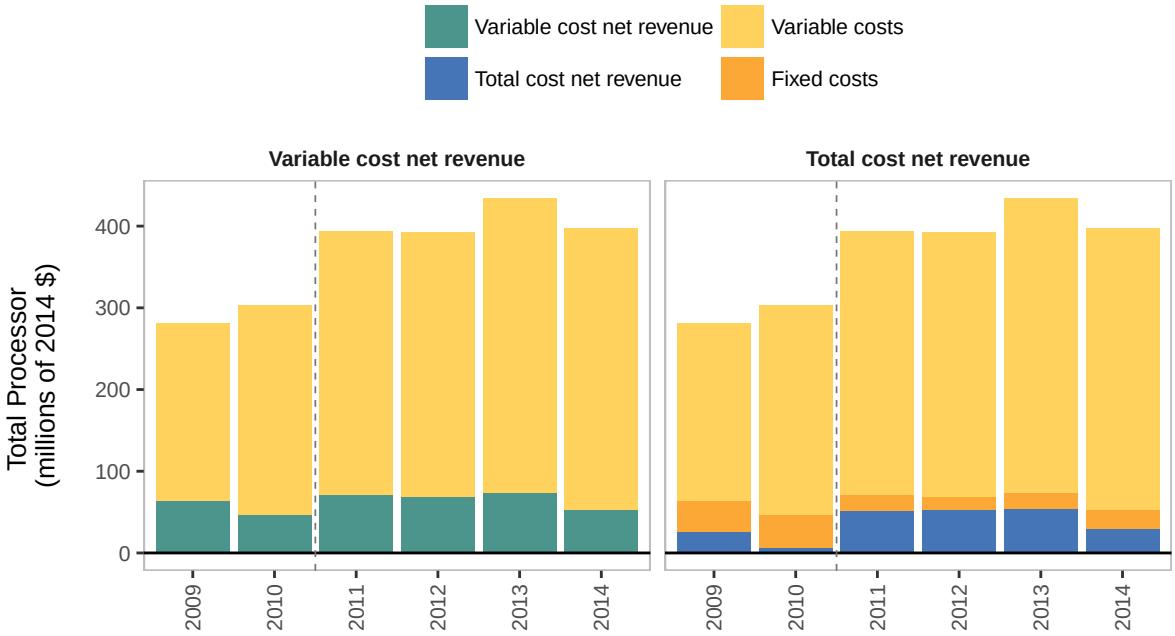

Figure 10: Industry-wide total variable cost net revenue (revenue minus variable costs) (left) and total cost net revenue (revenue minus variable costs and fixed costs) (right) for all operations of catch share processors (millions of 2014 $). Dashed line represents the beginning of the catch share program.

The industry-wide total cost net revenue for all catch share processors in 2014 was $29.5 million and industry-wide total variable cost net revenue was $52.8 million (Figure 10).

Fish Production

In order to understand changes specific to production of different species groups, fish production by catch share processors is separated into shoreside Pacific whiting operations and non-whiting groundfish operations, described in the following pages. Cost and revenue information collected for all operations is allocated to Pacific whiting or non-whiting groundfish production using cost disaggregation (See Appendix A). Some of the information on the EDC form for shorebased processors is collected at the species level (e.g. fish production information), not the fishery level like the catcher vessels. Therefore, we allocate costs to species groups rather than fisheries.

Shoreside Pacific whiting

The domestic Pacific whiting fishery grew rapidly in the 1990s after the United States banned foreign vessels from processing Pacific whiting harvested off the West Coast. The fishery received Marine Stewardship Council (MSC) certification[15] in 2009 and demand in the international market has continued to rise.

[15] The MSC certification indicates that the West Coast Pacific whiting fishery has met the standard for "good management practices to safeguard jobs, secure fish stocks for the future and to help to protect the marine environment".

The Pacific whiting fishery has subsequently been transformed into one of the largest fisheries by volume in the United States. In 2014, nearly 62,000 metric tons of Pacific whiting worth more than $100 million were exported from the United States[16] (Figure 11). Since 2000, most of these exports went to the European Union, followed by Russia and Ukraine. In 2014, Russia implemented trade sanctions against Europe and the United States, which could lead to declining demand for whiting exports. To date, it is unknown when these sanctions will be lifted.

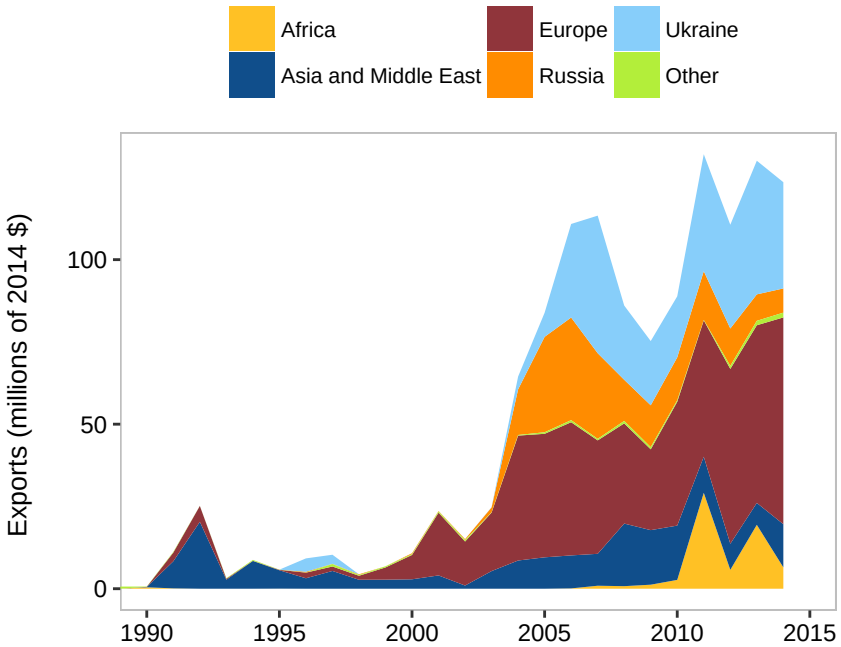

Figure 11: Total exports of fresh and frozen Pacific whiting (including mothership, catcher-processor, and shoreside production) from the U.S by recipient region (millions of 2014 $).

Eight processors participated in the shoreside Pacific whiting fishery in 2014 compared with 12 during the baseline period. Among those processors with Pacific whiting operations, there were also fewer that produced non-whiting groundfish and other species. Each processor received Pacific whiting from an average of 7 vessels.

Product type, weight, and value

The EDC form collects information about seven Pacific whiting product types: fillets, frozen whole, headed-and-gutted, surimi, roe, unprocessed, and other. Much of the total Pacific whiting produced in 2014 was headed-and-gutted (51%), a 33% decrease between the baseline period and 2014 (Figure 12). The decrease in headed-and-gutted Pacific whiting since the baseline years has led to a larger percent of all other product types. While filleted Pacific whiting commands the highest price, headed-and-gutted Pacific whiting is the highest valued product in terms of total revenue generated by processors.

Processing Pacific whiting resulted in $71.5 million in total sector-wide production value in 2014. These processors also earned revenue from processing shrimp (21% of total revenue), crab (17%), and non-whiting groundfish (12%) as well as other species.

This certification has opened new markets, largely in the European Union, for Pacific whiting.

[16] NMFS Science and Technology Commercial Fisheries Statistics, http://www.st.nmfs.noaa.gov/commercial-fisheries/foreign-trade/index.

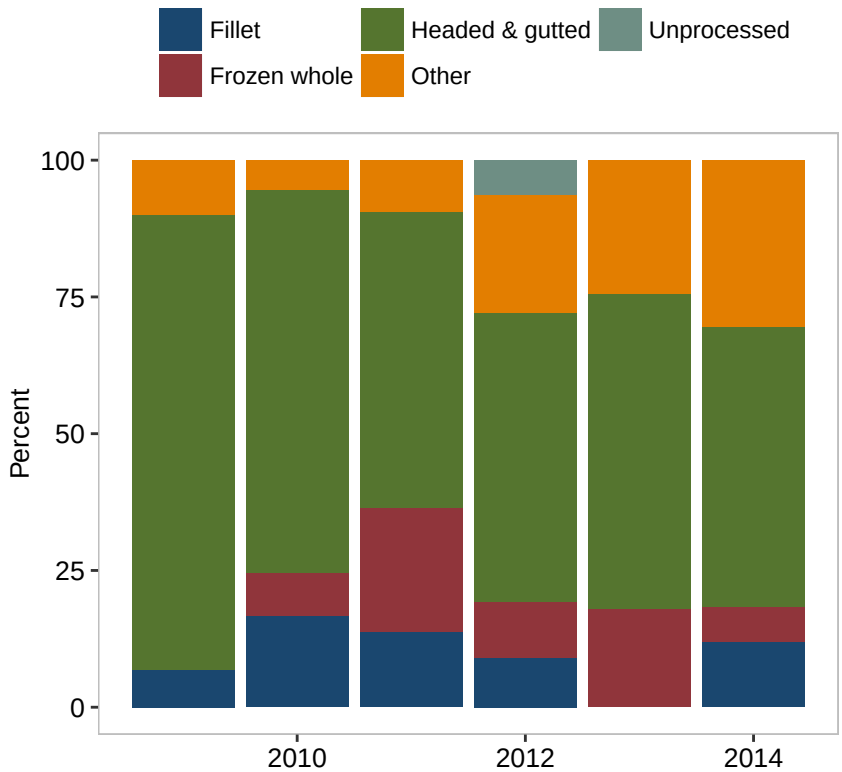

Figure 12: Pacific whiting product types as a percent of industry-wide production volume. The "other" category includes surimi and roe products, as well as frozen whole in 2009 and unprocessed in all years except 2012, to protect confidential data.

Markup

While the average fish purchase price of Pacific whiting is higher under catch shares than in the baseline years, the average production value per pound is lower under catch shares (Figure 7). Markup, a measure of value-added, is the ratio of the value of fish produced to the cost of fish purchased. The average markup for shoreside Pacific whiting increased between 2013 and 2014 from 2.6 to 2.8, but was highest during the baseline period at 3.7. (Figure 13).

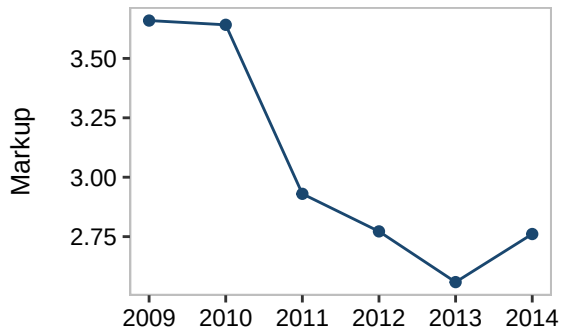

Figure 13: Industry average markup for Pacific whiting.

Costs

Average revenue and variable costs for Pacific whiting production increased substantially from 2009-2010 levels, mainly due to an increase in the catch limit for Pacific whiting and therefore a higher production volume. Average variable costs were $7.4 million. Variable cost per output pound of Pacific whiting was $0.49 in 2014. Labor, packing materials, and utilities are the largest components of variable expenses specific to Pacific whiting operations (Figure 14). Average fixed costs were $910,196.

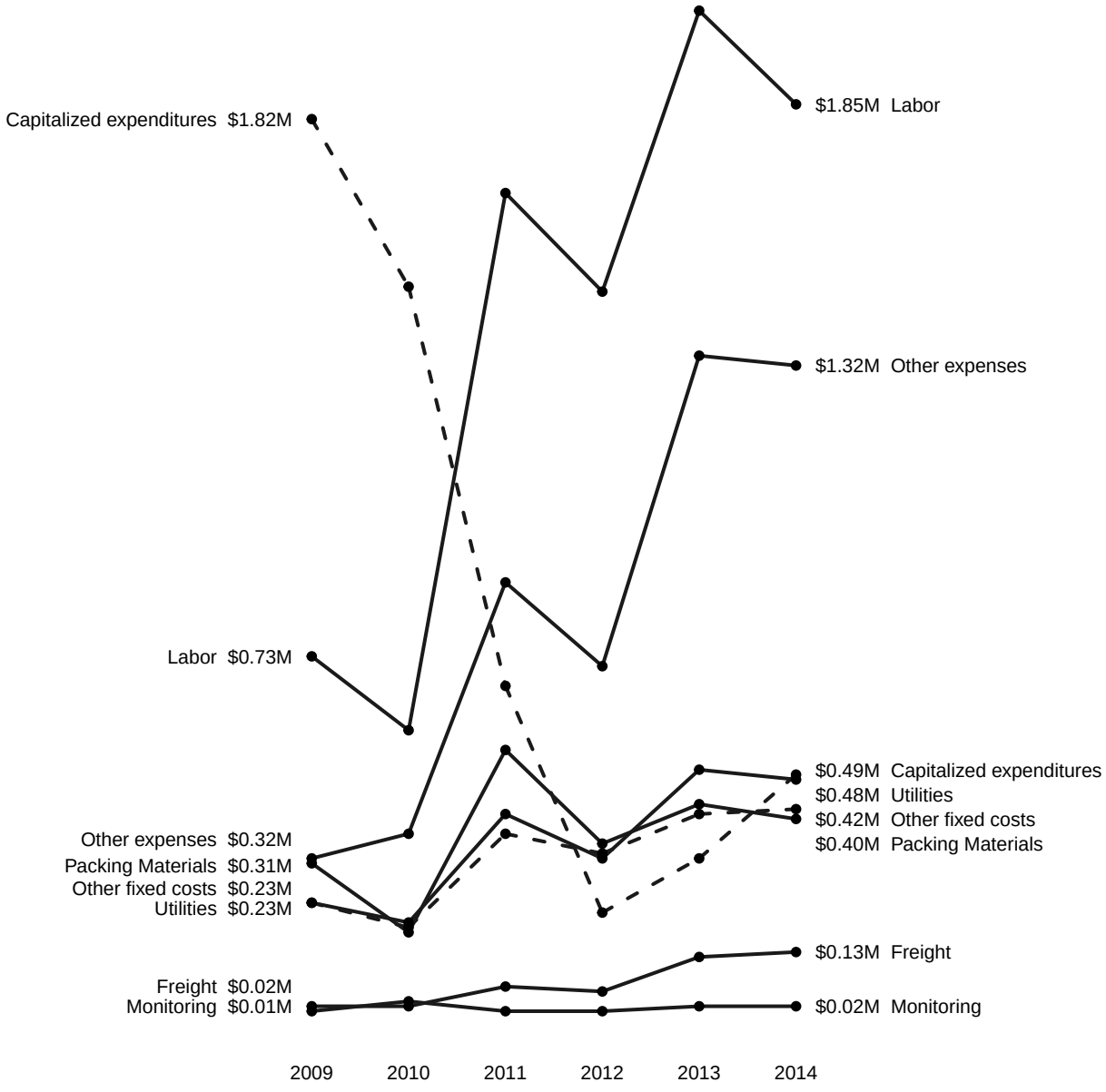

Figure 14: Average fixed (dashed line) and variable (solid line) costs per processor from production of shoreside Pacific whiting (millions of 2014 $).

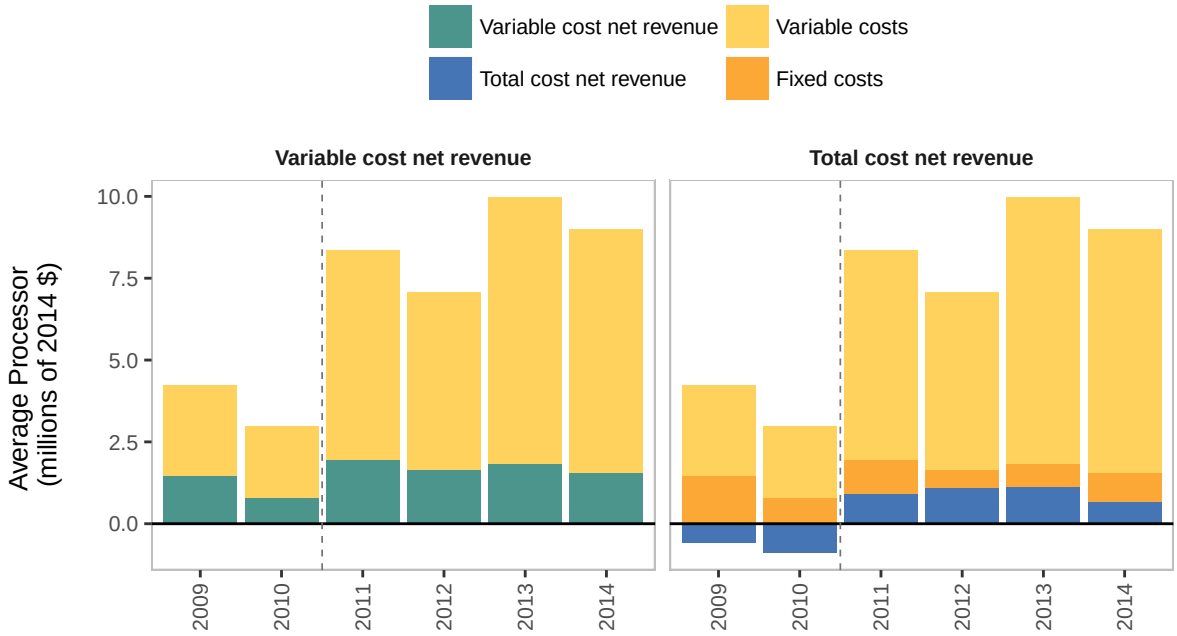

Figure 15: Average variable cost net revenue (revenue minus variable costs) (left) and total cost net revenue (revenue minus variable costs and fixed costs) (right) from production of shoreside Pacific whiting (millions of 2014 $). Dashed line represents the beginning of the catch share program.

Net Revenue

In 2014, average revenue per company for Pacific whiting production was $9 million, average variable cost net revenue was $1.58 million, and average total cost net revenue was $666,049. Average variable cost net revenue and total cost net revenue increased from average baseline period values of $1.1 million and -$733,058, respectively.

Non-whiting groundfish

Twenty-two processors produced non-whiting groundfish in 2014, with each processor receiving fish from 15 vessels on average. The number of non-whiting groundfish processors is very similar to the baseline period, but decreased from a high of 28 processors in 2011. Non-whiting groundfish include flatfish (e.g., petrale sole and dover sole), roundfish (e.g., sablefish and lingcod), and rockfish. Every year, tons of millions of dollars worth of sablefish is exported from the West Coast to countries around the world, primarily Asia and the Middle East (Figure 16).

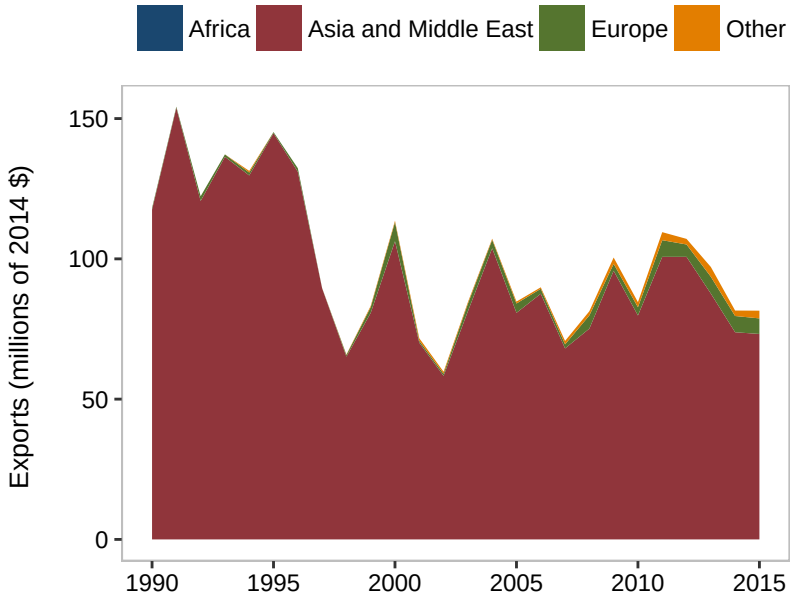

Figure 16: Total exports of sablefish from the West Coast by recipient region (millions of 2014 $).

Product type, weight, and value

Non-whiting groundfish product types reported on the EDC form include processed fresh, frozen, unprocessed, and other. Most of the non-whiting groundfish is sold fresh, except for sablefish which is primarily frozen (Figure 17). For dover sole, petrale sole, and rockfish, the percentage of fresh product has generally decreased and the percentage of unprocessed product has increased since 2009. The opposite trend can be seen for lingcod, where the proportion of fresh product is higher compared with the baseline period.

In 2014, most processors with non-whiting groundfish operations also processed crab and other non-catch share species. Processing non-whiting groundfish resulted in $33 million in total production value in 2014. These processors also earned revenue from processing Pacific whiting (27%), processing shrimp (21%), and processing crab (17%) as well as other species.

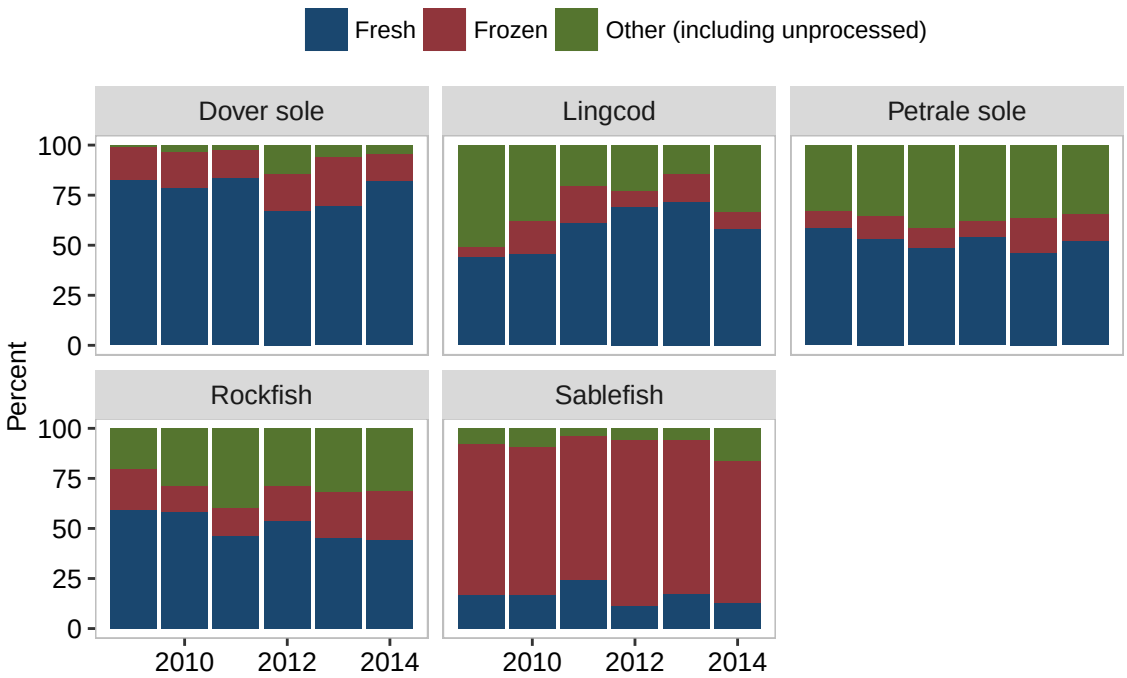

Figure 17: Product types as a percent of industry-wide production volume for select groundfish species.

Markup

The industry average markup for non-whiting groundfish was 1.6 in 2014, the same as in 2009. Figure 18 shows markup rates by species and how those rates have changed each year since the pre-catch share baseline period.

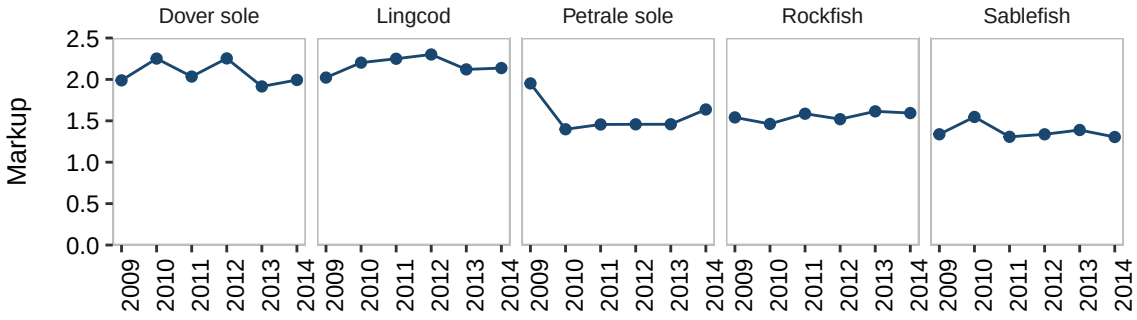

Figure 18: Industry average markup for select groundfish species.

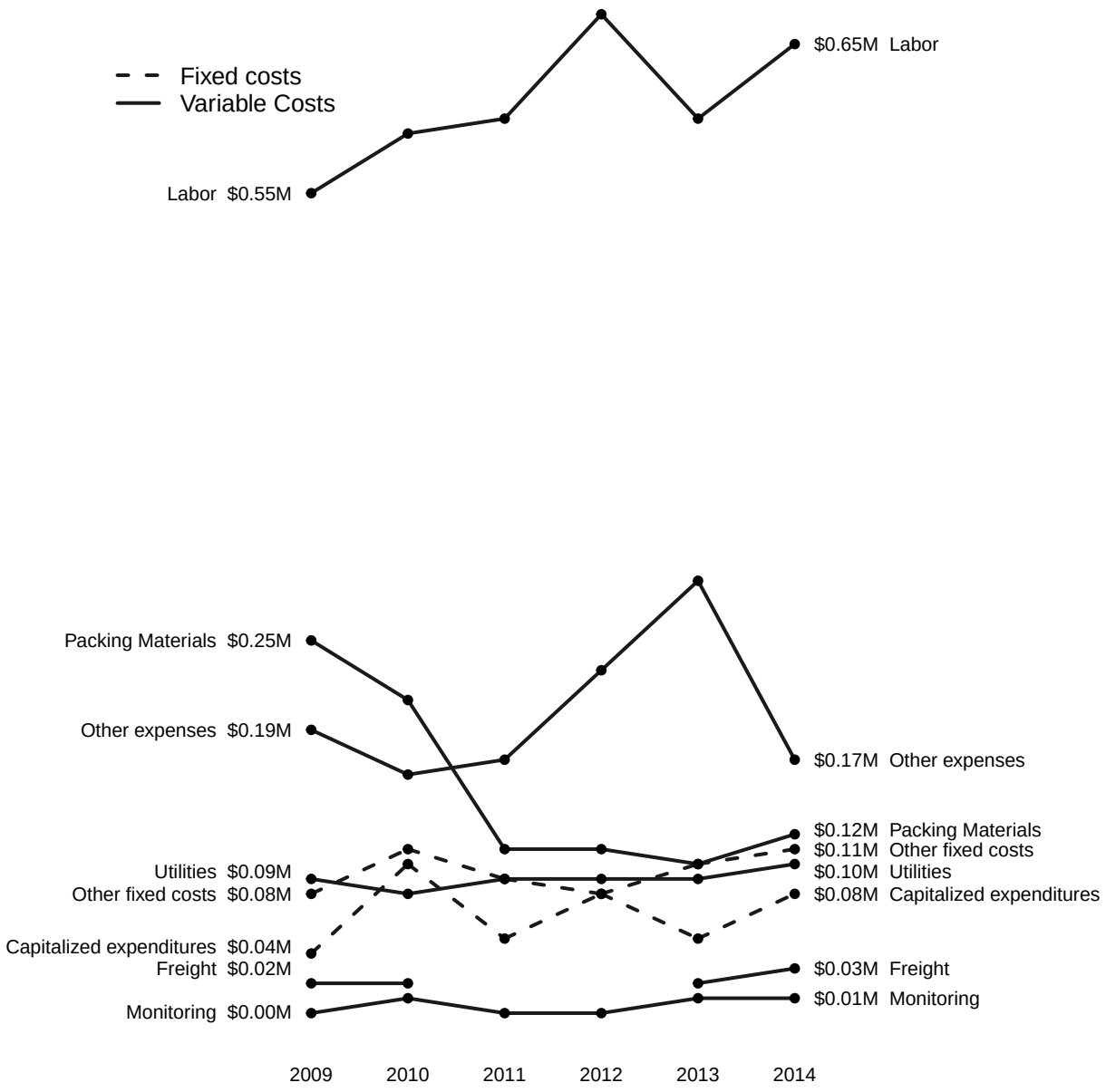

Figure 19: Average fixed (dashed line) and variable (solid line) costs per processor from production of non-whiting groundfish (millions of 2014 $).

Costs

Costs for non-whiting groundfish operations are smaller compared to those of Pacific whiting operations, but the relative contributions from various cost categories are comparable. Namely, expenses on labor, packing materials, and utilities are among the highest costs, while monitoring and freight are the lowest (Figure 19). Average variable costs were $3.8 million. Variable cost per output pound of non-whiting groundfish was $2.81 in 2014. Average fixed costs were $198,232.

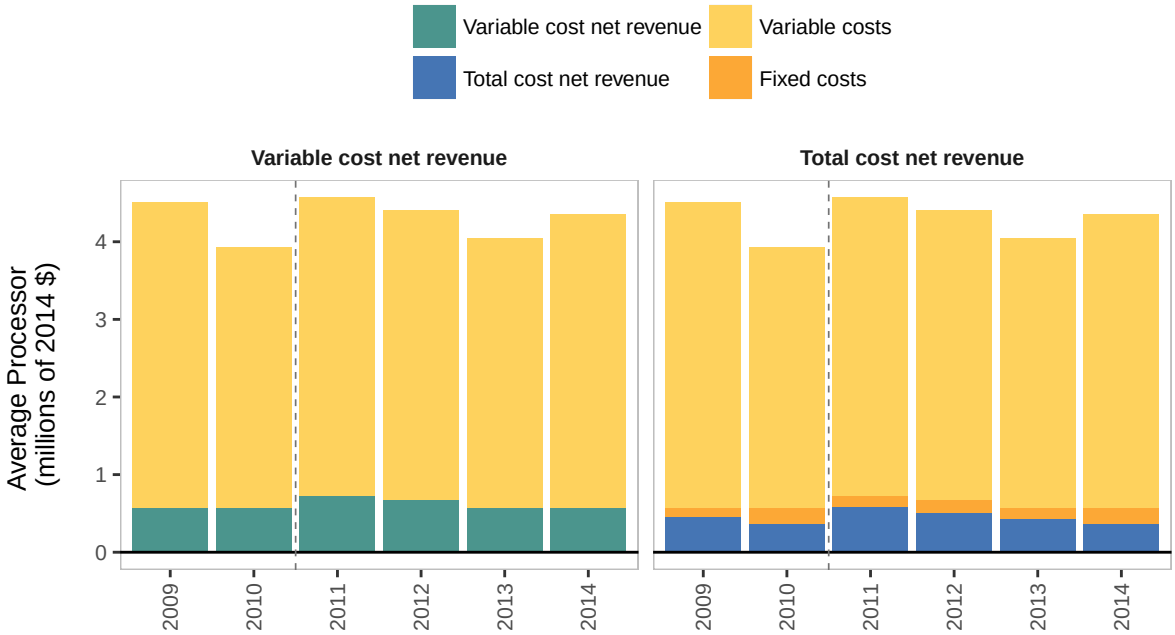

Figure 20: Average variable cost net revenue (revenue minus variable costs) (left) and total cost net revenue (revenue minus variable costs and fixed costs) (right) from production of non-whiting groundfish (millions of 2014 $). Dashed line represents the beginning of the catch share program.

Net Revenue

Average revenue for non-whiting groundfish production was $4.4 million per company, average variable cost net revenue was $572,000, and average total cost net revenue was $374,000 (Figure 20). Average variable cost net revenue in 2014 is the same as the baseline period and total cost net revenue decreased 8%.

First Receiver and Shorebased Processor Report

FIRST RECEIVER AND SHOREBASED PROCESSOR REPORT

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First Receiver and Shorebased Processor Data Summaries

1 Introduction

1.1 Background

The US West Coast groundfish fishery takes place off the coasts of Washington, Oregon and California, and is comprised of over 90 different species of fish. The fish are harvested both commercially and recreationally. The commercial fishery has four components: limited entry with a trawl endorsement, limited entry with a fixed gear endorsement, open access, and tribal. In January 2011, the West Coast Limited Entry Groundfish Trawl fishery transitioned to the West Coast Groundfish Trawl Catch Share Program. The catch share program consists of cooperatives for the at-sea mothership (including catcher vessels and motherships) and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet.[1]

The Economic Data Collection (EDC) Program[2] was implemented as part of these new regulations to monitor the economic effects of the catch share program. Annual economic data submissions are required from all fishery participants: catcher vessels, motherships, catcher-processors, and first receivers and shorebased processors §50 CFR 660.114. Baseline, pre-catch share, data were submitted in 2011 for the 2009 and 2010 operating years. Data for the first year the fishery operated under the catch share program (2011) were submitted in 2012. The most recent data (2014) were collected in 2015.

The EDC Program has enhanced the quantity and quality of economic information available for analysis and the management of the West Coast groundfish trawl fishery. While costs and earnings data are

[1] Information about the West Coast Groundfish Trawl Catch Share Program is available online at http://www.westcoast.fisheries.noaa.gov/fisheries/groundfish_catch_shares/.

[2] Additional information on the EDC Program, including the EDC data collection forms can be found at www.nwfsc.noaa.gov/edc.

available for shorebased catcher vessels starting in 2004,[3] this is the first data collection from the first receiver and shorebased processor sector. This report summarizes the 2009-2014 EDC first receiver and shorebased processor survey data, and with its companion reports covering the other sectors, is the third in what is expected to be an annual series of reports. EDC economists will expand and refine the scope and methods used with each new annual publication.

1.2 Understanding the report

The unit of analysis identified in the summary tables is the first receiver site license owner, or "company." Owners of multiple first receiver site licenses are required to submit a form for each site (facility). To maintain analytical consistency, reduce the reporting burden for participants, and protect confidential data, data are aggregated to the company level for businesses that own multiple facilities with first receiver site licenses. Figure 21 shows first receiver site license owners and locations in 2014.[4]

First receiver and shorebased processor operations range from independent catcher vessel owners who unload and truck their own fish, to large multi-facility processing companies with a wide range of product offerings. Some respondents who provide information do not own a physical processing facility and thus do not incur many of the costs on the EDC form. In order for the information contained in this report to be more meaningful, the summary statistics for those companies who process fish and those companies who do not process fish are reported in two separate sections.[5] This report refers to EDC companies that have processing activity as EDC Processors, and refers to EDC companies that have no processing activity as EDC Non-Processors. Figure 22 illustrates how these designations are determined for the Data Summaries and Analysis, and also shows the designations for the Overview. Table 1.1 shows the numbers of processing and non-processing companies that fill out EDC forms each year. On the 2009 and 2010 forms, a company was permitted to leave most of the form blank if they did not process any groundfish or whiting. This was changed on the 2011 form (and subsequent forms) and all participants are now required to answer all questions. Thus, the data available for EDC Processors are from companies who processed groundfish in 2009 and 2010, and from companies who processed groundfish or any other fish from 2011 onward. The data available for EDC Non-Processors in this report are from 2011-2014.

[3] Lian, C.E. 2010. West Coast limited entry groundfish trawl cost earnings survey protocols and results for 2004. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-107, 35 p.

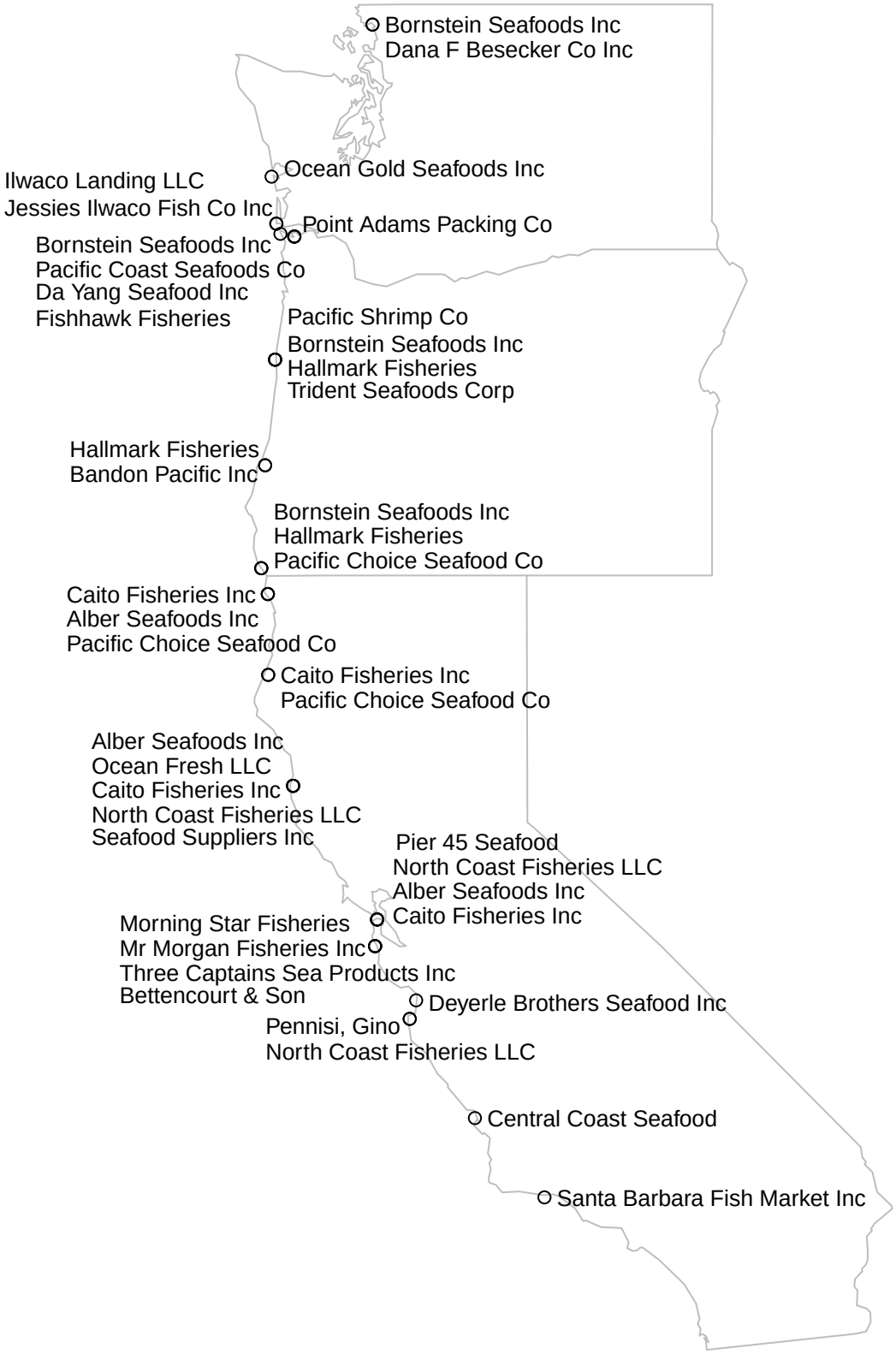
[4] First receiver site license information was obtained here: https://www.webapps.nwfsc.noaa.gov/apex_ifq/f?p=112:45:0::NO.

[5] In the EDC First Receiver and Shorebased Processor Report (2009-2011), summary statistics were based on all survey respondents including those that did not process fish.

Table 1.1: EDC Processors and Non-Processors. Number of companies that reported processing activity and number of companies that reported no processing activity by survey year (N = number of companies, % = percent of all companies that submitted a form in survey year).

	2009		2010		2011		2012		2013		2014	
	N	%	N	%	N	%	N	%	N	%	N	%
EDC Processors	20	100.0%	22	100.0%	24	70.6%	24	72.7%	24	72.7%	23	82.1%
EDC Non-Processors	—	—	—	—	10	29.4%	9	27.3%	9	27.3%	5	17.9%

Figure 21: 2014 first receiver site license owners and locations.[4]



For questions not applicable to a company's particular business operation, the participant is instructed on the form to fill in "Not Applicable" or "NA". For each value displayed in the summary data tables, N is displayed. In most cases, N represents the number of responses to the question that are not "NA" and not zero, unless noted otherwise. If a particular category had only "NA" responses for all participants, a zero is used. The "—" symbol represents cases where the information was not requested on the form for that survey year.

Although participants are identified on a calendar year basis, they complete the form using information based on the fiscal year of the entity. Currently, data are presented for survey year (fiscal year), and data assigned to a survey year may not overlap completely with the calendar year. Information obtained from outside of the EDC Program are adjusted to match the fiscal year provided on each form.

All data submitted via the EDC Program are confidential under 402(b) of the Magnuson- Stevens Act (16 U.S.C. 1801, et seq.) and under NOAA Administrative Order 216-100. In order to protect these data, a rule of three and a rule of 90-10 are implemented. The rule of three requires a response from at least three companies in order to show a summary statistic. The 90-10 rule requires that no single company's value should comprise over 90 percent of the value displayed. The tables show a "***" for data points where there were less than three companies reporting the information, and/or if one company's responses accounted for greater than 90 percent of the average value. Zeroes are shown if all companies reported zeroes. More information about how confidential data are protected in the EDC Program can be found in the Administration and Operations report. Simple means are reported for statistics that denote the performance of an average entity (i.e., net revenue) while weighted means are reported for statistics that describe characteristics of the fishery (i.e., ex-vessel prices, markup, etc.).

In order to track and assess the variation of data submitted by participants across any given variable or statistic, these reports include the coefficient of variation (CV) of the mean. The stacked dots included in the data tables provide information about the coefficient of variation (CV) of the mean. We use the following scoring:

- ˙ represents $CV < 0.5$,
- ⁝ represents $0.5 \leq CV < 1.0$,
- ⁝ represents $1.0 \leq CV < 2.0$, and
- ⁝ represents $2.0 \leq CV$.

For 2009-2014, the maximum CV for EDC Processors was 4.5, and the maximum CV for EDC Non-Processors was 2.2.

Unlike the Overview, all numbers reported in the Data Summaries are generated from the raw responses received from participants and, therefore, are in nominal dollars.

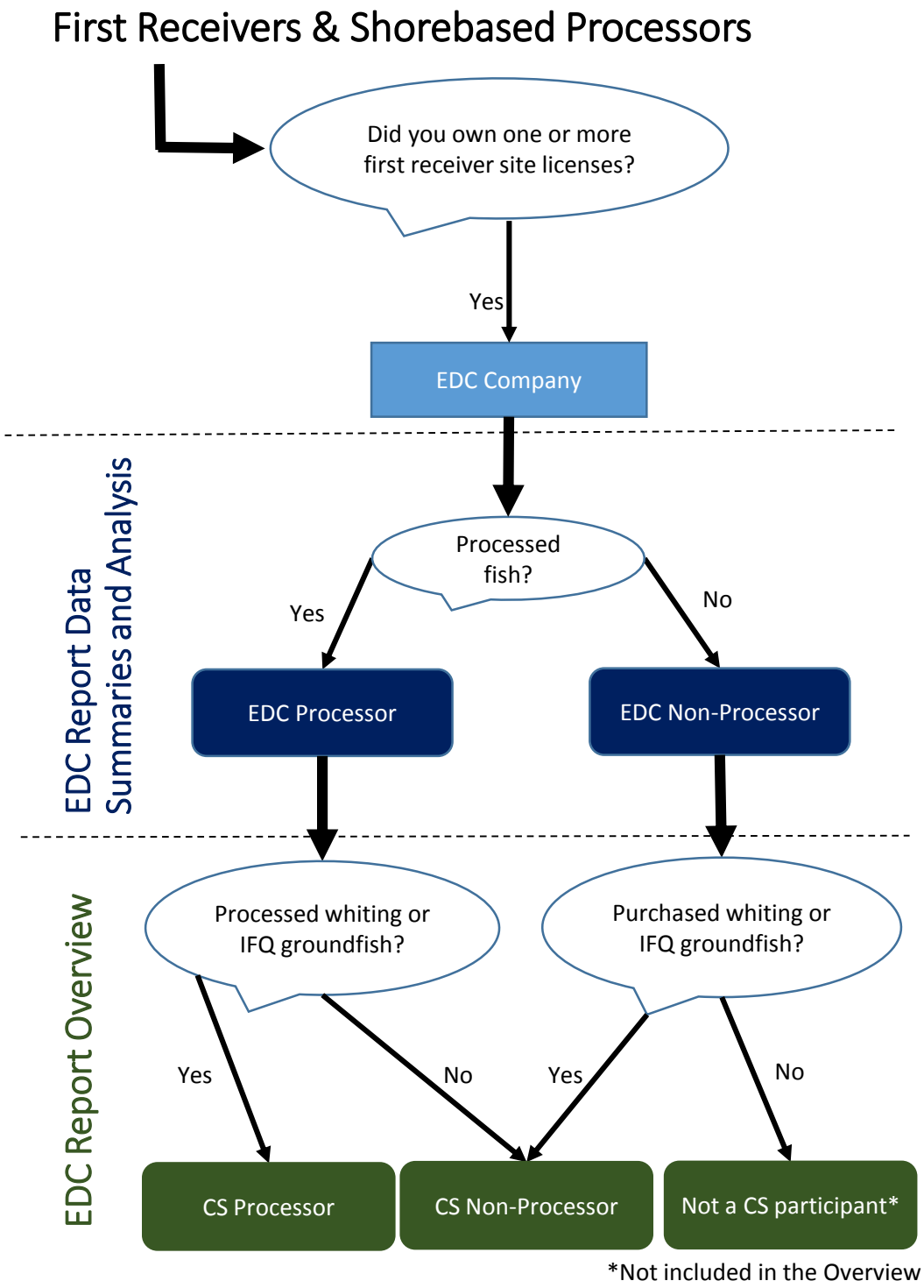


Figure 22: First receiver and shorebased processor classifications in this report.

1.3 Purpose of the report

This report, like the other four EDC reports,[6] has multiple objectives. The first is to provide basic economic data summaries that can be used for a variety of purposes associated with fishery management. Since much of the data collected are confidential under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 2007, the data are summarized as averages or totals for each question on the EDC forms. Thus summarized, the reports make the data available to the public for both research and informational purposes.

The second objective is to provide information about the performance of the catch share program. This includes information that can be used to monitor whether and to what degree the goals of the program are being met. These reports will serve as the basis for the 5-year review of the catch share program that is mandated in the MSA, as well as the NOAA Fisheries National Catch Shares Performance Indicators.

Third, the reports either provide or serve as the basis for economic models that will be used as part of the Pacific Fishery Management Council's (PFMC) biennial specification process for groundfish management. These models include the IO-PAC model,[7] as well as estimates of revenue, costs, and net revenue.

Lastly, and perhaps most importantly, the data reports are expected to provide a useful catalyst for feedback on the data collected and its analysis.

The Administration and Operations report describes the EDC Program administration and fielding of the surveys, the EDC forms, data QA/QC and data processing, and safeguarding confidential information. The other EDC reports provide basic data summaries for the catcher vessel, catcher-processor, and mothership sectors.

1.4 First receiver and shorebased processor form administration

Completion of EDC forms is mandatory for participants in the catch share program. The regulations for defining who is required to complete an EDC form differs between the baseline data collection (2009 and 2010) and all annual/ongoing data collections for 2011 onward. Under 50 CFR part 660 and section 402(a) of the Magnuson-Stevens Act (16 U.S.C. 1801, et seq.) all owners and lessees of a shorebased

[6] In addition to the first receiver and shorebased processor report, there are four companion reports:

- Economic Data Collection Program, Administration and Operations Report (October 2016)
- Economic Data Collection Program, Catcher-Processor Report, 2009-2014 (October 2016)
- Economic Data Collection Program, Catcher Vessel Report, 2009-2014 (October 2016)
- Economic Data Collection Program, Mothership Report, 2009-2014 (October 2016)

[7] Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

processor and all buyers that receive groundfish or whiting harvested with a limited entry trawl permit as listed in the Pacific States Marine Fisheries Commission's state fish ticket database were required to submit an EDC form in 2009 and 2010. Beginning in 2011, a first receiver site license was required to land catch share harvested fish. The regulation requires all owners of a first receiver site license in 2011 and beyond, and all owners and lessees of a shorebased processor (as defined under "processor" at 660.11, for purposes of EDC) that received round or headed-and-gutted catch share species groundfish or whiting from a first receiver in 2011 and beyond to submit an EDC form for that year. Owners of multiple facilities are required to submit a form for each processing facility. A first receiver site license application will not be considered complete until the required EDC form for that license owner associated with that license is submitted.

A calendar year is used to determine which facilities meet the criteria. For example, in 2015, data were collected from all owners of a first receiver site license in 2014. The forms are fielded on this schedule in order to allow participants the time necessary to complete their taxes, which may contain some information that is required on the EDC forms. Participants are identified using contact information provided by the West Coast Regional Office - Permit Office (Permit Office).

If a form has missing information, or the information provided on the form is believed to be incorrect, EDC Program staff attempt to contact the participant to correct the information. On occasion the participant cannot be reached or the participant cannot provide the missing information. In these cases, the missing or inaccurate data are treated on a case by case basis during analysis as documented in the Administration and Operations report. Data are validated and verified with external data sources whenever possible. These data sources include the Permit Office and state fish tickets.

Table 1.2: Survey response rates. Total forms owed, number of forms that were submitted, number of forms that are complete, and number of companies that submitted EDC forms by survey year.

Status	2009	2010	2011	2012	2013	2014
Total forms owed	55	58	50	53	53	46
Submitted forms	37	45	49	51	51	46
Complete forms	37	45	49	50	50	46
Companies that submitted forms	29	37	34	36	34	28

EDC Processors

This section of the report summarizes information on first receivers and shorebased processors that process fish: EDC Processors. Groundfish regulations (50 CFR 660.11) define a shorebased processor as "a person, vessel, or facility that engages in commercial processing... at a facility that is permanently fixed to land." In 2009 and 2010, only facilities that processed groundfish were required to fill out the entire form. In 2011 onward, all facilities with a first receiver site license were required to complete the entire form. There is a small number of facilities that were required to complete an EDC form in 2009 and 2010, however their data were not reported because they did not process groundfish during that period. These companies are only included for 2011 onward.

2 Facility Value

Processors provide information about the appraisal value of the facility, including market value and replacement value (Table 2.1).

Table 2.1: Value of facility. Average market and replacement value of facility from most recent appraisal (millions of $) (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Market value	$1.45˙	4	$1.16⁝	5	$1.65˙	3	$1.54˙	4	$4.78⁝	5	$5.84⁝	4
Replacement value	$4.97⁝	5	$4.14⁝	6	$6.34⁝	3	$6.34⁝	3	$4.46⁝	3	***	***

3 Employment

This section provides information about number of employees, number of hours worked, and labor costs. These figures include full, part-time, and temporary employees. Production workers and non-production employees are provided separately.

3.1 Production workers

Production workers include workers at the facility up through and including the line-supervisor level who are engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping, maintenance, repair, janitorial staff, product development, or transporting product on site. The EDC form asks for production worker employment figures for the week that includes the 12th day of the month, thus the following tables present an average weekly snapshot of employment that is assumed to be representative for each month throughout the year.

Table 3.1: Weekly employment: Number of production workers. Number of production workers for the week that includes the 12th of the month. (N = number of EDC Processors with non-zero, non-NA responses).

Month	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
January	64⁝	19	71⁝	21	84⁚	22	88⁝	21	89⁝	22	65⁝	21
February	49⁝	19	56⁝	21	73⁝	22	91⁝	21	76⁝	22	53⁝	21
March	50⁝	19	50⁝	21	52⁝	22	62⁝	21	69⁝	22	54⁝	21
April	53⁝	18	57⁝	20	55⁝	22	66⁝	21	64⁝	22	67⁝	21
May	65⁚	18	87⁝	20	57⁝	23	71⁝	21	76⁝	22	65⁝	22
June	107⁚	18	91⁝	21	89⁝	23	85⁝	22	77⁝	22	77⁝	22
July	128⁚	19	103⁚	21	128⁝	24	113⁝	23	117⁝	22	101⁝	22
August	92⁝	19	117⁝	21	122⁝	24	118⁚	23	129⁝	22	108⁝	22
September	93⁝	18	89⁚	20	110⁝	24	105⁚	23	134⁝	22	105⁝	22
October	83⁝	19	78⁚	20	84⁝	23	106⁚	22	112⁝	22	91⁝	22
November	79⁝	18	76⁝	20	66⁝	23	92⁚	22	85⁝	22	76⁝	22
December	140⁚	19	111⁚	21	110⁚	22	77⁝	22	76⁝	22	78⁝	21

Table 3.2: Weekly employment: Production worker hours. Hours worked by production workers for the week that includes the 12th of the month. (N = number of EDC Processors with non-zero, non-NA responses).

Month	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
January	1,912.9	19	1,582.6	21	2,415.9	22	2,532.6	21	2,923.9	22	1,768.2	21
February	990.9	19	1,512.0	21	1,968.3	22	2,320.8	21	2,465.7	22	1,471.6	21
March	1,322.4	19	1,337.4	21	1,501.6	22	1,568.4	21	2,136.4	22	1,474.1	21
April	1,479.2	18	1,817.3	20	1,804.5	22	2,040.5	21	1,631.5	22	2,231.4	21
May	2,482.3	18	3,163.9	20	2,312.2	23	2,209.9	21	2,798.2	22	2,560.1	22
June	3,602.6	18	3,100.5	21	3,806.3	23	2,264.2	22	2,543.4	22	2,585.5	22
July	6,385.3	19	4,096.0	21	6,166.8	24	4,664.0	23	4,836.2	22	3,930.4	22
August	3,397.7	19	4,452.5	21	6,623.3	24	4,950.4	23	7,784.3	22	4,857.3	22
September	2,859.1	18	3,119.1	20	5,025.6	24	4,185.1	23	6,274.5	22	4,796.1	22
October	4,155.8	19	2,350.3	20	3,157.7	23	4,404.2	22	4,731.2	22	3,541.1	22
November	2,705.6	18	2,195.7	20	2,171.2	23	3,471.0	22	3,017.8	22	2,139.0	22
December	5,307.2	19	5,688.2	21	4,765.3	22	2,902.0	22	2,213.5	22	2,426.0	21

3.2 Non-production employees

All non-production employees include those involved in supervision above the line-supervisor level, as well as individuals in the company responsible for sales, advertising, credit, collection, installation, the cafeteria, recordkeeping, clerical and routine office functions, guard services, executive management, purchasing, finance, and legal affairs. Companies that do not track hours for salaried employees are asked to assume a forty-hour work week. The EDC form asks for non-production employment figures for the week that includes the 12th of March. Non-production employment is assumed to be relatively stable throughout the year, thus the following tables present an average weekly snapshot of employment that is assumed to be representative for each month throughout the year.

Table 3.3: Weekly employment: Non-production employees. Number of non-production employees and hours worked for the week that includes March 12. (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Hours Worked	633.8	19	810.1	21	446.5	24	349.3	23	453.5	23	362.8	23
Number of employees	10.2	19	12.5	21	8.7	24	8.5	23	8.7	23	8.7	23

3.3 Total number of individuals employed

In 2013, the EDC form was revised to also collect the total number of individuals employed at a facility. This value should represent the number of individuals who worked at any point during the year, rather than the number of positions.

Table 3.4: Total number of individuals employed. (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	—	—	—	—	—	—	—	—	269.4	21	216.4	22
Non-production	—	—	—	—	—	—	—	—	11.5	23	11.3	23

3.4 Compensation

Average hourly compensation for production and non-production workers within each facility is calculated by dividing annual labor expenses (Section 4.2) by an estimate of total annual hours worked. The EDC form requests information on number of employees and total hours worked for the week including the 12th day of the month for production workers and for the week including the 12th day in March for non-production employees. Estimates of total annual hours worked for each company are found by assuming that employment information for the week of the 12th is representative of the entire month and by weighting each month equally using the following formula:

$$\sum_{m=1}^{12} (\frac{Hours_m}{week_m}) * \frac{52}{12}$$

Table 3.5: Hourly compensation. Average hourly compensation. (N = number of EDC Processors with non-zero, non-NA responses).

Employee type	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	$14.14	18	$13.70	20	$13.54	22	$13.88	20	$26.38	22	$15.93	21
Non-production	$31.42	18	$30.71	21	$31.36	24	$37.56	23	$38.12	23	$39.89	23

Compensation per position for each EDC Processor is calculated by dividing annual labor expenses (Section 4.2) by the average number of workers throughout the months of the year. This assumes that the average number of workers is representative of the total number of positions in a given year. For non-production workers, it is assumed that the number of workers in the week containing March 12th is representative of the number of non-production employee positions in all weeks during the year.

Table 3.6: Compensation per position. Average compensation per position. (N = number of EDC Processors with non-zero, non-NA responses).

Employee Type	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	$21,161	18	$20,421	20	$24,136	22	$22,256	20	$55,413	22	$27,979	21
Non-production	$68,481	18	$69,562	21	$62,228	24	$75,622	23	$74,465	23	$78,102	23

4 Costs

This section of the report describes the cost data that are collected on the EDC first receiver and shorebased processor survey form. For the purposes of the EDC Program, costs are divided into two categories: variable costs and fixed costs. Variable costs vary with the level of fish production, and generally include items such as fish inputs, additives, labor, and utilities. Fixed costs do not vary as directly with the level of production, and generally include items such as plant facility costs and processing equipment. The designation of a cost as variable or fixed depends on many factors, including the relevant time horizon and use of the data. While some costs would clearly be considered fixed (e.g., the purchase of processing machinery), others are more difficult to categorize as fixed versus variable. For the purposes of this report, we consider the costs listed in Table 4.1 to be fixed, and the costs listed in Tables 4.2-4.6, and all tables listed under Section 4.3 to be variable. The EDC Program will continue to explore, and possibly improve, the categorization of these costs.

Finally, there are a variety of costs that are associated with running a first receiver or shorebased processing facility that are not requested on the EDC form. This is because it is difficult to determine the share of the costs associated with the facility. These costs include items that can be used for activities other than processing fish, or are too difficult to allocate to a particular facility in a multi-facility company. These expenses include trucks, and professional fees. In general, the EDC form aims to collect costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment beyond the processing facility (with the one exception of off-site product freezing and storage). For these reasons, the aggregated measures of costs presented here (variable costs, fixed costs and total costs) underestimate the true costs of operating a business.

4.1 Fixed Costs

Buildings and processing equipment costs

Table 4.1: Buildings and processing equipment costs. Capitalized expenditures on facilities, capitalized expenditures on machinery and equipment, processing equipment expenses, rental or lease payments on facilities or equipment, and repair and maintenance expenses (thousands of $). (N = number of EDC Processors with non-zero, non-NA responses).

Costs and Expenditures	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Buildings	$474.0	13	$512.5	13	$333.6	10	$184.6	13	$85.4	10	$179.7	13
Machinery and equipment	$1,121.1	19	$1,236.1	18	$564.1	18	$299.3	20	$409.1	18	$538.9	18
Processing equipment	$34.9	14	$34.7	16	$32.8	19	$53.5	14	$61.3	14	$66.6	15
Lease payments	$125.2	19	$125.4	21	$134.0	23	$143.0	23	$193.6	22	$177.6	22
Repair and maintenance	$249.1	19	$250.1	20	$252.5	24	$268.6	23	$316.1	22	$372.6	22

4.2 Variable Costs

Labor expenses

Labor expenses include wages, bonuses, benefits, payroll taxes, and unemployment insurance.

Table 4.2: Employment expenses. Total annual labor expenses for all employees (thousands of $) (includes wages, bonuses, benefits, payroll taxes, and unemployment insurance). (N = number of EDC Processors with non-zero, non-NA responses).

Employee type	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	$1,647	19	$1,402	21	$1,932	24	$2,066	23	$2,478	22	$2,356	22
Non-production	$487	18	$482	21	$503	24	$552	24	$586	23	$697	23

Quota expenses

Many respondents did not provide information on quota expenses either because they did not incur this expense or because that information was not available (Table 4.3).

Table 4.3: Quota expenses. (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Lease of quota pounds		0		0		0	$66,553	3	$223,816	3	$118,603	3
Lease of quota shares		0		0		0		0		0		0
Purchase of quota pounds		0		0	***	***	***	***	***	***	***	***
Purchase of quota shares		0		0	***	***		0		0		0

Utility expenses

Utility expenses include expenses on electricity, natural gas, nitrogen gas, propane gas, water, and sewer, waste, and byproduct disposal (Table 4.4).

Table 4.4: Utility expenses. Utility expenses include electricity, gas, water, and waste disposal (thousands of $) (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Electricity	$187.7	19	$180.6	21	$184.3	24	$225.8	22	$237.1	22	$243.6	22
Natural gas	$85.0	11	$78.8	11	$31.2	11	$33.5	10	$31.9	10	$30.4	10
Nitrogen gas	—	—	—	—	***	***	***	***	$197.5	3	$206.5	3
Propane gas	$28.1	15	$49.8	17	$40.4	20	$33.8	20	$32.9	19	$35.8	17
Water	$76.6	19	$89.3	21	$99.5	24	$113.9	23	$136.7	22	$130.8	22
Sewer, waste, and byproduct disposal	$40.2	18	$41.9	19	$51.2	23	$72.0	19	$85.6	19	$82.5	19

Other expenses

Other expenses include cleaning and production supplies, freight costs, packing materials, etc. Some new categories were added in 2011 reflecting feedback on the baseline 2009-2010 surveys. Therefore, information on these spending categories is only available for 2011 onward (Table 4.5).

Custom processing

Custom processing is when a third party processes fish owned by the respondent, with processing occurring outside the facility responding to the EDC form (Table 4.6).

Table 4.5: Other expenses. Other facility and operational expenses such as supplies, freight costs, insurance, offloading, monitoring, and taxes (thousands of $) (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Cleaning and custodial supplies	—	—	—	—	$19.6	20	$25.4	20	$34.4	18	$34.2	19
Freight costs for supplies	$187.0	9	$172.4	10	$191.5	8	$224.4	10	$348.3	11	$383.0	11
Insurance (property, product, and personal liability)	$153.3	19	$136.4	21	$80.0	24	$76.1	23	$100.9	22	$104.0	22
Licensing fees	—	—	—	—	$13.1	22	$14.4	23	$21.3	21	$16.9	23
Non-fish ingredients (additives)	$71.7	10	$61.5	11	$114.3	13	$185.7	14	$144.8	13	$195.4	13
Off-site product freezing and storage	$195.8	16	$216.4	17	$357.0	17	$488.0	17	$622.1	17	$572.6	17
Offloading	—	—	—	—	$56.0	13	$99.0	15	$164.3	11	$93.7	14
Packing materials	$660.3	19	$526.7	21	$542.0	24	$535.7	24	$605.4	22	$575.7	23
Production supplies	$120.6	18	$122.9	20	$56.6	23	$75.3	22	$100.8	20	$105.7	22
Shoreside monitoring	$15.1	12	$35.1	13	$7.8	15	$8.8	16	$16.9	18	$17.1	18
Taxes (property and excise)	—	—	—	—	$60.8	22	$68.2	22	$88.3	21	$73.9	22
Other	$568.9	7	$759.7	8	$450.5	8	***	***	$855.8	9	$682.5	9

Table 4.6: Custom processing. Cost (thousands of $) and weight (thousands of lbs) of custom processing activities. (N = number of EDC Processors with non-zero, non-NA responses).

Cost and weight of custom processing	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Whiting ($)	284.2 ⁝	3	***	***	***	***	***	***	***	***	***	***
Non-whiting groundfish ($)	432.4 ⁝	3	140.2 ⁝	3	***	***	***	***	***	***	***	***
Other ($)	453.2 ˙	3	326.4 ⁝	4	232.2 ⁝	4	150.7 ⁝	4	261.1 ⁝	3	185.1 ⁝	4
Whiting (lbs)	1,290.3 ⁝	3	***	***	***	***	***	***	***	***	***	***
Non-whiting groundfish (lbs)	1,359.9 ⁝	3	460.7 ⁝	3	***	***	***	***	***	***	***	***
Other (lbs)	2,067.5 ⁝	3	1,401.4 ⁝	4	988.5 ⁝	3	84.5 ˙	3	1,496.1 ⁝	3	***	***

4.3 Fish purchases

Respondents are asked to provide the weight and cost of fish received during the survey year. This includes: 1) the weight of fish paid for; 2) the weight of those not paid for due to size or quality reasons; and 3) the weight of fish not paid for due to intra-company transfers.

The cost of fish from vessel or non-vessel sources includes the value of any taxes paid on behalf of delivering vessels. Purchase weight and cost information is requested by categories for different species types and sources. For catch share species, the fish source categories are: 1) Limited Entry (LE) Trawl; 2) LE Fixed Gear; 3) Other vessels; and 4) Non-vessel sources. For non-catch share species, the fish source categories are: 1) Vessel sources; and 2) Non-vessel sources. LE Trawl represents fish acquired directly from a vessel registered to a LE permit with a trawl endorsement and caught with either trawl or fixed gear. LE Fixed Gear represents fish acquired directly from a vessel with a fixed gear endorsement. This does not include fish caught with fixed gear on a LE permit with a trawl endorsement, i.e., the gear switching provision of the catch share program, which are included under LE trawl. Other vessels are those without either a LE Trawl or LE Fixed Gear endorsement. Non-vessel sources include fish acquired from other entities, including other first receivers, processors, wholesale dealers, brokers, aquaculture producers, and transfers from outside the facility.

Fish that are not paid for are excluded from the tables in this section. This includes fish recorded as having zero value due to size or quality reasons, as well as fish that are received for custom processing. The tables do include post season adjustments and fish purchased that are then custom processed by another processor outside the facility. As stated in the introduction to this report, respondents fill out the EDC form according to their fiscal year, so pounds listed for each species may not have been purchased during the calendar year indicated by the column header, and therefore these values may not align directly to state fish ticket data.

4.4 Total cost and weight of fish purchases by source and species

Table 4.7: Pacific whiting: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	0	0	0	0	—	—	—	—	—	—	—	—
Fixed Gear: Weight	0	0	0	0	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	0	0	0	0	0	0	0	0
LE Fixed Gear: Weight	—	—	—	—	0	0	0	0	0	0	0	0
LE Trawl: Cost	6,926,140	12	8,561,000	12	22,675,265	10	18,893,840	9	27,523,575	10	25,670,006	11
LE Trawl: Weight	88,683,598	12	102,130,197	12	204,027,788	10	133,564,297	9	213,574,273	10	215,911,870	11
Non-vessel: Cost	—	—	—	—	***	***	90,650	3	***	***	***	***
Non-vessel: Weight	—	—	—	—	***	***	545,708	3	***	***	***	***
Other Vessel: Cost	—	—	—	—	***	***	***	***	***	***	***	***
Other Vessel: Weight	—	—	—	—	***	***	***	***	***	***	***	***
Other: Cost	***	***	518,960	5	—	—	—	—	—	—	—	—
Other: Weight	28,945,685	4	6,208,661	4	—	—	—	—	—	—	—	—

Table 4.8: Dover sole: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	6,702	6	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	16,888	6	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	***	***	***	***	1,238	7	712	7
LE Fixed Gear: Weight	—	—	—	—	***	***	***	***	3,260	7	1,499	7
LE Trawl: Cost	8,204,439	14	6,803,447	13	6,571,975	13	6,399,011	13	7,829,181	14	6,302,442	13
LE Trawl: Weight	23,430,276	14	21,160,179	13	15,364,812	13	14,445,000	13	16,978,675	14	13,141,200	13
Non-vessel: Cost	—	—	—	—	147,385	4	587,831	6	842,373	6	461,635	7
Non-vessel: Weight	—	—	—	—	***	***	1,290,828	6	1,510,859	6	835,231	7
Other Vessel: Cost	—	—	—	—	13,077	4	***	***	779	4	245	3
Other Vessel: Weight	—	—	—	—	***	***	***	***	1,299	4	692	3
Other: Cost	***	***	263,045	4	—	—	—	—	—	—	—	—
Other: Weight	***	***	653,061	4	—	—	—	—	—	—	—	—

Table 4.9: Sablefish: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	10,856,992	10	11,694,489	12	—	—	—	—	—	—	—	—
Fixed Gear: Weight	3,576,185	10	3,675,457	12	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	11,481,501	12	7,078,546	11	5,604,184	12	5,663,285	12
LE Fixed Gear: Weight	—	—	—	—	2,959,672	12	2,158,416	11	2,069,305	12	1,712,618	12
LE Trawl: Cost	12,005,913	15	9,710,933	16	8,341,739	15	8,595,596	17	7,013,378	16	7,155,522	16
LE Trawl: Weight	5,748,950	15	4,423,600	16	2,790,486	15	3,609,443	17	3,331,180	16	2,689,528	16
Non-vessel: Cost	—	—	—	—	1,003,407	4	3,123,885	9	2,734,352	6	4,786,260	8
Non-vessel: Weight	—	—	—	—	615,346	4	1,004,220	9	940,730	6	1,251,608	8
Other Vessel: Cost	—	—	—	—	8,584,790	5	4,782,635	9	1,633,797	9	2,449,436	8
Other Vessel: Weight	—	—	—	—	1,617,306	6	1,153,699	9	503,831	9	619,743	8
Other: Cost	2,435,284	4	3,604,747	5	—	—	—	—	—	—	—	—
Other: Weight	1,015,701	4	1,705,355	5	—	—	—	—	—	—	—	—

Table 4.10: Thornyheads: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	5,929	6	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	7,648	6	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	137,113	8	141,697	10	81,872	8	95,183	9
LE Fixed Gear: Weight	—	—	—	—	134,247	8	83,687	10	32,111	8	58,362	9
LE Trawl: Cost	2,458,915	13	2,334,004	13	1,565,347	15	1,771,965	15	2,529,405	17	2,026,254	14
LE Trawl: Weight	4,804,198	13	4,308,159	13	2,637,282	15	2,981,132	15	3,886,886	17	3,037,157	14
Non-vessel: Cost	—	—	—	—	***	***	223,718	3	288,546	4	227,467	5
Non-vessel: Weight	—	—	—	—	***	***	408,505	3	533,753	4	351,550	5
Other Vessel: Cost	—	—	—	—	6,204	4	44,488	7	10,458	5	2,220	5
Other Vessel: Weight	—	—	—	—	7,213	4	56,071	7	3,535	5	1,882	6
Other: Cost	***	***	0	0	—	—	—	—	—	—	—	—
Other: Weight	***	***	***	***	—	—	—	—	—	—	—	—

Table 4.11: English sole: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	***	***	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	0	0	0	0	0	0	0	0
LE Fixed Gear: Weight	—	—	—	—	0	0	0	0	0	0	***	***
LE Trawl: Cost	159,124	11	96,191	11	68,887	9	86,139	13	141,851	13	156,579	13
LE Trawl: Weight	505,429	11	301,365	11	145,008	9	241,375	13	411,668	13	415,787	13
Non-vessel: Cost	—	—	—	—	***	***	13,258	5	132,336	7	70,818	5
Non-vessel: Weight	—	—	—	—	***	***	28,779	6	368,752	7	147,185	5
Other Vessel: Cost	—	—	—	—	***	***	***	***	***	***	0	0
Other Vessel: Weight	—	—	—	—	***	***	***	***	***	***	0	0
Other: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Other: Weight	***	***	***	***	—	—	—	—	—	—	—	—

Table 4.12: Petrale sole: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	***	***	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	***	***	***	***	163	5	204	5
LE Fixed Gear: Weight	—	—	—	—	***	***	***	***	133	5	218	5
LE Trawl: Cost	3,002,794	11	1,659,105	13	1,984,451	11	3,227,354	12	5,185,493	16	5,601,742	13
LE Trawl: Weight	3,779,569	11	1,439,633	13	1,370,472	11	2,113,511	12	3,928,438	16	4,814,551	13
Non-vessel: Cost	—	—	—	—	586,278	5	666,472	5	1,465,069	6	1,351,973	7
Non-vessel: Weight	—	—	—	—	327,299	5	423,031	5	1,065,660	6	1,056,403	7
Other Vessel: Cost	—	—	—	—	228	3	***	***	***	***	149	3
Other Vessel: Weight	—	—	—	—	161	3	***	***	***	***	177	3
Other: Cost	506,952	4	258,526	3	—	—	—	—	—	—	—	—
Other: Weight	398,494	4	148,591	3	—	—	—	—	—	—	—	—

Table 4.13: Rex sole: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	***	***	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	0	0	0	0	***	***	0	0
LE Fixed Gear: Weight	—	—	—	—	0	0	0	0	***	***	0	0
LE Trawl: Cost	367,372	14	306,406	12	271,387	13	391,650	14	361,992	13	308,832	12
LE Trawl: Weight	1,070,683	14	924,944	12	733,693	13	811,759	14	915,245	13	767,431	12
Non-vessel: Cost	—	—	—	—	60,839	4	53,288	4	95,751	7	75,682	5
Non-vessel: Weight	—	—	—	—	34,586	4	122,790	4	219,052	7	180,180	5
Other Vessel: Cost	—	—	—	—	1,849	3	***	***	112	4	0	0
Other Vessel: Weight	—	—	—	—	5,072	3	***	***	238	4	0	0
Other: Cost	63,823	3	67,324	3	—	—	—	—	—	—	—	—
Other: Weight	***	***	70,590	3	—	—	—	—	—	—	—	—

Table 4.14: Arrowtooth flounder: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
LE Fixed Gear: Cost	—	—	—	—	***	***	318	5	557	5	190	5
LE Fixed Gear: Weight	—	—	—	—	***	***	2,274	5	4,053	5	1,329	5
LE Trawl: Cost	—	—	—	—	420,185	11	525,366	13	458,374	11	294,060	11
LE Trawl: Weight	—	—	—	—	4,110,655	11	4,204,353	13	4,211,133	11	2,629,430	11
Non-vessel: Cost	—	—	—	—	***	***	207,925	4	117,675	5	16,752	3
Non-vessel: Weight	—	—	—	—	***	***	***	***	380,115	5	133,232	3
Other Vessel: Cost	—	—	—	—	972	3	***	***	589	5	***	***
Other Vessel: Weight	—	—	—	—	9,504	3	***	***	8,807	6	2,830	3

Table 4.15: Lingcod: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	10,126	7	8,314	6	—	—	—	—	—	—	—	—
Fixed Gear: Weight	12,229	7	10,004	6	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	2,994	6	5,852	6	13,686	10	13,758	8
LE Fixed Gear: Weight	—	—	—	—	3,367	6	7,451	6	8,900	10	7,098	8
LE Trawl: Cost	152,366	15	92,418	14	357,434	17	455,801	17	451,507	17	384,473	17
LE Trawl: Weight	236,097	15	136,144	14	456,578	17	610,599	17	603,246	17	485,613	17
Non-vessel: Cost	—	—	—	—	152,438	7	211,742	6	316,987	7	142,113	7
Non-vessel: Weight	—	—	—	—	153,801	7	229,608	6	321,764	7	90,571	7
Other Vessel: Cost	—	—	—	—	13,436	4	68,055	7	20,133	8	58,743	7
Other Vessel: Weight	—	—	—	—	12,955	4	79,801	7	13,371	8	21,320	7
Other: Cost	105,949	3	98,908	5	—	—	—	—	—	—	—	—
Other: Weight	83,597	3	84,346	5	—	—	—	—	—	—	—	—

Table 4.16: Rockfish: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	69,443	6	176,323	9	—	—	—	—	—	—	—	—
Fixed Gear: Weight	105,590	6	212,133	9	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	67,719	8	113,514	10	85,459	9	84,974	10
LE Fixed Gear: Weight	—	—	—	—	69,143	8	106,275	10	82,349	9	54,974	10
LE Trawl: Cost	1,426,456	18	884,665	15	1,513,158	18	2,020,033	17	2,143,411	19	2,475,408	18
LE Trawl: Weight	2,062,779	18	1,709,814	15	2,814,280	18	3,615,004	17	3,873,246	19	4,639,501	18
Non-vessel: Cost	—	—	—	—	1,637,313	7	1,101,730	6	1,136,743	7	1,032,492	9
Non-vessel: Weight	—	—	—	—	1,812,329	7	952,839	6	1,577,872	7	1,482,434	9
Other Vessel: Cost	—	—	—	—	94,976	5	816,036	8	340,636	7	365,373	8
Other Vessel: Weight	—	—	—	—	89,382	5	***	***	161,352	7	103,485	8
Other: Cost	1,283,434	5	1,329,621	5	—	—	—	—	—	—	—	—
Other: Weight	***	***	1,837,104	5	—	—	—	—	—	—	—	—

Table 4.17: Sanddab: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
LE Fixed Gear: Cost	—	—	—	—	0	0	0	0	0	0	0	0
LE Fixed Gear: Weight	—	—	—	—	0	0	0	0	0	0	0	0
LE Trawl: Cost	—	—	—	—	164,846	7	135,642	8	176,763	9	230,357	10
LE Trawl: Weight	—	—	—	—	284,091	7	229,860	8	305,241	9	404,388	10
Non-vessel: Cost	—	—	—	—	7,454	4	5,795	5	22,527	7	33,227	5
Non-vessel: Weight	—	—	—	—	2,984	4	7,325	5	20,877	7	33,660	5
Other Vessel: Cost	—	—	—	—	***	***	***	***	0	0	***	***
Other Vessel: Weight	—	—	—	—	***	***	***	***	0	0	***	***

Table 4.18: Sharks, skates and rays: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fixed Gear: Cost	8,997	6	15,544	3	—	—	—	—	—	—	—	—
Fixed Gear: Weight	41,193	6	57,110	3	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	31,873	4	20,697	7	20,731	8	10,410	6
LE Fixed Gear: Weight	—	—	—	—	21,080	4	52,778	7	50,967	8	31,820	6
LE Trawl: Cost	495,037	12	732,121	11	802,464	12	944,040	13	836,114	13	1,004,218	12
LE Trawl: Weight	2,527,477	12	2,833,075	11	2,588,190	12	2,285,300	13	2,085,704	13	2,389,120	12
Non-vessel: Cost	—	—	—	—	24,778	4	93,738	6	165,407	6	352,679	8
Non-vessel: Weight	—	—	—	—	18,640	4	204,485	6	289,541	6	494,717	8
Other Vessel: Cost	—	—	—	—	54,303	6	60,856	6	15,221	6	23,339	6
Other Vessel: Weight	—	—	—	—	87,463	6	184,007	6	69,903	6	52,116	6
Other: Cost	143,336	3	80,424	3	—	—	—	—	—	—	—	—
Other: Weight	***	***	94,492	3	—	—	—	—	—	—	—	—

Table 4.19: Crab: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	28,779,371	15	57,848,849	18	—	—	—	—	—	—	—	—
All: Weight	15,738,798	15	31,145,121	18	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	7,358,774	8	20,553,525	11	15,935,635	9	11,916,898	9
Non-vessel: Weight	—	—	—	—	2,897,374	8	7,042,142	11	5,218,488	9	3,166,424	9
Vessel: Cost	—	—	—	—	62,901,738	19	61,336,333	18	75,728,578	19	69,592,656	20
Vessel: Weight	—	—	—	—	26,082,693	19	20,670,834	18	29,097,440	19	20,989,120	20

Table 4.20: Shrimp: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	10,216,901	9	13,493,031	11	—	—	—	—	—	—	—	—
All: Weight	26,186,885	9	35,471,954	11	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	3,900,241	7	3,297,070	7	3,671,412	8	12,267,391	8
Non-vessel: Weight	—	—	—	—	3,625,823	7	4,190,997	7	4,062,671	7	18,121,603	8
Vessel: Cost	—	—	—	—	25,721,379	9	26,660,957	11	28,055,872	11	34,216,842	11
Vessel: Weight	—	—	—	—	52,814,404	9	51,935,521	11	53,875,070	11	59,307,277	11

Table 4.21: Coastal pelagics: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	5,376,267	9	5,279,066	8	—	—	—	—	—	—	—	—
All: Weight	47,657,255	9	46,131,619	8	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	458,618	7	346,942	5	883,002	5	***	***
Non-vessel: Weight	—	—	—	—	312,188	7	2,235,825	5	2,836,015	6	110,315	5
Vessel: Cost	—	—	—	—	4,605,641	11	14,993,108	9	7,963,978	8	4,986,492	7
Vessel: Weight	—	—	—	—	39,367,619	11	143,899,168	9	72,405,516	8	28,451,790	7

Table 4.22: Salmon: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	5,845,334	10	14,860,160	13	—	—	—	—	—	—	—	—
All: Weight	4,741,496	9	6,305,742	13	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	7,887,329	9	4,217,960	9	9,473,535	8	9,397,585	8
Non-vessel: Weight	—	—	—	—	2,313,335	9	1,718,459	9	3,988,760	8	3,475,353	8
Vessel: Cost	—	—	—	—	12,319,846	18	9,869,476	15	21,501,380	17	24,261,718	18
Vessel: Weight	—	—	—	—	8,411,715	18	3,366,050	15	10,826,249	17	7,891,677	18

Table 4.23: Tuna: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	6,801,017	10	11,107,530	14	—	—	—	—	—	—	—	—
All: Weight	6,464,560	10	8,961,384	14	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	1,535,163	5	***	***	743,575	5	1,817,616	6
Non-vessel: Weight	—	—	—	—	635,544	5	***	***	260,930	6	919,081	6
Vessel: Cost	—	—	—	—	12,113,702	17	17,449,805	16	14,025,370	16	10,266,784	13
Vessel: Weight	—	—	—	—	6,104,358	17	11,321,603	16	8,714,746	16	8,254,817	13

Table 4.24: California halibut: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	568,491	5	682,046	8	—	—	—	—	—	—	—	—
All: Weight	117,882	5	146,430	8	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	547,168	5	64,951	3	***	***	124,620	3
Non-vessel: Weight	—	—	—	—	98,309	5	14,410	3	***	***	23,814	3
Vessel: Cost	—	—	—	—	571,946	7	326,205	6	531,351	8	541,071	8
Vessel: Weight	—	—	—	—	124,859	7	67,306	6	109,246	8	103,924	8

Table 4.25: Pacific halibut: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	2,413,702	6	1,893,539	8	—	—	—	—	—	—	—	—
All: Weight	516,258	6	272,064	8	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	1,111,819	5	734,635	5	933,463	4	645,749	5
Non-vessel: Weight	—	—	—	—	118,382	5	119,828	5	140,883	4	136,050	5
Vessel: Cost	—	—	—	—	1,211,238	8	3,403,803	8	2,682,412	8	3,606,448	7
Vessel: Weight	—	—	—	—	193,757	8	544,689	8	448,648	8	497,746	7

Table 4.26: Other: Total purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
All: Cost	8,553,181	16	10,174,623	18	—	—	—	—	—	—	—	—
All: Weight	11,969,424	16	18,419,028	18	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	9,072,425	10	8,937,884	15	8,718,050	9	11,117,060	13
Non-vessel: Weight	—	—	—	—	4,915,805	10	6,985,464	15	3,927,726	9	7,045,068	13
Vessel: Cost	—	—	—	—	3,031,990	17	5,821,116	10	11,009,400	14	2,775,075	12
Vessel: Weight	—	—	—	—	4,678,663	17	15,461,876	10	27,213,366	14	4,417,523	12

4.5 Mean cost and weight of fish purchases by source and species

Table 4.27: Pacific whiting: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost		0		0	—	—	—	—	—	—	—	—
Fixed Gear: Weight		0		0	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—		0		0		0		0
LE Fixed Gear: Weight	—	—	—	—		0		0		0		0
LE Trawl: Cost	577,178 ⁝	12	713,417 ⁝	12	2,267,527 ⁝	10	2,099,316 ⁝	9	2,752,357 ⁝	10	2,333,637 ⁝	11
LE Trawl: Weight	7,390,300 ⁝	12	8,510,850 ⁝	12	20,402,779 ⁝	10	14,840,477 ⁝	9	21,357,427 ⁝	10	19,628,352 ⁝	11
Non-vessel: Cost	—	—	—	—	***	***	30,217 ⁝	3	***	***	***	***
Non-vessel: Weight	—	—	—	—	***	***	181,903 ⁝	3	***	***	***	***
Other Vessel: Cost	—	—	—	—	***	***	***	***	***	***	***	***
Other Vessel: Weight	—	—	—	—	***	***	***	***	***	***	***	***
Other: Cost	***	***	103,792 ⁝	5	—	—	—	—	—	—	—	—
Other: Weight	7,236,421 ⁝	4	1,552,165 ⁝	4	—	—	—	—	—	—	—	—

Table 4.28: Dover sole: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	1,117 ⁝	6	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	2,815 ⁝	6	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	***	***	***	***	177 ⁝	7	102 ⁝	7
LE Fixed Gear: Weight	—	—	—	—	***	***	***	***	466 ⁝	7	214 ⁝	7
LE Trawl: Cost	586,031 ⁝	14	523,342 ⁝	13	505,537 ⁝	13	492,232 ⁝	13	559,227 ⁝	14	484,803 ⁝	13
LE Trawl: Weight	1,673,591 ⁝	14	1,627,706 ⁝	13	1,181,909 ⁝	13	1,111,154 ⁝	13	1,212,763 ⁝	14	1,010,862 ⁝	13
Non-vessel: Cost	—	—	—	—	36,846 ⁝	4	97,972 ⁝	6	140,396 ⁝	6	65,948 ⁝	7
Non-vessel: Weight	—	—	—	—	***	***	215,138 ⁝	6	251,810 ⁝	6	119,319 ⁝	7
Other Vessel: Cost	—	—	—	—	3,269 ⁝	4	***	***	195 ·	4	82 ⁝	3
Other Vessel: Weight	—	—	—	—	***	***	***	***	325 ⁝	4	231 ⁝	3
Other: Cost	***	***	65,761 ⁝	4	—	—	—	—	—	—	—	—
Other: Weight	***	***	163,265 ⁝	4	—	—	—	—	—	—	—	—

Table 4.29: Sablefish: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	1,085,699 :	10	974,541 :	12	—	—	—	—	—	—	—	—
Fixed Gear: Weight	357,619 :	10	306,288 :	12	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	956,792 :	12	643,504 :	11	467,015 :	12	471,940 :	12
LE Fixed Gear: Weight	—	—	—	—	246,639 :	12	196,220 :	11	172,442 :	12	142,718 :	12
LE Trawl: Cost	800,394 :	15	606,933 :	16	556,116 :	15	505,623 :	17	438,336 :	16	447,220 :	16
LE Trawl: Weight	383,263 :	15	276,475 :	16	186,032 :	15	212,320 :	17	208,199 :	16	168,096 :	16
Non-vessel: Cost	—	—	—	—	250,852 :	4	347,098 :	9	455,725 :	6	598,282 :	8
Non-vessel: Weight	—	—	—	—	153,837 :	4	111,580 :	9	156,788 :	6	156,451 :	8
Other Vessel: Cost	—	—	—	—	1,716,958 :	5	531,404 :	9	181,533 :	9	306,180 :	8
Other Vessel: Weight	—	—	—	—	269,551 :	6	128,189 :	9	55,981 :	9	77,468 :	8
Other: Cost	608,821 :	4	720,949 :	5	—	—	—	—	—	—	—	—
Other: Weight	253,925 :	4	341,071 :	5	—	—	—	—	—	—	—	—

Table 4.30: Thornyheads: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	988 :	6	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	1,275 :	6	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	17,139 ⁝	8	14,170 ⁝	10	10,234 ⁝	8	10,576 ⁝	9
LE Fixed Gear: Weight	—	—	—	—	16,781 ⁝	8	8,369 ⁝	10	4,014 ⁝	8	6,485 ⁝	9
LE Trawl: Cost	189,147 ⁝	13	179,539 ⁝	13	104,356 ⁝	15	118,131 ⁝	15	148,789 ⁝	17	144,732 ⁝	14
LE Trawl: Weight	369,554 ⁝	13	331,397 ⁝	13	175,819 ⁝	15	198,742 ⁝	15	228,640 ⁝	17	216,940 ⁝	14
Non-vessel: Cost	—	—	—	—	***	***	74,573 :	3	72,136 ⁝	4	45,493 ⁝	5
Non-vessel: Weight	—	—	—	—	***	***	136,168 :	3	133,438 :	4	70,310 ⁝	5
Other Vessel: Cost	—	—	—	—	1,551 :	4	6,355 ⁝	7	2,092 ⁝	5	444 :	5
Other Vessel: Weight	—	—	—	—	1,803 :	4	8,010 ⁝	7	707 :	5	314 ⁝	6
Other: Cost	***	***		0	—	—	—	—	—	—	—	—
Other: Weight	***	***	***	***	—	—	—	—	—	—	—	—

Table 4.31: English sole: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	***	***	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—		0		0		0		0
LE Fixed Gear: Weight	—	—	—	—		0		0		0	***	***
LE Trawl: Cost	14,466	11	8,745	11	7,654	9	6,626	13	10,912	13	12,045	13
LE Trawl: Weight	45,948	11	27,397	11	16,112	9	18,567	13	31,667	13	31,984	13
Non-vessel: Cost	—	—	—	—	***	***	2,652	5	18,905	7	14,164	5
Non-vessel: Weight	—	—	—	—	***	***	4,796	6	52,679	7	29,437	5
Other Vessel: Cost	—	—	—	—	***	***	***	***	***	***		0
Other Vessel: Weight	—	—	—	—	***	***	***	***	***	***		0
Other: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Other: Weight	***	***	***	***	—	—	—	—	—	—	—	—

Table 4.32: Petrale sole: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	***	***	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	***	***	***	***	33 :	5	41 :	5
LE Fixed Gear: Weight	—	—	—	—	***	***	***	***	27 :	5	44 :	5
LE Trawl: Cost	272,981 :	11	127,623 :	13	180,405 :	11	268,946 :	12	324,093 :	16	430,903 :	13
LE Trawl: Weight	343,597 :	11	110,741 :	13	124,588 :	11	176,126 :	12	245,527 :	16	370,350 :	13
Non-vessel: Cost	—	—	—	—	117,256 :	5	133,294 :	5	244,178 :	6	193,139 :	7
Non-vessel: Weight	—	—	—	—	65,460 :	5	84,606 :	5	177,610 :	6	150,915 :	7
Other Vessel: Cost	—	—	—	—	76 :	3	***	***	***	***	50 :	3
Other Vessel: Weight	—	—	—	—	54 :	3	***	***	***	***	59 :	3
Other: Cost	126,738 :	4	86,175 ·	3	—	—	—	—	—	—	—	—
Other: Weight	99,624 :	4	49,530 :	3	—	—	—	—	—	—	—	—

Table 4.33: Rex sole: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	***	***	***	***	—	—	—	—	—	—	—	—
Fixed Gear: Weight	***	***	***	***	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—		0		0	***	***		0
LE Fixed Gear: Weight	—	—	—	—		0		0	***	***		0
LE Trawl: Cost	26,241 ⁝	14	25,534 ⁝	12	20,876 ⁝	13	27,975 ⁝	14	27,846 ⁝	13	25,736 ⁝	12
LE Trawl: Weight	76,477 ⁝	14	77,079 ⁝	12	56,438 ⁝	13	57,983 ⁝	14	70,403 ⁝	13	63,953 ⁝	12
Non-vessel: Cost	—	—	—	—	15,210 ⁝	4	13,322 ⁝	4	13,679 ⁝	7	15,136 ⁝	5
Non-vessel: Weight	—	—	—	—	8,646 ⁝	4	30,698 ⁝	4	31,293 ⁝	7	36,036 ⁝	5
Other Vessel: Cost	—	—	—	—	616 ⁝	3	***	***	28 ⁝	4		0
Other Vessel: Weight	—	—	—	—	1,691 ⁝	3	***	***	60 ⁝	4		0
Other: Cost	21,274 ⁝	3	22,441 ⁝	3	—	—	—	—	—	—	—	—
Other: Weight	***	***	23,530 ⁝	3	—	—	—	—	—	—	—	—

Table 4.34: Arrowtooth flounder: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
LE Fixed Gear: Cost	—	—	—	—	***	***	64 ⁝	5	111 ⁝	5	38 ⁝	5
LE Fixed Gear: Weight	—	—	—	—	***	***	455 ⁝	5	811 ⁝	5	266 ⁝	5
LE Trawl: Cost	—	—	—	—	38,199 ⁝	11	40,413 ⁝	13	41,670 ⁝	11	26,733 ⁝	11
LE Trawl: Weight	—	—	—	—	373,696 ⁝	11	323,412 ⁝	13	382,830 ⁝	11	239,039 ⁝	11
Non-vessel: Cost	—	—	—	—	***	***	51,981 ⁝	4	23,535 ⁝	5	5,584 ⁝	3
Non-vessel: Weight	—	—	—	—	***	***	***	***	76,023 ⁝	5	44,411 ⁝	3
Other Vessel: Cost	—	—	—	—	324 ⁝	3	***	***	118 ⁝	5	***	***
Other Vessel: Weight	—	—	—	—	3,168 ⁝	3	***	***	1,468 ⁝	6	943 ⁝	3

Table 4.35: Lingcod: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	1,447 ⁝	7	1,386 ⁝	6	—	—	—	—	—	—	—	—
Fixed Gear: Weight	1,747 ⁝	7	1,667 ⁚	6	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	499 ⁚	6	975 ⁚	6	1,369 ⁝	10	1,720 ⁝	8
LE Fixed Gear: Weight	—	—	—	—	561 ⁚	6	1,242 ⁚	6	890 ⁚	10	887 ⁚	8
LE Trawl: Cost	10,158 ⁝	15	6,601 ⁝	14	21,026 ⁝	17	26,812 ⁝	17	26,559 ⁝	17	22,616 ⁝	17
LE Trawl: Weight	15,740 ⁝	15	9,725 ⁝	14	26,858 ⁝	17	35,918 ⁝	17	35,485 ⁝	17	28,565 ⁝	17
Non-vessel: Cost	—	—	—	—	21,777 ⁝	7	35,290 ⁝	6	45,284 ⁚	7	20,302 ⁝	7
Non-vessel: Weight	—	—	—	—	21,972 ⁝	7	38,268 ⁝	6	45,966 ⁚	7	12,939 ⁝	7
Other Vessel: Cost	—	—	—	—	3,359 ⁚	4	9,722 ⁝	7	2,517 ⁝	8	8,392 ⁝	7
Other Vessel: Weight	—	—	—	—	3,239 ⁚	4	11,400 ⁝	7	1,671 ⁝	8	3,046 ⁝	7
Other: Cost	35,316 ⁚	3	19,782 ⁚	5	—	—	—	—	—	—	—	—
Other: Weight	27,866 ⁝	3	16,869 ⁝	5	—	—	—	—	—	—	—	—

Table 4.36: Rockfish: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	11,574	6	19,591	9	—	—	—	—	—	—	—	—
Fixed Gear: Weight	17,598	6	23,570	9	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	8,465	8	11,351	10	9,495	9	8,497	10
LE Fixed Gear: Weight	—	—	—	—	8,643	8	10,628	10	9,150	9	5,497	10
LE Trawl: Cost	79,248	18	58,978	15	84,064	18	118,825	17	112,811	19	137,523	18
LE Trawl: Weight	114,599	18	113,988	15	156,349	18	212,647	17	203,855	19	257,750	18
Non-vessel: Cost	—	—	—	—	233,902	7	183,622	6	162,392	7	114,721	9
Non-vessel: Weight	—	—	—	—	258,904	7	158,807	6	225,410	7	164,715	9
Other Vessel: Cost	—	—	—	—	18,995	5	102,005	8	48,662	7	45,672	8
Other Vessel: Weight	—	—	—	—	17,876	5	***	***	23,050	7	12,936	8
Other: Cost	256,687	5	265,924	5	—	—	—	—	—	—	—	—
Other: Weight	***	***	367,421	5	—	—	—	—	—	—	—	—

Table 4.37: Sanddab: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
LE Fixed Gear: Cost	—	—	—	—		0		0		0		0
LE Fixed Gear: Weight	—	—	—	—		0		0		0		0
LE Trawl: Cost	—	—	—	—	23,549 ⁝	7	16,955 ⁝	8	19,640 ⁝	9	23,036 ⁝	10
LE Trawl: Weight	—	—	—	—	40,584 ⁝	7	28,733 ⁝	8	33,916 ⁝	9	40,439 ⁝	10
Non-vessel: Cost	—	—	—	—	1,864 ⁝	4	1,159 ⁝	5	3,218 ⁝	7	6,645 ⁝	5
Non-vessel: Weight	—	—	—	—	746 ˙	4	1,465 ⁝	5	2,982 ⁝	7	6,732 ⁝	5
Other Vessel: Cost	—	—	—	—	***	***	***	***		0	***	***
Other Vessel: Weight	—	—	—	—	***	***	***	***		0	***	***

Table 4.38: Sharks, skates and rays: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fixed Gear: Cost	1,500 ⁝	6	5,181 ⁝	3	—	—	—	—	—	—	—	—
Fixed Gear: Weight	6,866 ⁝	6	19,037 ⁝	3	—	—	—	—	—	—	—	—
LE Fixed Gear: Cost	—	—	—	—	7,968 ⁝	4	2,957 ⁝	7	2,591 ⁝	8	1,735 ⁝	6
LE Fixed Gear: Weight	—	—	—	—	5,270 ⁝	4	7,540 ⁝	7	6,371 ⁝	8	5,303 ⁝	6
LE Trawl: Cost	41,253 ⁝	12	66,556 ⁝	11	66,872 ⁝	12	72,618 ⁝	13	64,316 ⁝	13	83,685 ⁝	12
LE Trawl: Weight	210,623 ⁝	12	257,552 ⁝	11	215,683 ⁝	12	175,792 ⁝	13	160,439 ⁝	13	199,093 ⁝	12
Non-vessel: Cost	—	—	—	—	6,195 ⁝	4	15,623 ⁝	6	27,568 ⁝	6	44,085 ⁝	8
Non-vessel: Weight	—	—	—	—	4,660 ⁝	4	34,081 ⁝	6	48,257 ⁝	6	61,840 ⁝	8
Other Vessel: Cost	—	—	—	—	9,050 ⁝	6	10,143 ⁝	6	2,537 ⁝	6	3,890 ⁝	6
Other Vessel: Weight	—	—	—	—	14,577 ⁝	6	30,668 ⁝	6	11,650 ⁝	6	8,686 ⁝	6
Other: Cost	47,779 ˙	3	26,808 ⁝	3	—	—	—	—	—	—	—	—
Other: Weight	***	***	31,497 ⁝	3	—	—	—	—	—	—	—	—

Table 4.39: Crab: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	1,918,625 :	15	3,213,825 :	18	—	—	—	—	—	—	—	—
All: Weight	1,049,253 :	15	1,730,285 :	18	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	919,847 :	8	1,868,502 :	11	1,770,626 :	9	1,324,100 :	9
Non-vessel: Weight	—	—	—	—	362,172 :	8	640,195 :	11	579,832 :	9	351,825 :	9
Vessel: Cost	—	—	—	—	3,310,618 :	19	3,407,574 :	18	3,985,715 :	19	3,479,633 :	20
Vessel: Weight	—	—	—	—	1,372,773 :	19	1,148,380 :	18	1,531,444 :	19	1,049,456 :	20

Table 4.40: Shrimp: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	1,135,211 :	9	1,226,639 :	11	—	—	—	—	—	—	—	—
All: Weight	2,909,654 :	9	3,224,723 :	11	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	557,177 :	7	471,010 :	7	458,927 :	8	1,533,424 :	8
Non-vessel: Weight	—	—	—	—	517,975 :	7	598,714 :	7	580,382 :	7	2,265,200 :	8
Vessel: Cost	—	—	—	—	2,857,931 :	9	2,423,723 :	11	2,550,534 :	11	3,110,622 :	11
Vessel: Weight	—	—	—	—	5,868,267 :	9	4,721,411 :	11	4,897,734 :	11	5,391,571 :	11

Table 4.41: Coastal pelagics: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	597,363 ⁝	9	659,883 ⁝	8	—	—	—	—	—	—	—	—
All: Weight	5,295,251 ⁝	9	5,766,452 ⁝	8	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	65,517 ⁝	7	69,388 ⁝	5	176,600 ⁝	5	***	***
Non-vessel: Weight	—	—	—	—	44,598 ⁝	7	447,165 ⁝	5	472,669 ⁝	6	22,063 ⁝	5
Vessel: Cost	—	—	—	—	418,695 ⁝	11	1,665,901 ⁝	9	995,497 ⁝	8	712,356 ⁝	7
Vessel: Weight	—	—	—	—	3,578,874 ⁝	11	15,988,796 ⁝	9	9,050,689 ⁝	8	4,064,541 ⁝	7

Table 4.42: Salmon: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	584,533 ⁝	10	1,143,089 ⁝	13	—	—	—	—	—	—	—	—
All: Weight	526,833 ⁝	9	485,057 ⁝	13	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	876,370 ⁝	9	468,662 ⁝	9	1,184,192 ⁝	8	1,174,698 ⁝	8
Non-vessel: Weight	—	—	—	—	257,037 ⁝	9	190,940 ⁝	9	498,595 ⁝	8	434,419 ⁝	8
Vessel: Cost	—	—	—	—	684,436 ⁝	18	657,965 ⁝	15	1,264,787 ⁝	17	1,347,873 ⁝	18
Vessel: Weight	—	—	—	—	467,317 ⁝	18	224,403 ⁝	15	636,838 ⁝	17	438,427 ⁝	18

Table 4.43: Tuna: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	680,102 ⁝	10	793,395 ⁝	14	—	—	—	—	—	—	—	—
All: Weight	646,456 ⁝	10	640,099 ⁝	14	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	307,033 ⁝	5	***	***	148,715 ⁝	5	302,936 ⁝	6
Non-vessel: Weight	—	—	—	—	127,109 ⁝	5	***	***	43,488 ⁝	6	153,180 ⁝	6
Vessel: Cost	—	—	—	—	712,571 ⁝	17	1,090,613 ⁝	16	876,586 ⁝	16	789,753 ⁝	13
Vessel: Weight	—	—	—	—	359,080 ⁝	17	707,600 ⁝	16	544,672 ⁝	16	634,986 ⁝	13

Table 4.44: California halibut: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	113,698 :	5	85,256 :	8	—	—	—	—	—	—	—	—
All: Weight	23,576 :	5	18,304 :	8	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	109,434 :	5	21,650 :	3	***	***	41,540 :	3
Non-vessel: Weight	—	—	—	—	19,662 :	5	4,803 :	3	***	***	7,938 :	3
Vessel: Cost	—	—	—	—	81,707 :	7	54,368 :	6	66,419 :	8	67,634 :	8
Vessel: Weight	—	—	—	—	17,837 :	7	11,218 :	6	13,656 :	8	12,991 :	8

Table 4.45: Pacific halibut: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	402,284 ⁝	6	236,692 ⁝	8	—	—	—	—	—	—	—	—
All: Weight	86,043 ⁝	6	34,008 ⁝	8	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	222,364 ⁝	5	146,927 ⁝	5	233,366 ⁝	4	129,150 ⁝	5
Non-vessel: Weight	—	—	—	—	23,676 ⁝	5	23,966 ⁝	5	35,221 ⁝	4	27,210 ⁝	5
Vessel: Cost	—	—	—	—	151,405 ⁝	8	425,475 ⁝	8	335,301 ⁝	8	515,207 ⁝	7
Vessel: Weight	—	—	—	—	24,220 ⁝	8	68,086 ⁝	8	56,081 ⁝	8	71,107 ⁝	7

Table 4.46: Other: Average purchase weight (lbs.) and cost ($) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
All: Cost	534,574	16	565,257	18	—	—	—	—	—	—	—	—
All: Weight	748,089	16	1,023,279	18	—	—	—	—	—	—	—	—
Non-vessel: Cost	—	—	—	—	907,243	10	595,859	15	968,672	9	855,158	13
Non-vessel: Weight	—	—	—	—	491,581	10	465,698	15	436,414	9	541,928	13
Vessel: Cost	—	—	—	—	178,352	17	582,112	10	786,386	14	231,256	12
Vessel: Weight	—	—	—	—	275,215	17	1,546,188	10	1,943,812	14	368,127	12

5 Depreciation

Depreciation in the following table includes depreciation for all capital investments on buildings and new and used machinery and equipment taken during the survey year. Depreciation is excluded from the calculations of both fixed and variable costs (Section 4) and net revenue (Section 12). It is collected for use in the IO-PAC model.

Table 5.1: Depreciation. Average facility depreciation taken during the survey year (thousands of $) (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Depreciation	$387.0	17	$306.5	19	$242.5	22	$365.9	21	$529.2	19	$493.3	21

6 Revenue

Participants are asked to provide revenue from production of purchased fish as well as from custom processing, and the sale or lease of quota. Beginning with the 2011 form, revenue from offloading fees is also collected, and beginning in 2013, revenue from insurance settlements is also collected.

6.1 Revenue from custom processing, offloading, insurance settlements, and sale or lease of quota

Participants are asked to provide revenue from a variety of other activities, including revenue from custom processing, sale and lease of quota shares and pounds, offloading, and insurance settlements. Not enough processors reported quota revenue to be able to display this information.

Table 6.1: Other revenue. Other sources of revenue, including custom processing and offloading (thousands of $) (N = number of EDC Processors with non-zero, non-NA responses).

Revenue Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Custom processing of whiting	***	***	***	***	***	***	$118.7 :	4	$124.2 :	4	***	***
Custom processing of non-whiting groundfish	***	***	***	***	$166.0 :	4	$212.9 :	5	$273.8 :	5	***	***
Custom processing of other species	$63.2 :	6	$76.2 :	6	$121.1 :	4	$250.2 :	5	—	—	—	—
Offloading	—	—	—	—	$128.4 :	9	$69.0 :	12	$84.4 :	13	$92.5 :	12
Insurance settlements	—	—	—	—	—	—	—	—	***	***	***	***
Other	—	—	—	—	—	—	—	—	—	—	***	***

6.2 Production activities

The product weight and value from production activities free-on-board (FOB) plant are requested for each survey year. Free-on-board plant indicates that the buyer both takes responsibility and liability for the product and pays shipping costs. These production values exclude freight charges, revenue from products made in previous years, products made from custom processing performed for another company, and any additional payments received that covered shipping, handling, or storage costs associated with sale beyond the plant. The total value of fish production does include products made in that survey year and held in inventory at the end of the year, products shipped to other facilities in the same company, products made from custom processing performed by another facility, and any post-season adjustments.

The same species categories are provided as in the fish purchase section but are instead divided into product categories that include processed fresh, frozen, unprocessed, and other, as well as additional categories for whiting. There is also a category for non-species specific products such as fishmeal, fish oil, and bait.

6.3 Total value and weight of fish production by product type and species

Table 6.2: Pacific whiting: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fillet: Value	5,913,750.2	3	9,633,725.9	4	12,203,026.8	3	6,866,244.3	3	***	***	***	***
Fillet: Weight	5,401,941.0	3	8,203,630.0	4	18,735,603.0	3	6,874,468.4	3	***	***	16,164,289.0	3
Frozen: Value	***	***	1,252,309.0	4	9,063,573.1	6	4,123,519.4	6	6,498,163.3	9	2,555,823.0	6
Frozen: Weight	***	***	3,753,097.0	4	31,185,385.7	6	7,823,690.9	6	25,817,013.2	9	8,551,865.0	6
Headed-and-gutted: Value	35,988,433.0	10	19,261,760.8	10	41,419,469.8	9	26,484,413.6	7	41,107,360.3	8	34,923,358.5	8
Headed-and-gutted: Weight	64,395,842.0	10	34,243,619.4	10	73,910,169.0	9	40,216,543.0	7	82,575,578.0	8	68,747,312.0	8
Roe: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Roe: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Surimi: Value	***	***	***	***	***	***	***	***	***	***	***	***
Surimi: Weight	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed: Value	***	***	34,907.8	3	***	***	***	***	***	***	***	***
Unprocessed: Weight	***	***	331,972.0	3	***	***	4,786,890.0	3	***	***	***	***
Other: Value	***	***	***	***	***	***	3,217,165.9	4	***	***	***	***
Other: Weight	***	***	***	***	***	***	6,070,288.0	4	***	***	***	***

Table 6.3: Dover sole: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	14,309,647.0	12	13,812,197.8	12	12,014,555.2	10	12,687,514.1	12	13,014,825.2	10	11,216,013.7	11
Fresh: Weight	6,385,054.5	12	5,553,627.2	12	3,606,954.0	10	3,631,118.5	12	3,678,248.3	10	3,107,842.6	11
Frozen: Value	2,724,165.2	10	1,990,080.5	11	1,611,904.1	11	2,499,409.6	10	2,595,302.4	10	1,754,751.3	9
Frozen: Weight	1,269,880.9	10	1,266,719.6	11	605,882.0	11	996,583.3	10	1,291,099.9	10	497,953.5	9
Unprocessed: Value	27,237.0	5	78,204.0	6	67,575.8	8	132,382.2	8	492,211.2	6	322,436.0	6
Unprocessed: Weight	52,036.5	5	74,724.5	6	91,654.4	8	775,445.6	10	1,027,901.1	6	565,720.4	6
Other: Value	***	***	***	***	0.0	0	***	***	***	***	0.0	0
Other: Weight	***	***	***	***	0.0	0	***	***	***	***	0.0	0

Table 6.4: Sablefish: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	5,017,556.2	11	6,583,020.0	14	6,107,264.8	12	3,425,512.0	13	3,287,743.4	14	4,032,888.1	13
Fresh: Weight	1,233,221.3	11	1,269,233.4	14	1,835,186.4	12	672,158.2	13	864,061.9	14	633,153.5	13
Frozen: Value	27,114,518.0	11	30,130,688.4	13	30,305,667.0	12	26,192,432.9	13	17,980,692.7	14	18,464,324.0	12
Frozen: Weight	5,527,723.3	11	5,599,424.1	13	4,230,990.6	12	4,713,836.8	13	3,721,022.4	14	3,324,594.7	12
Unprocessed: Value	1,573,561.7	3	1,965,294.5	4	1,526,964.2	9	1,407,977.3	7	1,855,659.3	10	2,931,665.8	11
Unprocessed: Weight	560,511.1	3	673,207.7	4	378,355.4	9	533,624.8	8	776,206.3	11	1,030,868.0	11
Other: Value	***	***	***	***	0.0	0	364,440.8	4	***	***	***	***
Other: Weight	***	***	***	***	0.0	0	67,529.0	4	***	***	***	***

Table 6.5: Thornyheads: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	232,621.0	5	366,276.0	7	10,141.6	3	***	***	24,405.5	5	620,273.2	6
Fresh: Weight	193,671.9	5	316,183.5	7	5,400.7	3	***	***	11,676.0	5	209,733.8	7
Frozen: Value	4,215,773.4	7	4,506,427.2	7	3,862,581.0	8	5,055,251.3	9	5,017,775.3	10	3,031,296.8	9
Frozen: Weight	1,797,303.2	7	2,034,274.7	7	1,131,368.0	8	1,387,593.1	9	1,658,593.0	10	965,745.0	9
Unprocessed: Value	104,388.0	3	158,763.4	4	468,720.6	10	596,819.7	9	1,009,844.4	8	1,334,604.3	7
Unprocessed: Weight	84,872.5	3	162,098.0	4	313,241.5	10	377,248.6	10	741,946.7	9	807,545.0	7
Other: Value	0.0	0	***	***	***	***	***	***	0.0	0	0.0	0
Other: Weight	0.0	0	***	***	***	***	***	***	0.0	0	0.0	0

Table 6.6: English sole: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	448,652.4	11	232,878.0	11	221,963.6	8	308,446.5	9	286,562.2	9	285,313.3	8
Fresh: Weight	210,604.5	11	104,091.0	11	69,459.3	8	91,055.0	9	89,306.2	9	86,394.4	8
Frozen: Value	98,143.4	6	47,051.0	4	38,185.0	5	67,371.2	8	211,340.2	9	88,571.8	8
Frozen: Weight	80,929.0	6	43,396.0	4	15,646.0	5	61,122.0	8	138,775.5	9	62,530.8	8
Unprocessed: Value	14,495.3	3	6,877.5	5	5,462.1	5	7,349.0	6	124,722.1	8	21,603.0	6
Unprocessed: Weight	21,722.0	3	9,380.0	5	5,886.6	5	9,444.9	7	137,952.0	8	36,098.0	7
Other: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

Table 6.7: Petrale sole: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	4,996,177.6	11	1,844,056.4	14	2,377,850.5	10	3,874,099.1	10	5,691,568.8	12	7,084,232.2	11
Fresh: Weight	1,446,807.8	11	464,386.2	14	432,345.0	10	739,271.7	10	1,077,783.7	12	1,427,054.8	11
Frozen: Value	633,252.9	7	303,380.0	8	362,705.1	7	432,902.9	7	1,498,582.8	10	1,316,563.7	10
Frozen: Weight	206,578.0	7	101,104.3	8	86,028.2	7	104,170.5	7	413,856.3	10	366,425.8	10
Unprocessed: Value	1,225,149.7	7	579,510.7	6	1,000,165.6	12	1,635,574.6	12	2,288,161.2	12	2,522,760.6	10
Unprocessed: Weight	804,472.2	7	308,609.2	6	394,443.9	12	592,868.6	12	1,225,671.8	13	1,500,567.8	10
Other: Value	0.0	0	0.0	0	***	***	0.0	0	***	***	***	***
Other: Weight	0.0	0	0.0	0	***	***	0.0	0	***	***	***	***

Table 6.8: Rex sole: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	609,139.6	11	363,372.0	9	477,728.3	9	454,030.6	8	498,770.8	9	369,697.8	7
Fresh: Weight	374,399.7	11	181,933.0	9	222,021.8	9	182,739.1	8	248,469.3	9	182,533.0	7
Frozen: Value	398,445.9	7	411,887.0	6	265,623.8	7	385,023.7	8	492,555.5	8	355,546.8	7
Frozen: Weight	265,406.0	7	324,736.0	6	163,305.0	7	202,388.0	8	286,316.4	8	243,347.4	7
Unprocessed: Value	32,371.0	6	13,681.4	5	13,159.8	7	51,430.7	6	54,164.1	8	37,272.8	8
Unprocessed: Weight	44,837.0	6	22,779.0	5	16,381.3	7	69,056.9	7	116,056.5	9	66,481.0	8
Other: Value	0.0	0	***	***	0.0	0	***	***	0.0	0	***	***
Other: Weight	0.0	0	***	***	0.0	0	***	***	0.0	0	***	***

Table 6.9: Arrowtooth flounder: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	—	—	—	—	811,716.7	8	596,147.9	9	588,432.0	9	296,316.4	8
Fresh: Weight	—	—	—	—	723,818.8	8	567,559.1	9	495,797.4	9	250,176.8	8
Frozen: Value	—	—	—	—	845,413.7	7	1,206,617.3	9	966,166.9	9	466,768.4	9
Frozen: Weight	—	—	—	—	***	***	1,394,255.2	9	1,365,845.3	9	422,090.3	9
Unprocessed: Value	—	—	—	—	***	***	6,279.0	3	33,724.0	4	***	***
Unprocessed: Weight	—	—	—	—	1,809.0	3	50,348.0	4	199,907.7	5	***	***
Other: Value	—	—	—	—	0.0	0	***	***	0.0	0	0.0	0
Other: Weight	—	—	—	—	0.0	0	***	***	0.0	0	0.0	0

Table 6.10: Lingcod: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	341,550.8	13	295,980.6	13	760,202.3	9	1,215,978.1	10	1,310,731.1	12	814,283.9	13
Fresh: Weight	90,870.8	13	70,571.1	13	190,931.1	9	311,120.6	10	313,838.2	12	173,399.3	13
Frozen: Value	59,672.5	5	50,764.5	5	192,811.9	6	131,202.3	6	170,491.5	7	54,717.5	7
Frozen: Weight	10,035.0	5	24,989.8	5	56,133.3	6	37,381.0	6	60,570.0	7	25,018.0	7
Unprocessed: Value	97,473.8	6	65,937.6	5	125,538.6	10	172,311.9	9	178,425.5	13	252,167.6	11
Unprocessed: Weight	78,372.2	6	39,419.4	5	46,367.9	10	69,288.9	10	82,321.9	14	86,372.4	12
Other: Value	***	***	***	***	***	***	***	***	***	***	***	***
Other: Weight	***	***	***	***	***	***	***	***	***	***	***	***

Table 6.11: Rockfish: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	3,042,196.0	16	2,584,703.2	16	3,039,027.8	12	4,278,740.4	11	3,536,841.2	13	3,834,040.8	13
Fresh: Weight	1,125,638.9	16	969,887.1	16	1,075,895.1	12	1,360,288.6	11	1,101,954.4	13	1,304,220.2	13
Frozen: Value	749,333.3	8	404,130.0	8	608,675.3	9	854,375.1	10	804,376.5	10	796,486.9	11
Frozen: Weight	377,321.2	8	216,771.7	8	330,507.3	9	438,278.7	10	559,228.8	10	704,585.2	11
Unprocessed: Value	419,217.5	7	506,486.7	6	1,227,802.6	14	940,226.6	12	1,561,311.1	16	1,585,225.4	14
Unprocessed: Weight	345,158.9	7	472,658.0	6	820,806.1	14	762,143.1	12	926,735.2	16	1,060,815.5	14
Other: Value	***	***	0.0	0	290,849.0	3	***	***	***	***	***	***
Other: Weight	***	***	0.0	0	162,082.0	3	***	***	***	***	***	***

Table 6.12: Sanddab: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	—	—	—	—	***	***	121,827.9	6	134,123.3	7	104,897.4	8
Fresh: Weight	—	—	—	—	9,312.1	5	23,671.8	6	26,197.8	7	25,848.3	8
Frozen: Value	—	—	—	—	220,889.2	8	189,132.0	7	238,791.8	7	328,939.8	6
Frozen: Weight	—	—	—	—	69,433.3	8	40,697.2	7	51,435.0	7	75,638.0	6
Unprocessed: Value	—	—	—	—	131,957.1	6	96,498.7	7	115,054.3	9	129,710.6	8
Unprocessed: Weight	—	—	—	—	105,329.4	6	72,235.8	7	82,958.1	10	91,929.6	8
Other: Value	—	—	—	—	***	***	***	***	***	***	***	***
Other: Weight	—	—	—	—	***	***	***	***	***	***	***	***

Table 6.13: Sharks, skates and rays: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	216,599.9	8	58,015.3	10	143,052.3	6	69,250.9	5	35,660.1	5	103,312.3	8
Fresh: Weight	183,775.1	8	35,078.5	10	46,390.9	6	108,855.0	5	13,125.2	5	48,668.8	8
Frozen: Value	1,520,332.0	8	1,690,729.0	6	1,919,674.1	8	2,337,107.8	9	1,871,943.6	9	2,239,381.2	9
Frozen: Weight	1,129,559.0	8	909,944.0	6	925,751.4	8	880,638.7	9	882,597.8	9	909,813.7	10
Unprocessed: Value	***	***	190,339.5	4	432,022.5	9	232,552.0	7	61,997.2	7	75,396.2	8
Unprocessed: Weight	***	***	318,312.0	4	492,747.7	9	321,379.3	8	146,976.0	9	287,278.8	8
Other: Value	***	***	0.0	0	***	***	0.0	0	0.0	0	0.0	0
Other: Weight	***	***	0.0	0	***	***	0.0	0	0.0	0	0.0	0

Table 6.14: Crab: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Canned: Value	***	***	***	***	***	***	***	***	***	***	***	***
Canned: Weight	***	***	***	***	61,187.9	3	***	***	***	***	***	***
Fresh: Value	23,121,212.3	13	34,598,393.1	16	34,238,692.3	15	34,333,459.2	15	46,161,392.0	16	32,499,396.5	14
Fresh: Weight	5,652,115.5	13	9,763,486.6	16	6,041,140.7	15	5,115,846.2	15	8,000,044.3	16	4,838,094.7	14
Frozen: Value	29,367,489.6	13	49,774,729.2	15	62,634,978.8	17	75,195,393.2	16	78,618,156.0	16	58,816,270.0	14
Frozen: Weight	5,897,010.6	13	11,744,505.0	15	10,932,153.8	17	11,660,981.7	16	12,640,177.1	16	7,781,348.5	14
Unprocessed: Value	948,269.7	5	1,061,282.4	4	4,061,361.2	8	8,981,999.6	9	5,754,357.2	10	14,948,360.6	13
Unprocessed: Weight	426,111.1	5	474,382.8	4	1,040,914.5	8	2,484,437.8	9	1,599,534.1	10	3,309,175.6	13
Other: Value	3,639,603.2	3	***	***	***	***	542,052.8	3	483,027.6	3	***	***
Other: Weight	***	***	***	***	***	***	42,704.0	3	30,442.8	3	***	***

Table 6.15: Shrimp: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Canned: Value	0.0	0	0.0	0	***	***	***	***	***	***	***	***
Canned: Weight	0.0	0	0.0	0	***	***	***	***	***	***	***	***
Fresh: Value	4,613,872.0	7	3,465,349.3	7	3,641,513.0	6	3,920,274.0	5	2,940,739.0	3	3,552,464.0	3
Fresh: Weight	3,018,993.0	7	2,469,150.8	7	1,178,126.0	6	1,234,488.0	5	862,081.0	3	1,032,903.0	3
Frozen: Value	19,111,917.0	7	19,156,829.0	9	53,295,636.3	11	56,254,005.3	12	59,233,112.8	13	86,214,802.6	14
Frozen: Weight	6,756,513.0	7	9,786,758.0	9	17,762,522.4	11	18,914,842.4	12	20,823,851.4	13	36,853,692.0	14
Unprocessed: Value	***	***	***	***	1,828,793.5	4	***	***	92,883.8	3	931,083.1	6
Unprocessed: Weight	***	***	***	***	915,992.0	4	30,586.0	3	88,444.4	4	1,301,975.0	6
Other: Value	0.0	0	***	***	0.0	0	0.0	0	0.0	0	***	***
Other: Weight	0.0	0	***	***	0.0	0	0.0	0	0.0	0	***	***

Table 6.16: Coastal pelagics: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Canned: Value	—	—	—	—	***	***	0.0	0	0.0	0	0.0	0
Canned: Weight	—	—	—	—	***	***	0.0	0	0.0	0	0.0	0
Fresh: Value	701,362.0	3	***	***	1,266,605.0	3	***	***	***	***	29,642.0	3
Fresh: Weight	2,123,256.0	3	76,592.0	3	***	***	***	***	***	***	71,644.0	3
Frozen: Value	6,125,610.3	7	4,798,377.3	7	11,671,315.6	11	36,616,895.5	10	17,374,436.4	8	15,804,463.3	7
Frozen: Weight	14,942,716.0	7	13,140,214.0	7	35,701,577.5	11	115,306,012.6	10	61,999,609.8	8	25,522,645.4	7
Unprocessed: Value	***	***	***	***	74,376.1	4	***	***	965,684.5	4	284,740.4	4
Unprocessed: Weight	***	***	***	***	28,886.0	4	1,248,439.5	3	5,531,620.6	5	571,491.6	4
Other: Value	5,989,042.5	3	6,480,189.0	3	***	***	0.0	0	***	***	0.0	0
Other: Weight	25,396,479.3	3	27,659,354.2	3	***	***	0.0	0	***	***	0.0	0

Table 6.17: Salmon: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Canned: Value	***	***	***	***	***	***	***	***	***	***	***	***
Canned: Weight	***	***	***	***	***	***	***	***	***	***	***	***
Fresh: Value	6,779,156.4	7	10,620,316.5	11	15,023,213.3	14	8,703,856.1	10	13,485,416.2	11	18,149,952.3	13
Fresh: Weight	1,957,069.9	7	2,443,504.5	11	3,509,623.2	15	1,631,188.1	10	2,430,116.6	11	4,036,543.2	13
Frozen: Value	***	***	6,693,300.6	9	9,375,778.2	13	3,387,695.1	11	19,058,061.1	14	11,491,961.6	13
Frozen: Weight	***	***	2,334,363.8	9	4,373,885.7	13	1,309,214.1	11	7,651,815.5	14	3,082,951.1	13
Smoked: Value	***	***	***	***	455,791.7	3	***	***	***	***	***	***
Smoked: Weight	***	***	***	***	48,829.3	3	***	***	***	***	***	***
Unprocessed: Value	875,682.0	3	1,391,759.0	4	3,004,969.8	9	7,694,589.2	9	9,602,305.3	9	14,886,007.9	12
Unprocessed: Weight	251,299.0	3	265,607.0	4	630,516.3	9	1,225,506.1	10	1,349,976.2	10	2,164,085.8	12
Other: Value	***	***	***	***	0.0	0	0.0	0	***	***	***	***
Other: Weight	***	***	***	***	0.0	0	0.0	0	***	***	***	***

Table 6.18: Tuna: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Canned: Value	***	***	***	***	***	***	***	***	***	***	***	***
Canned: Weight	***	***	***	***	***	***	***	***	***	***	***	***
Fresh: Value	632,757.0	5	633,996.6	8	863,780.6	5	494,462.9	6	256,396.2	7	918,066.7	8
Fresh: Weight	189,187.0	5	156,585.0	8	184,317.4	5	184,198.0	6	68,591.6	7	191,893.0	8
Frozen: Value	11,339,549.6	9	11,648,973.1	12	16,191,587.1	13	20,491,140.4	12	18,264,041.8	12	6,706,429.5	12
Frozen: Weight	7,935,249.8	9	6,725,986.3	12	6,159,406.4	13	11,219,158.1	12	9,032,372.0	12	3,177,431.4	12
Unprocessed: Value	***	***	369,124.0	3	1,682,521.3	10	1,961,659.3	7	644,338.1	8	5,560,768.0	8
Unprocessed: Weight	***	***	***	***	803,367.2	10	1,173,371.4	7	361,713.9	8	5,285,203.1	8
Other: Value	***	***	***	***	0.0	0	***	***	***	***	***	***
Other: Weight	***	***	***	***	0.0	0	***	***	***	***	***	***

Table 6.19: California halibut: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	***	***	833,760.7	6	581,062.8	6	17,151.0	3	107,758.1	4	423,887.2	5
Fresh: Weight	***	***	97,251.9	6	71,403.7	6	2,193.9	3	9,366.2	4	33,694.9	5
Frozen: Value	***	***	***	***	***	***	***	***	0.0	0	***	***
Frozen: Weight	***	***	***	***	***	***	***	***	0.0	0	***	***
Unprocessed: Value	504,382.3	4	***	***	609,229.6	6	449,368.5	5	682,709.4	6	629,321.5	6
Unprocessed: Weight	97,423.5	4	***	***	107,069.5	6	78,469.1	5	119,119.4	6	99,929.4	6
Other: Value	0.0	0	***	***	0.0	0	0.0	0	0.0	0	0.0	0
Other: Weight	0.0	0	***	***	0.0	0	0.0	0	0.0	0	0.0	0

Table 6.20: Pacific halibut: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Fresh: Value	3,032,852.0	5	1,297,073.0	6	1,572,650.6	9	785,294.7	4	1,058,780.0	5	1,076,422.5	7
Fresh: Weight	539,472.0	5	136,244.0	6	161,826.3	9	107,707.3	4	133,432.2	5	122,153.1	7
Frozen: Value	298,273.0	4	169,415.1	4	170,472.3	4	247,295.8	5	128,306.1	5	53,396.4	5
Frozen: Weight	44,963.0	4	19,185.0	4	17,108.0	4	31,797.6	5	17,520.3	5	***	***
Unprocessed: Value	***	***	***	***	813,506.8	5	3,085,534.2	5	2,677,835.4	4	3,630,915.5	5
Unprocessed: Weight	***	***	***	***	106,209.3	5	486,066.4	6	417,843.6	5	479,781.2	5
Other: Value	***	***	***	***	***	***	0.0	0	***	***	0.0	0
Other: Weight	***	***	***	***	***	***	0.0	0	***	***	0.0	0

Table 6.21: Other: Total production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Bait: Value	—	—	—	—	***	***	835,040.9	3	1,346,654.8	5	1,585,660.0	3
Bait: Weight	—	—	—	—	***	***	1,881,437.0	3	2,174,558.8	5	2,869,212.0	3
Canned: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Canned: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Fish oil: Value	***	***	***	***	***	***	***	***	***	***	0.0	0
Fish oil: Weight	***	***	***	***	***	***	***	***	***	***	0.0	0
Fishmeal: Value	***	***	***	***	***	***	***	***	***	***	0.0	0
Fishmeal: Weight	***	***	***	***	***	***	***	***	***	***	0.0	0
Fresh: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Fresh: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Frozen: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Frozen: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Unprocessed: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Unprocessed: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other: Value	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other: Weight	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

6.4 Average value and weight of fish production by product type and species

Table 6.22: Pacific whiting: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fillet: Value	1,971,250 :	3	2,408,431 :	4	4,067,676 :	3	2,288,748 :	3	***	***	***	***
Fillet: Weight	1,800,647 :	3	2,050,908 :	4	6,245,201 :	3	2,291,489 :	3	***	***	5,388,096 :	3
Frozen: Value	***	***	313,077 :	4	1,510,596 :	6	687,253 :	6	722,018 :	9	425,971 :	6
Frozen: Weight	***	***	938,274 :	4	5,197,564 :	6	1,303,948 :	6	2,868,557 :	9	1,425,311 :	6
Headed-and-gutted: Value	3,598,843 :	10	1,926,176 :	10	4,602,163 :	9	3,783,488 :	7	5,138,420 :	8	4,365,420 :	8
Headed-and-gutted: Weight	6,439,584 :	10	3,424,362 :	10	8,212,241 :	9	5,745,220 :	7	10,321,947 :	8	8,593,414 :	8
Roe: Value		0		0		0		0		0		0
Roe: Weight		0		0		0		0		0		0
Surimi: Value	***	***	***	***	***	***	***	***	***	***	***	***
Surimi: Weight	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed: Value	***	***	11,636 :	3	***	***	***	***	***	***	***	***
Unprocessed: Weight	***	***	110,657 :	3	***	***	1,595,630 :	3	***	***	***	***
Other: Value	***	***	***	***	***	***	804,291 :	4	***	***	***	***
Other: Weight	***	***	***	***	***	***	1,517,572 :	4	***	***	***	***

Table 6.23: Dover sole: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	1,192,471 ⁝	12	1,151,016 ⁝	12	1,201,456 ⁝	10	1,057,293 ⁝	12	1,301,483 ⁝	10	1,019,638 ⁝	11
Fresh: Weight	532,088 ⁝	12	462,802 ⁝	12	360,695 ⁝	10	302,593 ⁝	12	367,825 ⁝	10	282,531 ⁝	11
Frozen: Value	272,417 ⁝	10	180,916 ⁝	11	146,537 ⁝	11	249,941 ⁝	10	259,530 ⁝	10	194,972 ⁝	9
Frozen: Weight	126,988 ⁝	10	115,156 ⁝	11	55,080 ⁝	11	99,658 ⁝	10	129,110 ⁝	10	55,328 ⁝	9
Unprocessed: Value	5,447 ⁝	5	13,034 ⁝	6	8,447 ⁝	8	16,548 ⁝	8	82,035 ⁝	6	53,739 ⁝	6
Unprocessed: Weight	10,407 ⁝	5	12,454 ⁝	6	11,457 ⁝	8	77,545 ⁝	10	171,317 ⁝	6	94,287 ⁝	6
Other: Value	***	***	***	***		0	***	***	***	***		0
Other: Weight	***	***	***	***		0	***	***	***	***		0

Table 6.24: Sablefish: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	456,141	11	470,216	14	508,939	12	263,501	13	234,839	14	310,222	13
Fresh: Weight	112,111	11	90,660	14	152,932	12	51,704	13	61,719	14	48,704	13
Frozen: Value	2,464,956	11	2,317,745	13	2,525,472	12	2,014,803	13	1,284,335	14	1,538,694	12
Frozen: Weight	502,520	11	430,725	13	352,583	12	362,603	13	265,787	14	277,050	12
Unprocessed: Value	524,521	3	491,324	4	169,663	9	201,140	7	185,566	10	266,515	11
Unprocessed: Weight	186,837	3	168,302	4	42,039	9	66,703	8	70,564	11	93,715	11
Other: Value	***	***	***	***		0	91,110	4	***	***	***	***
Other: Weight	***	***	***	***		0	16,882	4	***	***	***	***

Table 6.25: Thornyheads: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	46,524 ⁝	5	52,325 ⁝	7	3,381 ⁝	3	***	***	4,881 ⁝	5	103,379 ⁝	6
Fresh: Weight	38,734 ⁝	5	45,169 ⁝	7	1,800 ⁚	3	***	***	2,335 ⁝	5	29,962 ⁝	7
Frozen: Value	602,253 ⁚	7	643,775 ⁚	7	482,823 ⁚	8	561,695 ⁚	9	501,778 ⁝	10	336,811 ⁝	9
Frozen: Weight	256,758 ⁚	7	290,611 ⁚	7	141,421 ⁚	8	154,177 ⁚	9	165,859 ⁝	10	107,305 ⁝	9
Unprocessed: Value	34,796 ⁝	3	39,691 ⁚	4	46,872 ⁝	10	66,313 ⁚	9	126,231 ⁚	8	190,658 ⁚	7
Unprocessed: Weight	28,291 ⁝	3	40,525 ⁚	4	31,324 ⁝	10	37,725 ⁝	10	82,439 ⁝	9	115,364 ⁚	7
Other: Value		0	***	***	***	***	***	***		0		0
Other: Weight		0	***	***	***	***	***	***		0		0

Table 6.26: English sole: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	40,787 ⁝	11	21,171 ⁝	11	27,745 ⁝	8	34,272 ⁝	9	31,840 ⁝	9	35,664 ⁝	8
Fresh: Weight	19,146 ⁝	11	9,463 ⁝	11	8,682 ⁝	8	10,117 ⁝	9	9,923 ⁝	9	10,799 ⁝	8
Frozen: Value	16,357 ⁚	6	11,763 ⁚	4	7,637 ⁝	5	8,421 ⁝	8	23,482 ⁝	9	11,071 ⁚	8
Frozen: Weight	13,488 ⁝	6	10,849 ⁝	4	3,129 ⁝	5	7,640 ⁝	8	15,420 ⁝	9	7,816 ⁝	8
Unprocessed: Value	4,832 ˙	3	1,376 ⁝	5	1,092 ⁚	5	1,225 ⁚	6	15,590 ⁝	8	3,600 ⁝	6
Unprocessed: Weight	7,241 ˙	3	1,876 ⁝	5	1,177 ⁚	5	1,349 ⁝	7	17,244 ⁝	8	5,157 ⁝	7
Other: Value		0		0		0		0		0		0
Other: Weight		0		0		0		0		0		0

Table 6.27: Petrale sole: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	454,198	11	131,718	14	237,785	10	387,410	10	474,297	12	644,021	11
Fresh: Weight	131,528	11	33,170	14	43,235	10	73,927	10	89,815	12	129,732	11
Frozen: Value	90,465	7	37,923	8	51,815	7	61,843	7	149,858	10	131,656	10
Frozen: Weight	29,511	7	12,638	8	12,290	7	14,881	7	41,386	10	36,643	10
Unprocessed: Value	175,021	7	96,585	6	83,347	12	136,298	12	190,680	12	252,276	10
Unprocessed: Weight	114,925	7	51,435	6	32,870	12	49,406	12	94,282	13	150,057	10
Other: Value		0		0	***	***		0	***	***	***	***
Other: Weight		0		0	***	***		0	***	***	***	***

Table 6.28: Rex sole: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	55,376	11	40,375	9	53,081	9	56,754	8	55,419	9	52,814	7
Fresh: Weight	34,036	11	20,215	9	24,669	9	22,842	8	27,608	9	26,076	7
Frozen: Value	56,921	7	68,648	6	37,946	7	48,128	8	61,569	8	50,792	7
Frozen: Weight	37,915	7	54,123	6	23,329	7	25,299	8	35,790	8	34,764	7
Unprocessed: Value	5,395	6	2,736	5	1,880	7	8,572	6	6,771	8	4,659	8
Unprocessed: Weight	7,473	6	4,556	5	2,340	7	9,865	7	12,895	9	8,310	8
Other: Value		0	***	***		0	***	***		0	***	***
Other: Weight		0	***	***		0	***	***		0	***	***

Table 6.29: Arrowtooth flounder: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	—	—	—	—	101,465	8	66,239	9	65,381	9	37,040	8
Fresh: Weight	—	—	—	—	90,477	8	63,062	9	55,089	9	31,272	8
Frozen: Value	—	—	—	—	120,773	7	134,069	9	107,352	9	51,863	9
Frozen: Weight	—	—	—	—	***	***	154,917	9	151,761	9	46,899	9
Unprocessed: Value	—	—	—	—	***	***	2,093	3	8,431	4	***	***
Unprocessed: Weight	—	—	—	—	603	3	12,587	4	39,982	5	***	***
Other: Value	—	—	—	—		0	***	***		0		0
Other: Weight	—	—	—	—		0	***	***		0		0

Table 6.30: Lingcod: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	26,273 ⁝	13	22,768 ⁝	13	84,467 ⁝	9	121,598 ⁝	10	109,228 ⁝	12	62,637 ⁝	13
Fresh: Weight	6,990 ⁝	13	5,429 ⁝	13	21,215 ⁝	9	31,112 ⁝	10	26,153 ⁝	12	13,338 ⁝	13
Frozen: Value	11,934 ⁝	5	10,153 ⁝	5	32,135 ⁝	6	21,867 ⁝	6	24,356 ⁝	7	7,817 ⁝	7
Frozen: Weight	2,007 ⁝	5	4,998 ⁝	5	9,356 ⁝	6	6,230 ⁝	6	8,653 ⁝	7	3,574 ⁝	7
Unprocessed: Value	16,246 ⁝	6	13,188 ⁝	5	12,554 ⁝	10	19,146 ⁝	9	13,725 ⁝	13	22,924 ⁝	11
Unprocessed: Weight	13,062 ⁝	6	7,884 ⁝	5	4,637 ⁝	10	6,929 ⁝	10	5,880 ⁝	14	7,198 ⁝	12
Other: Value	***	***	***	***	***	***	***	***	***	***	***	***
Other: Weight	***	***	***	***	***	***	***	***	***	***	***	***

Table 6.31: Rockfish: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	190,137	16	161,544	16	253,252	12	388,976	11	272,065	13	294,926	13
Fresh: Weight	70,352	16	60,618	16	89,658	12	123,663	11	84,766	13	100,325	13
Frozen: Value	93,667	8	50,516	8	67,631	9	85,438	10	80,438	10	72,408	11
Frozen: Weight	47,165	8	27,096	8	36,723	9	43,828	10	55,923	10	64,053	11
Unprocessed: Value	59,888	7	84,414	6	87,700	14	78,352	12	97,582	16	113,230	14
Unprocessed: Weight	49,308	7	78,776	6	58,629	14	63,512	12	57,921	16	75,773	14
Other: Value	***	***		0	96,950	3	***	***	***	***	***	***
Other: Weight	***	***		0	54,027	3	***	***	***	***	***	***

Table 6.32: Sanddab: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	—	—	—	—	***	***	20,305 ⁝	6	19,160 ⁝	7	13,112 ⁝	8
Fresh: Weight	—	—	—	—	1,862 ⁝	5	3,945 ⁝	6	3,743 ⁝	7	3,231 ⁝	8
Frozen: Value	—	—	—	—	27,611 ⁝	8	27,019 ⁝	7	34,113 ⁝	7	54,823 ⁝	6
Frozen: Weight	—	—	—	—	8,679 ⁝	8	5,814 ⁝	7	7,348 ⁝	7	12,606 ⁝	6
Unprocessed: Value	—	—	—	—	21,993 ⁝	6	13,786 ⁝	7	12,784 ⁝	9	16,214 ⁝	8
Unprocessed: Weight	—	—	—	—	17,555 ⁝	6	10,319 ⁝	7	8,296 ⁝	10	11,491 ⁝	8
Other: Value	—	—	—	—	***	***	***	***	***	***	***	***
Other: Weight	—	—	—	—	***	***	***	***	***	***	***	***

Table 6.33: Sharks, skates and rays: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	27,075 ⁝	8	5,802 ⁝	10	23,842 ⁝	6	13,850 ⁝	5	7,132 ⁝	5	12,914 ⁝	8
Fresh: Weight	22,972 ⁝	8	3,508 ⁝	10	7,732 ⁝	6	21,771 ⁝	5	2,625 ⁝	5	6,084 ⁝	8
Frozen: Value	190,042 ⁝	8	281,788 ⁝	6	239,959 ⁝	8	259,679 ⁝	9	207,994 ⁝	9	248,820 ⁝	9
Frozen: Weight	141,195 ⁝	8	151,657 ⁝	6	115,719 ⁝	8	97,849 ⁝	9	98,066 ⁝	9	90,981 ⁝	10
Unprocessed: Value	***	***	47,585 ⁝	4	48,002 ⁝	9	33,222 ⁝	7	8,857 ⁝	7	9,425 ⁝	8
Unprocessed: Weight	***	***	79,578 ⁝	4	54,750 ⁝	9	40,172 ⁝	8	16,331 ⁝	9	35,910 ⁝	8
Other: Value	***	***		0	***	***		0		0		0
Other: Weight	***	***		0	***	***		0		0		0

Table 6.34: Crab: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Canned: Value	***	***	***	***	***	***	***	***	***	***	***	***
Canned: Weight	***	***	***	***	20,396 ⁝	3	***	***	***	***	***	***
Fresh: Value	1,778,555 ⁝	13	2,162,400 ⁝	16	2,282,579 ⁝	15	2,288,897 ⁝	15	2,885,087 ⁝	16	2,321,385 ⁝	14
Fresh: Weight	434,778 ⁝	13	610,218 ⁝	16	402,743 ⁝	15	341,056 ⁝	15	500,003 ⁝	16	345,578 ⁝	14
Frozen: Value	2,259,038 ⁝	13	3,318,315 ⁝	15	3,684,411 ⁝	17	4,699,712 ⁝	16	4,913,635 ⁝	16	4,201,162 ⁝	14
Frozen: Weight	453,616 ⁝	13	782,967 ⁝	15	643,068 ⁝	17	728,811 ⁝	16	790,011 ⁝	16	555,811 ⁝	14
Unprocessed: Value	189,654 ⁝	5	265,321 ⁝	4	507,670 ⁝	8	998,000 ⁝	9	575,436 ⁝	10	1,149,874 ⁝	13
Unprocessed: Weight	85,222 ⁝	5	118,596 ⁝	4	130,114 ⁝	8	276,049 ⁝	9	159,953 ⁝	10	254,552 ⁝	13
Other: Value	1,213,201 ⁝	3	***	***	***	***	180,684 ⁝	3	161,009 ⁝	3	***	***
Other: Weight	***	***	***	***	***	***	14,235 ⁝	3	10,148 ⁝	3	***	***

Table 6.35: Shrimp: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Canned: Value		0		0	***	***	***	***	***	***	***	***
Canned: Weight		0		0	***	***	***	***	***	***	***	***
Fresh: Value	659,125 ⁝	7	495,050 ⁝	7	606,919 ⁝	6	784,055 ⁝	5	980,246 ⁝	3	1,184,155 ⁝	3
Fresh: Weight	431,285 ⁝	7	352,736 ⁝	7	196,354 ⁝	6	246,898 ⁝	5	287,360 ⁝	3	344,301 ⁝	3
Frozen: Value	2,730,274 ⁝	7	2,128,537 ⁝	9	4,845,058 ⁝	11	4,687,834 ⁝	12	4,556,393 ⁝	13	6,158,200 ⁝	14
Frozen: Weight	965,216 ⁝	7	1,087,418 ⁝	9	1,614,775 ⁝	11	1,576,237 ⁝	12	1,601,835 ⁝	13	2,632,407 ⁝	14
Unprocessed: Value	***	***	***	***	457,198 ⁝	4	***	***	30,961 ⁝	3	155,181 ⁝	6
Unprocessed: Weight	***	***	***	***	228,998 ⁝	4	10,195 ⁝	3	22,111 ⁝	4	216,996 ⁝	6
Other: Value		0	***	***		0		0		0	***	***
Other: Weight		0	***	***		0		0		0	***	***

Table 6.36: Coastal pelagics: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Canned: Value	—	—	—	—	***	***		0		0		0
Canned: Weight	—	—	—	—	***	***		0		0		0
Fresh: Value	233,787 :	3	***	***	422,202 ⁝	3	***	***	***	***	9,881 :	3
Fresh: Weight	707,752 ⁝	3	25,531 :	3	***	***	***	***	***	***	23,881 :	3
Frozen: Value	875,087 :	7	685,482 :	7	1,061,029 ⁝	11	3,661,690 ⁝	10	2,171,805 ⁝	8	2,257,780 ⁝	7
Frozen: Weight	2,134,674 :	7	1,877,173 :	7	3,245,598 ⁝	11	11,530,601 ⁝	10	7,749,951 ⁝	8	3,646,092 ⁝	7
Unprocessed: Value	***	***	***	***	18,594 ⁝	4	***	***	241,421 ⁝	4	71,185 ⁝	4
Unprocessed: Weight	***	***	***	***	7,222 :	4	416,146 ·	3	1,106,324 ⁝	5	142,873 ⁝	4
Other: Value	1,996,348 ⁝	3	2,160,063 ⁝	3	***	***		0	***	***		0
Other: Weight	8,465,493 ⁝	3	9,219,785 ⁝	3	***	***		0	***	***		0

Table 6.37: Salmon: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Canned: Value	***	***	***	***	***	***	***	***	***	***	***	***
Canned: Weight	***	***	***	***	***	***	***	***	***	***	***	***
Fresh: Value	968,451	7	965,483	11	1,073,087	14	870,386	10	1,225,947	11	1,396,150	13
Fresh: Weight	279,581	7	222,137	11	233,975	15	163,119	10	220,920	11	310,503	13
Frozen: Value	***	***	743,700	9	721,214	13	307,972	11	1,361,290	14	883,997	13
Frozen: Weight	***	***	259,374	9	336,453	13	119,019	11	546,558	14	237,150	13
Smoked: Value	***	***	***	***	151,931	3	***	***	***	***	***	***
Smoked: Weight	***	***	***	***	16,276	3	***	***	***	***	***	***
Unprocessed: Value	291,894	3	347,940	4	333,886	9	854,954	9	1,066,923	9	1,240,501	12
Unprocessed: Weight	83,766	3	66,402	4	70,057	9	122,551	10	134,998	10	180,340	12
Other: Value	***	***	***	***		0		0	***	***	***	***
Other: Weight	***	***	***	***		0		0	***	***	***	***

Table 6.38: Tuna: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Canned: Value	***	***	***	***	***	***	***	***	***	***	***	***
Canned: Weight	***	***	***	***	***	***	***	***	***	***	***	***
Fresh: Value	126,551	5	79,250	8	172,756	5	82,410	6	36,628	7	114,758	8
Fresh: Weight	37,837	5	19,573	8	36,863	5	30,700	6	9,799	7	23,987	8
Frozen: Value	1,259,950	9	970,748	12	1,245,507	13	1,707,595	12	1,522,003	12	558,869	12
Frozen: Weight	881,694	9	560,499	12	473,800	13	934,930	12	752,698	12	264,786	12
Unprocessed: Value	***	***	123,041	3	168,252	10	280,237	7	80,542	8	695,096	8
Unprocessed: Weight	***	***	***	***	80,337	10	167,624	7	45,214	8	660,650	8
Other: Value	***	***	***	***		0	***	***	***	***	***	***
Other: Weight	***	***	***	***		0	***	***	***	***	***	***

Table 6.39: California halibut: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	***	***	138,960 ⁝	6	96,844 ⁝	6	5,717 ⁝	3	26,940 ⁝	4	84,777 ⁝	5
Fresh: Weight	***	***	16,209 ⁝	6	11,901 ⁝	6	731 ⁝	3	2,342 ⁝	4	6,739 ⁝	5
Frozen: Value	***	***	***	***	***	***	***	***		0	***	***
Frozen: Weight	***	***	***	***	***	***	***	***		0	***	***
Unprocessed: Value	126,096 ⁝	4	***	***	101,538 ⁝	6	89,874 ⁝	5	113,785 ⁝	6	104,887 ⁝	6
Unprocessed: Weight	24,356 ⁝	4	***	***	17,845 ⁝	6	15,694 ⁝	5	19,853 ⁝	6	16,655 ⁝	6
Other: Value		0	***	***		0		0		0		0
Other: Weight		0	***	***		0		0		0		0

Table 6.40: Pacific halibut: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Fresh: Value	606,570	5	216,179	6	174,739	9	196,324	4	211,756	5	153,775	7
Fresh: Weight	107,894	5	22,707	6	17,981	9	26,927	4	26,686	5	17,450	7
Frozen: Value	74,568	4	42,354	4	42,618	4	49,459	5	25,661	5	10,679	5
Frozen: Weight	11,241	4	4,796	4	4,277	4	6,360	5	3,504	5	***	***
Unprocessed: Value	***	***	***	***	162,701	5	617,107	5	669,459	4	726,183	5
Unprocessed: Weight	***	***	***	***	21,242	5	81,011	6	83,569	5	95,956	5
Other: Value	***	***	***	***	***	***		0	***	***		0
Other: Weight	***	***	***	***	***	***		0	***	***		0

Table 6.41: Other: Average production weight (lbs.) and value ($) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Bait: Value	—	—	—	—	***	***	278,347 ⁝	3	269,331 ⁝	5	528,553 ⁝	3
Bait: Weight	—	—	—	—	***	***	627,146 ⁝	3	434,912 ⁝	5	956,404 ⁝	3
Canned: Value		0		0		0		0		0		0
Canned: Weight		0		0		0		0		0		0
Fish oil: Value	***	***	***	***	***	***	***	***	***	***		0
Fish oil: Weight	***	***	***	***	***	***	***	***	***	***		0
Fishmeal: Value	***	***	***	***	***	***	***	***	***	***		0
Fishmeal: Weight	***	***	***	***	***	***	***	***	***	***		0
Fresh: Value		0		0		0		0		0		0
Fresh: Weight		0		0		0		0		0		0
Frozen: Value		0		0		0		0		0		0
Frozen: Weight		0		0		0		0		0		0
Unprocessed: Value		0		0		0		0		0		0
Unprocessed: Weight		0		0		0		0		0		0
Other: Value		0		0		0		0		0		0
Other: Weight		0		0		0		0		0		0

EDC Non-Processors

This section of the report summarizes information about first receivers that report no processing activity. These companies have first receiver site licenses but do not process any fish. For the purposes of this report, such first receivers are called "EDC Non-Processors." In 2009 and 2010, only entities that processed groundfish were required to fill out the entire EDC form. From 2011 onward, all entities with a first receiver site license were required to fill out the entire form. Thus, this section will only report summary statistics for 2011 onward.

7 Facility Value

Table 7.1: Value of facility. Market value and replacement value of facility from the most recent appraisal (thousands of $) (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Market value	—	—	—	—	$267.00	3	$267.00	3	***	***	***	***
Replacement value	—	—	—	—	***	***	***	***	***	***		0

8 Employment

This section describes the employment information for EDC Non-Processors. Refer to Section 3 for more details on employment information collected on the EDC form.

8.1 Production workers

Table 8.1: Weekly employment: Number of production workers. Number of production workers for the week that includes the 12th of the month (N = number of EDC Non-Processors with non-zero, non-NA responses).

Month	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
January	—	—	—	—	10˙	4	12:	4	12:	3	***	***
February	—	—	—	—	10˙	4	9:	4	11:	3	***	***
March	—	—	—	—	10:	4	8:	4	8:	3	***	***
April	—	—	—	—	10:	5	12:	4	9:	3	***	***
May	—	—	—	—	11:	5	16:	4	9:	3	***	***
June	—	—	—	—	11:	5	13:	4	9:	3	***	***
July	—	—	—	—	16:	5	16:	4	10:	3	***	***
August	—	—	—	—	14:	5	18:	4	11:	3	***	***
September	—	—	—	—	19⁝	5	18:	4	10:	3	***	***
October	—	—	—	—	12:	5	20:	4	9:	3	***	***
November	—	—	—	—	14:	5	19:	4	11:	3	***	***
December	—	—	—	—	12:	5	12:	4	9:	3	***	***

Table 8.2: Weekly employment: Production worker hours. Hours worked by production workers for the week that includes the 12th of the month (N = number of EDC Non-Processors with non-zero, non-NA responses).

Month	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
January	—	—	—	—	555.9⁝	4	266.6˙	4	284.8⁝	3	***	***
February	—	—	—	—	408.8⁝	4	206.0⁝	4	316.8⁝	3	***	***
March	—	—	—	—	383.6⁝	4	192.0⁝	4	230.6⁝	3	***	***
April	—	—	—	—	382.3⁝	5	225.1⁝	4	196.6⁝	3	***	***
May	—	—	—	—	535.4⁝	5	323.6⁝	4	303.3⁝	3	***	***
June	—	—	—	—	641.4⁝	5	303.7⁝	4	235.8⁝	3	***	***
July	—	—	—	—	608.3⁝	5	397.5⁝	4	243.6˙	3	***	***
August	—	—	—	—	601.7⁝	5	519.6⁝	4	253.1⁝	3	***	***
September	—	—	—	—	737.0⁝	5	461.4⁝	4	252.8⁝	3	***	***
October	—	—	—	—	533.7⁝	5	593.7⁝	4	231.7⁝	3	***	***
November	—	—	—	—	684.2⁝	5	458.9⁝	4	290.5⁝	3	***	***
December	—	—	—	—	642.2⁝	5	219.6˙	4	316.8⁝	3	***	***

8.2 Non-production employees

Table 8.3: Weekly employment: Non-production employees. Number of non-production employees and hours worked for the week that includes March 12 (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Hours Worked	—	—	—	—	62.7⁝	7	67.3⁝	6	84.2˙	3	***	***
Number of employees	—	—	—	—	1.9˙	7	2.2˙	6	2.7˙	3	***	***

8.3 Compensation

Hourly compensation for each EDC Non-Processor is calculated by dividing annual labor expenses (Section 4.2) by an estimate of total annual hours worked. The EDC form requests information on the number of employees and total hours worked for the week including the 12th day of the month for production workers and for the week including the 12th day in March for non-production employees. Estimates of total annual hours worked for each company are calculated by assuming that employment information for the week of the 12th is representative of the entire month and by weighting each month equally using the following formula:

$$\sum_{m=1}^{12} (\frac{Hours_m}{week_m}) * \frac{52}{12}$$

Table 8.4: Hourly compensation. Average hourly compensation. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Employee type	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	—	—	—	—	$6.94⁝	4	$10.68˙	4	$10.91˙	3	***	***
Non-production	—	—	—	—	$8.63⁝	5	$13.87⁝	5	$22.96⁝	3	***	***

Compensation per position for each EDC Non-Processor is calculated by dividing annual labor expenses (Section 4.2) by the average numbers of workers across months in the year. This assumes that the average number of workers is representative of the total number of positions that year. For non-production workers, it is assumed that the number of workers in the week containing March 12th is representative of the number of non-production employee positions in all weeks during the year.

Table 8.5: Compensation per position. Average compensation per position. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Employee type	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	—	—	—	—	$14,352˙	4	$14,639˙	4	$15,527˙	3	***	***
Non-production	—	—	—	—	$12,676˙	5	$19,930⁝	5	$31,690˙	3	***	***

9 Costs

This section of the report describes the cost data that are collected on the EDC first receiver and shorebased processor form for companies that report no processing activities. There were not enough responses to summarize fixed costs by category and maintain data confidentiality. Thus, fixed costs are only reported at an aggregated level. This information is contained in Table 16.1. Refer to Section 4 for more information on what comprises fixed costs and variable costs.

There are a variety of costs that are associated with running a first receiver or shorebased processing facility that are not requested on the EDC form. This is because it is difficult to determine the share of the costs associated with the facility. These expenses include trucks, and professional fees. In general, the EDC forms aim to collect costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment beyond the facility (one exception is off-site product freezing and storage). For these reasons, the EDC aggregated measures of costs (variable costs, fixed costs and total costs) underestimate the true costs of operating a business.

9.1 Variable Costs

Labor expenses

Table 9.1: Employment expenses. Total annual labor expenses for all employees (includes wages, bonuses, benefits, payroll taxes, and unemployment insurance) (thousands of $). (N = number of EDC Non-Processors with non-zero, non-NA responses).

Employee type	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Production	—	—	—	—	$145:	5	$176:	4	$139·	3	***	***
Non-production	—	—	—	—	$25:	5	$47:	5	$83·	3	***	***

Quota costs

Not enough EDC Non-Processors reported quota costs to be able to display this information.

Other expenses

Utility expenses include electricity, natural gas, propane gas, water, and sewer, waste and byproduct disposal expenses.

Table 9.2: Other expenses (thousands of $). (N = number of EDC Non-Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Cleaning and custodial supplies	—	—	—	—	$1.5⁝	4	$1.3⁝	6	$0.8⁝	4	$0.7⁝	3
Freight costs for supplies	—	—	—	—		0	***	***	$2.7⁝	3	***	***
Insurance (property, product, and personal liability)	—	—	—	—	$4.2⁝	5	$15.1⁝	5	$27.0⁝	3	$6.1⁝	3
Licensing fees	—	—	—	—	$1.1⁝	8	$1.3⁝	8	$2.2⁝	5	$2.4⁝	5
Non-fish ingredients (additives)	—	—	—	—		0		0	***	***		0
Offloading	—	—	—	—	$11.4⁝	3	***	***	***	***	***	***
Packing materials	—	—	—	—	***	***	$23.7⁝	6	$35.2⁝	5	$8.3⁝	3
Production supplies	—	—	—	—	$0.8⁝	3	$0.9⁝	4	***	***	***	***
Shoreside monitoring	—	—	—	—	$0.4⁝	7	$1.6⁝	5	$3.3⁝	3	$2.6⁝	5
Taxes (property and excise)	—	—	—	—	$2.8⁝	5	$8.6⁝	5	$17.0⁝	3	$3.7⁝	3
Utilities	—	—	—	—	$12.3⁝	15	$12.1⁝	16	$9.1⁝	11	$7.7⁝	11

9.2 Fish purchases

The following tables describe fish purchases by EDC Non-Processors. There were not enough responses to summarize fish purchases for each species requested on the EDC form. Thus, fish purchase information for these companies is aggregated to the following five species groups: **groundfish, sablefish, rockfish, crab, and other species.**

Respondents are asked to provide the weight and cost of fish received during the survey year. This includes: 1) the weight of fish paid for; 2) the weight of those not paid for due to size or quality reasons; and 3) the weight of fish not paid for due to intra-company transfers.

The cost of fish from vessel or non-vessel sources includes the value of any taxes paid on behalf of delivering vessels. Purchase weight and cost information is requested by categories for different species types and sources. For catch share species, the fish source categories are: 1) Limited Entry (LE) Trawl; 2) LE Fixed Gear; 3) Other vessels; and 4) Non-vessel sources. For non-catch share species, the fish source categories are: 1) Vessel sources; and 2) Non-vessel sources. LE Trawl represents fish acquired directly from a vessel registered to a LE permit with a trawl endorsement and caught with either trawl or fixed gear. LE Fixed Gear represents fish acquired directly from a vessel with a fixed gear endorsement. This does not include fish caught with a fixed gear on a LE permit with a trawl endorsement, i.e., the gear switching provision of the catch share program, which are included under LE trawl. Other vessels are those without either a LE Trawl or LE Fixed Gear endorsement. Non-vessel sources include fish acquired from other entities, including other first receivers, processors, wholesale dealers, brokers, aquaculture producers, and transfers from outside the facility.

Fish that are not paid for are excluded from the tables in this section. This includes fish recorded as having zero value due to size or quality reasons, as well as fish that are received for custom processing. The tables do include post season adjustments and fish purchased that are then custom processed by another processor outside the facility. As stated in the introduction to this report, respondents fill out the EDC form according to their fiscal year, so pounds listed for each species may not have been purchased during the calendar year indicated by the column header, and therefore these values may not align directly to state-fish ticket data.

9.3 Total cost and weight of fish purchases by source and species group

Table 9.3: Groundfish (excluding rockfish and sablefish): Total purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	***	18	***	***	***	***	0	0	0	0	0	0
LE Trawl	—	—	—	—	—	—	106	154	4	371	183	4	***	***	***	***	***	***
Non-vessel	—	—	—	—	—	—	0	0	0	0	0	0	0	0	0	0	0	0
Other Vessel	—	—	—	—	—	—	***	***	***	0	0	0	0	0	0	0	0	0

Table 9.4: Rockfish: Total purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	***	***	***	***	***	***	0	0	0	0	0	0
LE Trawl	—	—	—	—	—	—	107	63	4	109	57	4	***	***	***	20	15	3
Non-vessel	—	—	—	—	—	—	0	0	0	0	0	0	0	0	0	0	0	0
Other Vessel	—	—	—	—	—	—	***	***	***	0	0	0	0	0	0	0	0	0

Table 9.5: Sablefish: Total purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	83	120	3	***	***	***	***	***	***	0	0	0
LE Trawl	—	—	—	—	—	—	***	***	***	14	11	3	***	***	***	***	***	***
Non-vessel	—	—	—	—	—	—	0	0	0	0	0	0	0	0	0	0	0	0
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***	0	0	0	0	0	0

Table 9.6: Crab: Total purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Non-vessel	—	—	—	—	—	—	0	0	0	0	0	0	0	0	0	0	0	0
Vessel	—	—	—	—	—	—	994	2,368	4	671	2,028	4	874	2,867	5	***	***	***

Table 9.7: Other: Total purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	0	0	0	0	0	0	0	0	0	0	0	0
LE Trawl	—	—	—	—	—	—	0	0	0	***	***	***	***	***	***	***	***	***
Non-vessel	—	—	—	—	—	—	***	***	***	***	***	***	0	0	0	0	0	0
Vessel	—	—	—	—	—	—	***	1,857	***	675	1,292	3	602	1,668	4	***	***	***
Other Vessel	—	—	—	—	—	—	0	0	0	0	0	0	0	0	0	0	0	0

9.4 Mean cost and weight of fish purchases by source and species group

Table 9.8: Groundfish (excluding rockfish and sablefish): Average purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	***	4⁝	***	***	***	***			0			0
LE Trawl	—	—	—	—	—	—	26⁝	38⁝	4	93⁝	46⁝	4	***	***	***	***	***	***
Non-vessel	—	—	—	—	—	—			0			0			0			0
Other Vessel	—	—	—	—	—	—	***	***	***			0			0			0

Table 9.9: Rockfish: Average purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	***	***	***	***	***	***			0			0
LE Trawl	—	—	—	—	—	—	27⁝	16⁝	4	27⁝	11⁝	4	***	***	***	7⁝	5⁝	3
Non-vessel	—	—	—	—	—	—			0			0			0			0
Other Vessel	—	—	—	—	—	—	***	***	***			0			0			0

Table 9.10: Sablefish: Average purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	28 ⁝	40 ⁝	3	***	***	***	***	***	***			0
LE Trawl	—	—	—	—	—	—	***	***	***	5 ˙	4 ⁝	3	***	***	***	***	***	***
Non-vessel	—	—	—	—	—	—			0			0			0			0
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***			0			0

Table 9.11: Crab: Average purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Non-vessel	—	—	—	—	—	—			0			0			0			0
Vessel	—	—	—	—	—	—	249 ⁝	592 ⁝	4	168 ⁝	507 ⁝	4	175 ⁝	573 ⁝	5	***	***	***

Table 9.12: Other: Average purchase weight (thousands of lbs.) and cost (thousands of $) by source and species group. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012			2013			2014		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—			0			0			0			0
LE Trawl	—	—	—	—	—	—			0	***	***	***	***	***	***	***	***	***
Non-vessel	—	—	—	—	—	—	***	***	***	***	***	***			0			0
Vessel	—	—	—	—	—	—	***	464 :	***	225 :	431 :	3	151 :	417 :	4	***	***	***
Other Vessel	—	—	—	—	—	—			0			0			0			0

10 Depreciation

Depreciation in the following table includes depreciation for all capital investments on buildings, and new and used machinery and equipment during the EDC data collection year for EDC Non-Processors.

Table 10.1: Depreciation. Depreciation taken during the survey year (thousands of $). (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Depreciation	—	—	—	—	$43.5⁝	5	$48.6⁝	4	***	***	***	***

11 Revenue

11.1 Revenue from offloading

The following table shows revenue from offloading only, as there were not enough responses from EDC Non-Processors to report revenue from custom processing and from the sale or lease of quota pounds or quota shares.

Table 11.1: Other revenue. Revenue from offloading (thousands of $). (N = number of EDC Non-Processors with non-zero, non-NA responses).

Revenue Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Offloading	—	—	—	—	$177⁝	4	$160⁝	5	***	***	***	***

11.2 Production activities

The following tables show production and sales for EDC Non-Processors. As these companies do not process fish, all production activities are listed under the product category Unprocessed. Refer to Section 6.2 for more details about production information collected by EDC forms.

11.3 Total value and weight of fish production by product type and species group

Table 11.2: Total production value (thousands of $) and weight (thousands of lbs.) by species group. Groundfish excludes rockfish and sablefish, and product type is unprocessed for all. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012			2013			2014		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Crab	—	—	—	—	—	—	994	2,755	4	671	***	4	874	3,293	5	***	***	***
Groundfish	—	—	—	—	—	—	155	218	7	371	202	5	***	***	***	***	***	***
Rockfish	—	—	—	—	—	—	117	155	7	109	***	6	***	***	***	20	26	3
Sablefish	—	—	—	—	—	—	277	762	6	81	159	6	***	***	***	***	***	***
Other	—	—	—	—	—	—	***	3,159	***	***	2,006	***	607	1,787	5	***	***	***

11.4 Average value and weight of fish production by product type and species

Table 11.3: Mean production value (thousands of $) and weight (thousands of lbs.) by species group. Groundfish excludes rockfish and sablefish, and product type is unprocessed for all. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012			2013			2014		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Crab	—	—	—	—	—	—	249 ⁝	689 ⁝	4	168 ⁝	***	4	175 ⁝	659 ⁝	5	***	***	***
Groundfish	—	—	—	—	—	—	22 ⁝	31 ⁝	7	74 ⁝	40 ⁝	5	***	***	***	***	***	***
Rockfish	—	—	—	—	—	—	17 ⁝	22 ⁝	7	18 ⁝	***	6	***	***	***	7 ⁝	9 ⁝	3
Sablefish	—	—	—	—	—	—	46 ⁝	127 ⁝	6	13 ⁝	27 ⁝	6	***	***	***	***	***	***
Other	—	—	—	—	—	—	***	632 ⁝	***	***	501 ⁝	***	121 ⁝	357 ⁝	5	***	***	***

First Receiver and Shorebased Processor Data Analysis

Although the data summaries above provide important information about those entities with first receiver site licenses, in order to analyze the effect of the program on first receivers and shorebased processors, additional analysis is necessary. The following sections calculate species group level costs and subsequently, net revenue. The final section presents these measures as rates in order to better understand how changes observed are related to changes in TAC and processing effort.

EDC Processors

12 Net Revenue and Economic Profit

Net returns from operating a first receiver and shorebased processor are presented in this section. The level of net returns not only indicates whether an operation is a viable ongoing business, but also the size of net benefit that is created from society's perspective. Two different measures of net returns are examined. They differ in the types of costs that are taken into account, and therefore, their interpretation and use. The first is a monetary, financial measure that attempts to track a first receiver or shorebased processor's net cash flow, which we call *net revenue*. It is calculated as revenue minus monetary costs. The only costs that are included are those that are actually paid or associated with a financial transaction. The second measure attempts to track the broader economic performance of a business and includes all costs regardless of whether there is a cash or financial transaction. Costs are measured by their true resource costs, which may or may not be equal to monetary outlays. This measure is called *economic profit*.[1]

One difference between net revenue and economic profit is the treatment of facility capital costs. Net revenue only includes costs that are actually paid, which includes items such as facility repair, maintenance, and upgrades. Economic profit would also include the opportunity cost of owning the facility, a capital asset. By owning a facility, the owner foregoes other investment opportunities that would provide a rate of return. This is called the opportunity cost of capital,[2] and is typically approximated by the market rate of return associated with businesses of comparable risk, multiplied by the market value of the facility.

Both net revenue and economic profit are useful measures for fishery management. Net revenue attempts to measure the annual financial well-being of receiving/processing operations. It can be used to determine if there is a monetary gain or loss, or how changes in fishery management may affect the level of monetary gain or loss. Economic profit is a better indicator of the long-term viability of fishery operations since it includes all costs, and values the costs at their opportunity cost. It can be used to

[1] Whitmarsh D., James C., Pickering H., Neiland A. 2000. The profitability of marine commercial fisheries: a review of economic information needs with particular reference to the UK. Marine Policy, Vol. 24(3), pp. 257-263.

[2] See Boardman, Anthony, David Greenberg, and Aidan Vining. Cost-Benefit Analysis: Concepts and Practice, Prentice Hall, NJ. 2000. pp. 31-32.

estimate whether there are incentives or disincentives to invest in capital, or enter and leave the fishery. It is also a better measure of the net benefit of the fishery to the nation.

Calculations of net revenue are included in this report. The cost categories used in net revenue, based on those reported in the EDC forms, are discussed below. Currently, calculations of economic profit are beyond the scope of the report. Economic profit relies on opportunity costs, which may be different from some of the costs reported on the EDC forms, so additional methods and analyses are required. The EDC Program economists will continue to work on developing measures of economic profit so that it may be included in future reports.

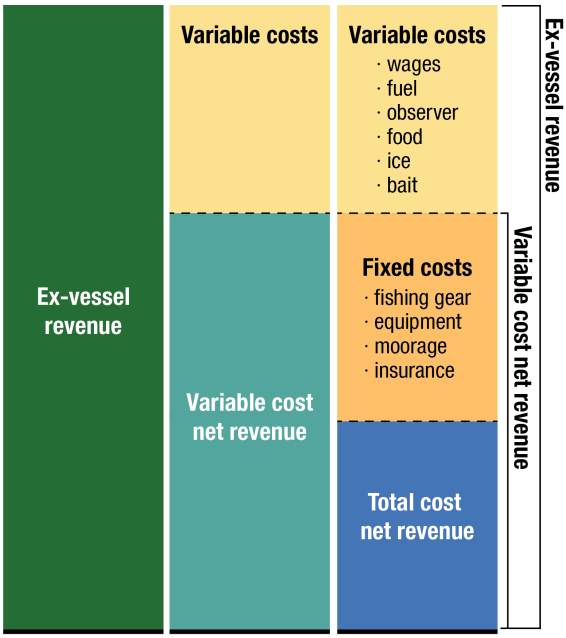


Figure 23: Composition and derivation of variable and total cost net revenue used in the EDC Program analysis of revenue, costs, and economic performance.

12.1 Net revenue

Net revenue is calculated two ways: using only variable costs, and using variable costs plus fixed costs (total costs).[3] The first calculation is called *variable cost net revenue*, while the second is called *total cost net revenue* (Figure 23). Variable cost net revenue is useful to examine changes in fishery operations that are not so great as to affect fixed costs. For example, the cost of processing an additional metric ton of fish is better represented by only considering variable costs. Total cost net revenue is usually a better summary measure of financial gain or loss for an entire year, season, or fishery.

There are several caveats associated with the net revenue calculations in this report. As noted in Section 4, there are a variety of costs associated with running a facility that are not requested by the EDC form because it is difficult to determine the share of the cost associated with the facility. These costs include items that can be used for activities other than processing fish, or are too difficult to allocate to a particular facility in a multi-facility company. These expenses include office space, vehicles and transport trucks, storage of equipment, and professional fees. In general, the EDC forms aim to only capture costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment outside of the facility. Therefore, the EDC calculated

[3] See Section 4 for a more complete discussion of variable and fixed costs used in this report.

net revenue is an overestimate of the true net revenue. The difference is likely much greater for total cost net revenue than variable cost net revenue since most of the excluded costs are fixed costs.

Another caveat is that the EDC forms do not collect information about income taxes or financing costs. This has several implications. The first is that these costs are not included in the net revenue calculations. Therefore, net revenue is greater than it would be otherwise. The second is that in lieu of financing information (principal and interest payments), EDC total cost net revenue uses the total costs associated with facility and equipment purchases, repair, maintenance and improvements. For example, if a processing machine is purchased, the total cost of the machine is used, even though the actual cash outlay, if it were financed, would only be the principal and interest payments made that year. It is likely that many larger capital costs, and perhaps some operating costs, are financed. This would mean that the actual cash outlays in a particular year for those items would be less than what is used in the EDC net revenue calculation. Over time, this may balance out to some degree because previously financed or purchased capital and equipment are also not included, except for the year in which they are purchased.[4] Moreover, total cost net revenue is expected to be representative of actual total cost net revenue only when averaged over many years and across facilities because relatively large capital costs occur periodically.

12.2 Net revenue for all West Coast operations

Average net revenue is calculated for all companies that reported processing activity of groundfish in 2009 and 2010 and all companies that reported processing activity of any kind for 2011 onward (Table 12.1). Revenue does not include earnings related to lease and sale of quota. The variable and fixed costs do not include costs related to acquiring quota shares or quota pounds.

$$\text{Variable cost net revenue} = \text{Revenue} - \text{Variable costs}$$

$$\text{Total cost net revenue} = \text{Revenue} - (\text{Variable costs} + \text{Fixed costs})$$

[4] At best it is just a partial balancing out because the interest payments are not accounted for in the EDC data.

Table 12.1: Average revenue, costs, and net revenue. Revenue, variable costs, fixed costs, variable cost net revenue, and total cost net revenue for all West Coast operations (millions of $). (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Revenue	$13.6	19	$13.5	21	$16.6	24	$18.0	24	$20.6	23	$19.7	23
(Variable costs)	$10.5	19	$11.4	21	$13.6	24	$14.7	24	$17.3	23	$16.9	23
Variable cost net revenue	**$3.1**	**19**	**$2.1**	**21**	**$3.0**	**24**	**$3.2**	**24**	**$3.3**	**23**	**$2.7**	**23**
(Fixed costs)	$1.8	19	$1.8	21	$1.0	24	$0.8	24	$0.9	23	$1.1	23
Total cost net revenue	**$1.3**	**19**	**$0.3**	**21**	**$2.1**	**24**	**$2.5**	**24**	**$2.5**	**23**	**$1.6**	**23**

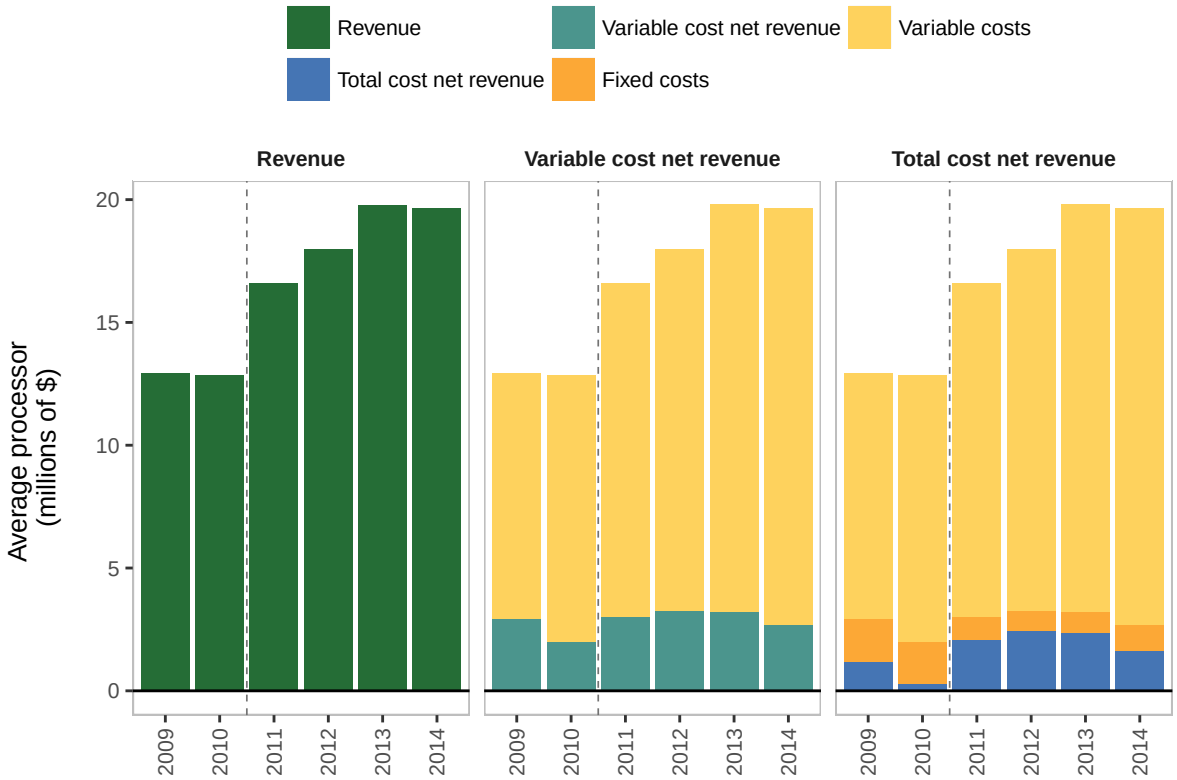


Figure 24: EDC Processor average total reported revenue (left), average variable cost net revenue (revenue minus variable costs) (middle), and average total cost net revenue (revenue minus variable costs and fixed costs) (right) for all West Coast operations (millions of $). Dashed line represents the beginning of the catch share program.

12.3 Total cost net revenue rates for all West Coast operations

The total cost net revenue calculated above in Section 12.2 are provided as rates in the following table to provide the total cost net revenue per pound of fish purchased and per pound of fish product produced. The total weights used in these calculations exclude custom processing activities (see Sections 4.3 and 6.2). Additionally, the same rates are calculated for variable cost net revenue and the components that are used to calculated the two net revenue measures (revenue, variable costs, and fixed costs).

Table 12.2: Revenue, costs, and total and variable cost net revenue by pounds produced and pounds of fish purchased. (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Revenue per production pound	$2.13	19	$2.21	21	$3.95	24	$3.58	24	$4.05	23	$4.34	23
Revenue per purchase pound	$1.57	19	$1.60	21	$1.98	24	$1.89	24	$1.97	23	$2.39	23
Variable cost per production pound	$1.77	19	$1.99	21	$3.13	24	$3.03	24	$3.54	23	$3.77	23
Variable cost per purchase pound	$1.33	19	$1.42	21	$1.77	24	$1.72	24	$1.83	23	$2.23	23
Variable cost net revenue per production pound	$0.36	19	$0.23	21	$0.82	24	$0.55	24	$0.51	23	$0.57	23
Variable cost net revenue per purchase pound	$0.24	19	$0.18	21	$0.20	24	$0.17	24	$0.14	23	$0.16	23
Fixed cost per production pound	$0.22	19	$0.16	21	$0.22	24	$0.18	24	$0.18	23	$0.22	23
Fixed cost per purchase pound	$0.18	19	$0.11	21	$0.10	24	$0.09	24	$0.08	23	$0.11	23
Total cost net revenue per production pound	$0.14	19	$0.07	21	$0.60	24	$0.37	24	$0.33	23	$0.35	23
Total cost net revenue per purchase pound	$0.06	19	$0.07	21	$0.10	24	$0.08	24	$0.06	23	$0.05	23

12.4 Net revenue by species group

Net revenue measures are also broken out by species group.

Cost Disaggregation

In order to conduct economic analyses of specific fisheries, it is important to have costs broken out by fishery. However, processors participating in multiple fisheries incur costs that are aggregated across fisheries. These are called joint costs in the economics and accounting literature. They may include fixed costs (e.g., new processing equipment), or variable costs (e.g., ice). The former are joined by the nature of the costs, while the latter are joined due to observational limitations. It is difficult to assign fixed costs to a particular fishery because the level of the cost does not vary with processor participation (at least over the short term). Some variable costs can be tracked by fishery, but would be costly to do so. For example, although a processor could theoretically set up a system to track expenditures on supplies by fishery or species, doing so may be prohibitively costly.

We allocate costs using the "mixed" method, a combination of cost disaggregation by input pounds, output pounds, and value-added (value of fish sales less the cost of purchasing that fish) by cost category. See Appendix A for details. Some of the information on the EDC form for shorebased processors is collected at the species level (e.g. fish production information), not the fishery level like the catcher vessels. Therefore, we allocate costs to species groups rather than fisheries. The species groups considered in this analysis are 1) Shoreside Pacific whiting; 2) Non-whiting groundfish; and 3) Other.

Table 12.3: Pacific whiting production: Average revenue, costs, and net revenue (thousands of $). (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Revenue	$3,892	12	$2,760	12	$7,928	9	$6,835	8	$9,809	8	$9,002	8
(Variable costs)	$2,553	12	$2,022	12	$6,073	9	$5,255	8	$8,002	8	$7,425	8
Variable cost net revenue	**$1,338**	**12**	**$738**	**12**	**$1,855**	**9**	**$1,581**	**8**	**$1,807**	**8**	**$1,576**	**8**
(Fixed costs)	$1,882	12	$1,553	12	$989	9	$519	8	$713	8	$910	8
Total cost net revenue	**-$544**	**12**	**-$815**	**12**	**$867**	**9**	**$1,062**	**8**	**$1,095**	**8**	**$666**	**8**

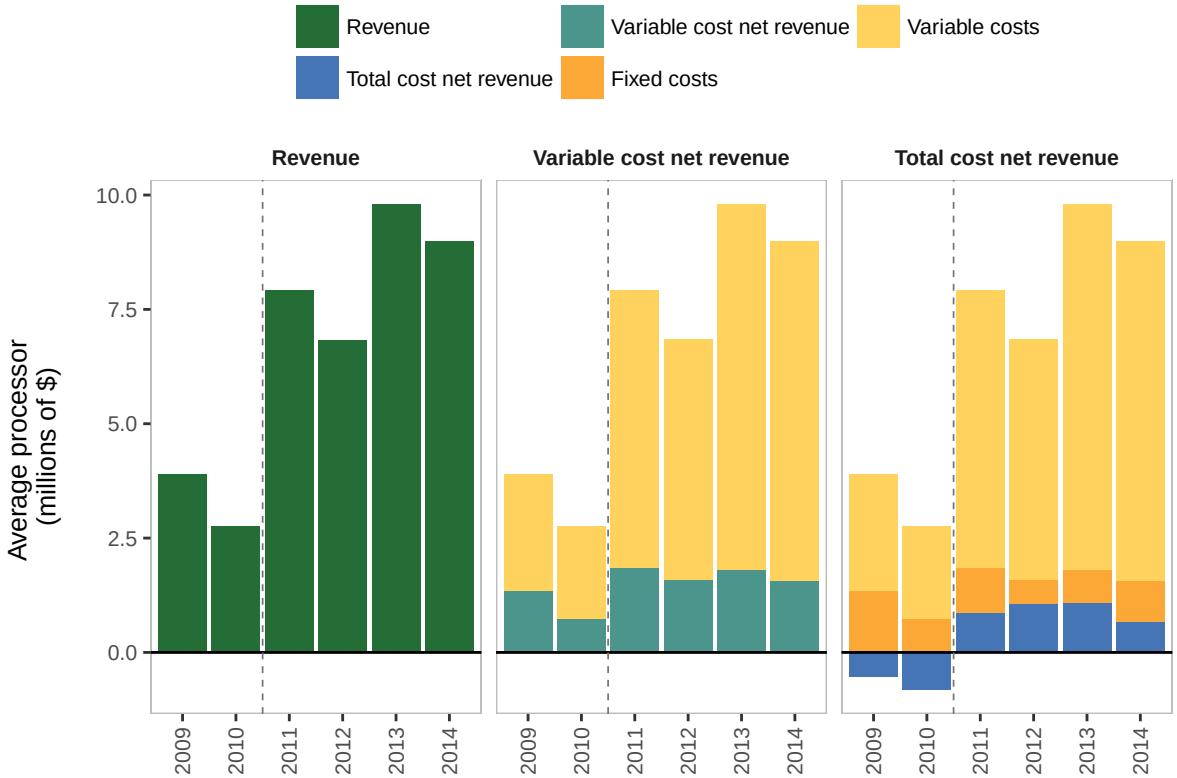


Figure 25: EDC Processor average total reported revenue (left), average variable cost net revenue (revenue minus variable costs) (middle), and average total cost net revenue (revenue minus variable costs and fixed costs) (right) for Pacific whiting operations (millions of $). Dashed line represents the beginning of the catch share program.

Table 12.4: Non-whiting groundfish production: Average revenue, costs, and net revenue (thousands of $). (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Revenue	$4,149	17	$3,657	19	$3,456	21	$3,702	20	$3,367	21	$3,257	21
(Variable costs)	$3,622	17	$3,122	19	$2,943	21	$3,157	20	$2,907	21	$2,847	21
Variable cost net revenue	**$527**	**17**	**$534**	**19**	**$514**	**21**	**$544**	**20**	**$460**	**21**	**$410**	**21**
(Fixed costs)	$111	17	$196	19	$114	20	$142	19	$127	20	$161	19
Total cost net revenue	**$416**	**17**	**$338**	**19**	**$405**	**21**	**$409**	**20**	**$339**	**21**	**$264**	**21**

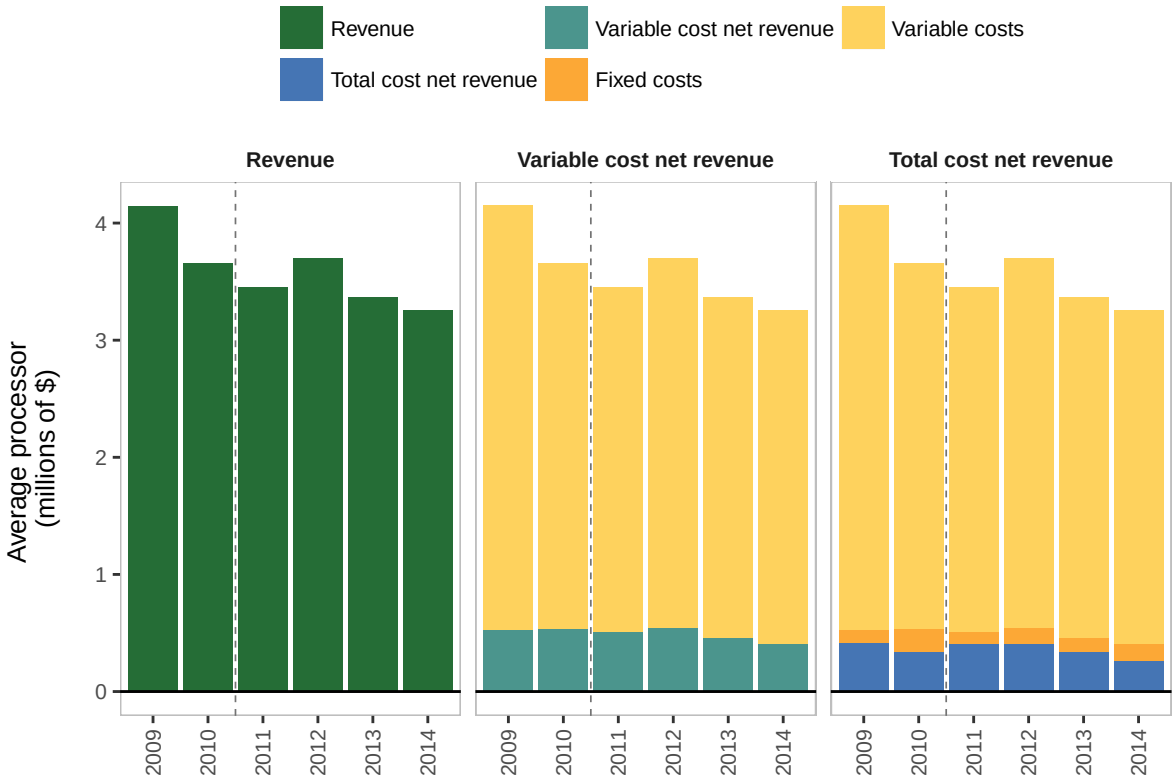


Figure 26: EDC Processor average total reported revenue (left), average variable cost net revenue (revenue minus variable costs) (middle), and average total cost net revenue (revenue minus variable costs and fixed costs) (right) for Non-whiting groundfish operations (millions of $). Dashed line represents the beginning of the catch share program.

Table 12.5: Other species production: Average revenue, costs, and net revenue (thousands of $). (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Revenue	$7,453	19	$8,574	21	$10,595	24	$12,600	24	$14,159	23	$13,553	23
(Variable costs)	$5,657	19	$7,408	21	$8,716	24	$10,335	24	$11,703	23	$11,764	23
Variable cost net revenue	**$1,796**	**19**	**$1,166**	**21**	**$1,879**	**24**	**$2,265**	**24**	**$2,456**	**23**	**$1,789**	**23**
(Fixed costs)	$557	19	$702	21	$525	23	$490	24	$558	21	$673	22
Total cost net revenue	**$1,239**	**19**	**$464**	**21**	**$1,376**	**24**	**$1,775**	**24**	**$1,946**	**23**	**$1,145**	**23**

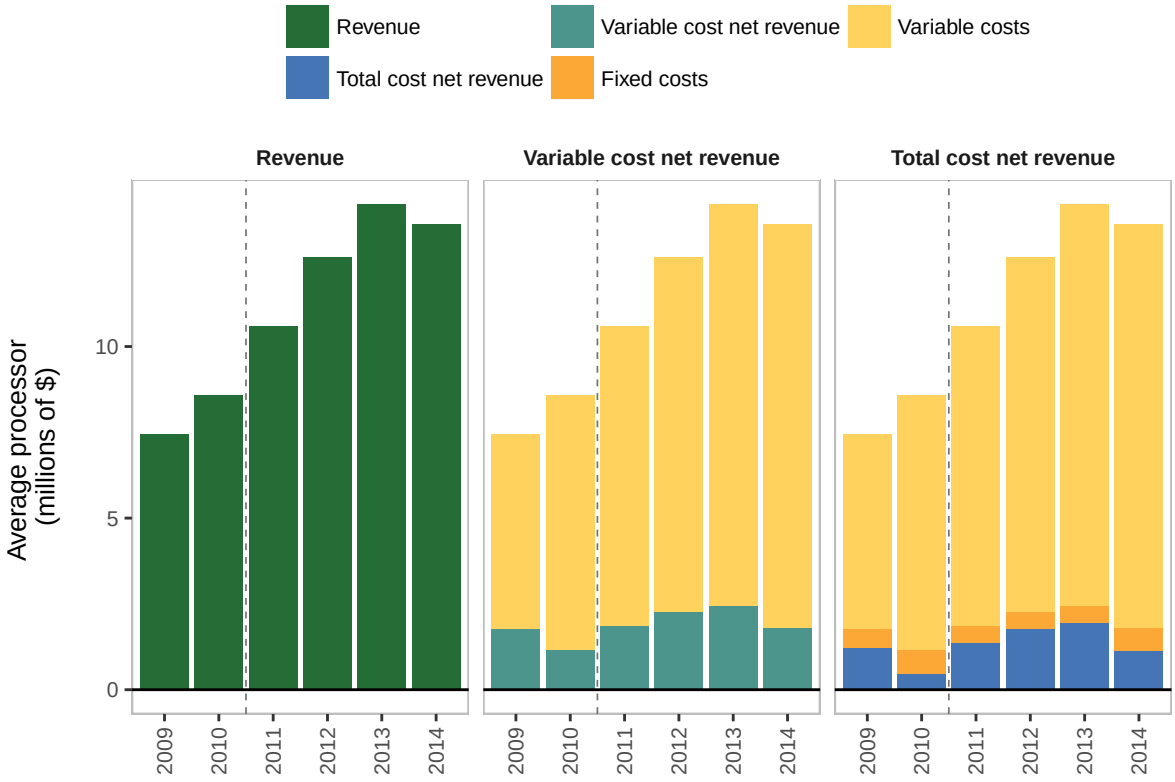


Figure 27: EDC Processor average total reported revenue (left), average variable cost net revenue (revenue minus variable costs) (middle), and average total cost net revenue (revenue minus variable costs and fixed costs) (right) for Other operations (millions of $). Dashed line represents the beginning of the catch share program.

13 Cost Per Pound of Fish Purchases

13.1 Mean fish purchase cost per pound by source

The industry-wide average cost per pound of fish inputs by species e and source of fish s is

$$\frac{\sum_{n=1}^{N} C_{n,e,s}}{\sum_{n=1}^{N} WT_{n,e,s}^{fishinputs}} \quad \forall e, s$$

where C is the cost of fish inputs, $WT^{fishinputs}$ is the weight of fish inputs, and N is the total number of EDC Processors with non-zero, non-NA responses. The mean cost per pound of fish by species and source of fish is calculated for each survey year.

Table 13.1: Industry-wide average fish cost per pound: whiting, dover sole, thornyheads, sablefish.

Species: Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Dover sole: Fixed Gear	$0.40˙	6	$0.25˙	4	—	—	—	—	—	—	—	—
Dover sole: LE Fixed Gear	—	—	—	—	***	***	$0.30˙	7	$0.38˙	7	$0.47˙	7
Dover sole: LE Trawl	$0.35˙	14	$0.32˙	13	$0.43˙	13	$0.44˙	13	$0.46˙	14	$0.48˙	13
Dover sole: Non-vessel	—	—	—	—	$0.64˙	4	$0.46˙	6	$0.56˙	6	$0.55˙	7
Dover sole: Other	$0.37˙	4	$0.40˙	4	—	—	—	—	—	—	—	—
Dover sole: Other Vessel	—	—	—	—	$0.46˙	4	$0.40˙	6	$0.60˙	4	$0.35˙	3
Pacific whiting: Fixed Gear		0		0	—	—	—	—	—	—	—	—
Pacific whiting: LE Fixed Gear	—	—	—	—		0		0		0		0
Pacific whiting: LE Trawl	$0.08˙	12	$0.08˙	12	$0.11˙	10	$0.14˙	9	$0.13˙	10	$0.12˙	11
Pacific whiting: Non-vessel	—	—	—	—	***	***	$0.17˙	3	***	***	***	***
Pacific whiting: Other	$0.20˙	4	$0.08˙	5	—	—	—	—	—	—	—	—
Pacific whiting: Other Vessel	—	—	—	—	***	***	***	***	***	***	***	***
Sablefish: Fixed Gear	$3.04˙	10	$3.18˙	12	—	—	—	—	—	—	—	—
Sablefish: LE Fixed Gear	—	—	—	—	$3.81˙	12	$3.23˙	11	$2.69˙	12	$3.31˙	12
Sablefish: LE Trawl	$2.09˙	15	$2.19˙	16	$2.98˙	15	$2.38˙	17	$2.10˙	16	$2.61˙	16
Sablefish: Non-vessel	—	—	—	—	$1.63˙	4	$3.11˙	9	$2.91˙	6	$3.82˙	8
Sablefish: Other	$2.40˙	4	$2.11˙	5	—	—	—	—	—	—	—	—
Sablefish: Other Vessel	—	—	—	—	$5.29˙	6	$4.13˙	9	$3.24˙	9	$3.95˙	8
Thornyheads: Fixed Gear	$0.78˙	6	$1.03˙	9	—	—	—	—	—	—	—	—
Thornyheads: LE Fixed Gear	—	—	—	—	$1.04˙	8	$1.70˙	10	$2.55˙	8	$1.63˙	9
Thornyheads: LE Trawl	$0.51˙	13	$0.54˙	13	$0.62˙	15	$0.59˙	15	$0.65˙	17	$0.67˙	14
Thornyheads: Non-vessel	—	—	—	—	***	***	$0.55˙	3	$0.54˙	4	$0.65˙	5
Thornyheads: Other	***	***		0	—	—	—	—	—	—	—	—
Thornyheads: Other Vessel	—	—	—	—	$0.86˙	4	$0.79˙	7	$2.96˙	5	$1.18˙	6

Table 13.2: Industry-wide average fish cost per pound: other groundfish.

Species: Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Arrowtooth flounder: LE Fixed Gear	—	—	—	—	$0.13˙	4	$0.14˙	5	$0.14˙	5	$0.14˙	5
Arrowtooth flounder: LE Trawl	—	—	—	—	$0.10˙	11	$0.13˙	13	$0.11˙	11	$0.12˙	11
Arrowtooth flounder: Non-vessel	—	—	—	—	$0.49˙	4	$0.20˙	4	$0.31˙	5	$0.13˙	3
Arrowtooth flounder: Other Vessel	—	—	—	—	$0.10˙	3	$0.11˙	5	$0.07˙	6	$0.07˙	3
Lingcod: Fixed Gear	$0.82˙	7	$0.82˙	6	—	—	—	—	—	—	—	—
Lingcod: LE Fixed Gear	—	—	—	—	$0.89˙	6	$0.79˙	6	$1.54˙	10	$1.94˙	8
Lingcod: LE Trawl	$0.65˙	15	$0.69˙	14	$0.78˙	17	$0.75˙	17	$0.75˙	17	$0.79˙	17
Lingcod: Non-vessel	—	—	—	—	$0.99˙	7	$0.92˙	6	$0.99˙	7	$1.57˙	7
Lingcod: Other	$1.27˙	3	$1.17˙	5	—	—	—	—	—	—	—	—
Lingcod: Other Vessel	—	—	—	—	$1.07˙	4	$0.85˙	7	$1.51˙	8	$2.76˙	7
Rockfish: Fixed Gear	$0.64˙	6	$0.81˙	9	—	—	—	—	—	—	—	—
Rockfish: LE Fixed Gear	—	—	—	—	$0.98˙	8	$1.07˙	10	$1.04˙	9	$1.55˙	10
Rockfish: LE Trawl	$0.69˙	18	$0.52˙	15	$0.54˙	18	$0.56˙	17	$0.55˙	19	$0.53˙	18
Rockfish: Non-vessel	—	—	—	—	$0.90˙	7	$1.16˙	6	$0.72˙	7	$0.70˙	9
Rockfish: Other	$0.97˙	5	$0.72˙	5	—	—	—	—	—	—	—	—
Rockfish: Other Vessel	—	—	—	—	$1.07˙	5	$0.64˙	8	$2.11˙	7	$3.53˙	8
Sanddab: LE Fixed Gear	—	—	—	—		0		0		0		0
Sanddab: LE Trawl	—	—	—	—	$0.58˙	7	$0.57˙	8	$0.56˙	9	$0.56˙	10
Sanddab: Non-vessel	—	—	—	—	$2.50˙	4	$0.79˙	5	$1.08˙	7	$0.99˙	5
Sanddab: Other Vessel	—	—	—	—	***	***	***	***		0	***	***

Table 13.3: Industry-wide average fish cost per pound: other groundfish (cont.).

Species: Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
English sole: Fixed Gear	***	***	***	***	—	—	—	—	—	—	—	—
English sole: LE Fixed Gear	—	—	—	—		0		0		0		0
English sole: LE Trawl	$0.31˙	11	$0.32˙	11	$0.47˙	9	$0.36˙	13	$0.35˙	13	$0.38˙	13
English sole: Non-vessel	—	—	—	—	$0.38˙	4	$0.46˙	6	$0.36˙	7	$0.48˙	5
English sole: Other	$0.42˙	3	$0.34˙	3	—	—	—	—	—	—	—	—
English sole: Other Vessel	—	—	—	—	***	***	$0.37˙	3	***	***		0
Petrale sole: Fixed Gear	$1.16˙	4	$1.54˙	5	—	—	—	—	—	—	—	—
Petrale sole: LE Fixed Gear	—	—	—	—	***	***	$1.92˙	5	$1.22˙	5	$0.94˙	5
Petrale sole: LE Trawl	$0.80˙	11	$1.15˙	13	$1.44˙	11	$1.52˙	12	$1.32˙	16	$1.16˙	13
Petrale sole: Non-vessel	—	—	—	—	$1.79˙	5	$1.58˙	5	$1.37˙	6	$1.28˙	7
Petrale sole: Other	$1.27˙	4	$1.74˙	3	—	—	—	—	—	—	—	—
Petrale sole: Other Vessel	—	—	—	—	$1.42˙	3	$1.45˙	5	***	***	$0.84˙	3
Rex sole: Fixed Gear	***	***	***	***	—	—	—	—	—	—	—	—
Rex sole: LE Fixed Gear	—	—	—	—		0		0	***	***		0
Rex sole: LE Trawl	$0.34˙	14	$0.33˙	12	$0.37˙	13	$0.48˙	14	$0.40˙	13	$0.40˙	12
Rex sole: Non-vessel	—	—	—	—	$1.76˙	4	$0.43˙	4	$0.44˙	7	$0.42˙	5
Rex sole: Other	$0.62˙	3	$0.95˙	3	—	—	—	—	—	—	—	—
Rex sole: Other Vessel	—	—	—	—	$0.36˙	3	$0.37˙	3	$0.47˙	4		0
Sharks, skates and rays: Fixed Gear	$0.22˙	6	$0.27˙	3	—	—	—	—	—	—	—	—
Sharks, skates and rays: LE Fixed Gear	—	—	—	—	$1.47˙	4	$0.39˙	7	$0.41˙	8	$0.33˙	6
Sharks, skates and rays: LE Trawl	$0.19˙	12	$0.26˙	11	$0.31˙	12	$0.41˙	13	$0.40˙	13	$0.42˙	12
Sharks, skates and rays: Non-vessel	—	—	—	—	$1.33˙	4	$0.46˙	6	$0.57˙	6	$0.71˙	8
Sharks, skates and rays: Other	$0.51˙	3	$0.85˙	3	—	—	—	—	—	—	—	—
Sharks, skates and rays: Other Vessel	—	—	—	—	$0.64˙	6	$0.33˙	6	$0.22˙	6	$0.45˙	6

Table 13.4: Industry-wide average fish cost per pound: non-groundfish.

Species: Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Coastal pelagics: All	$0.11˙	9	$0.11˙	8	—	—	—	—	—	—	—	—
Coastal pelagics: Non-vessel	—	—	—	—	$1.47˙	7	$0.16˙	5	$0.31˙	6	$0.70˙	5
Coastal pelagics: Vessel	—	—	—	—	$0.12˙	11	$0.10˙	9	$0.11˙	8	$0.18˙	7
Crab: All	$2.03˙	15	$2.00˙	18	—	—	—	—	—	—	—	—
Crab: Non-vessel	—	—	—	—	$2.54˙	8	$2.92˙	11	$3.05˙	9	$3.76˙	9
Crab: Vessel	—	—	—	—	$2.41˙	19	$2.97˙	18	$2.62˙	19	$3.32˙	20
Salmon: All	$1.28˙	10	$2.46˙	13	—	—	—	—	—	—	—	—
Salmon: Non-vessel	—	—	—	—	$3.41˙	9	$2.45˙	9	$2.38˙	8	$2.70˙	8
Salmon: Vessel	—	—	—	—	$1.47˙	18	$2.96˙	15	$2.02˙	17	$3.08˙	18
Shrimp: All	$0.37˙	9	$0.37˙	11	—	—	—	—	—	—	—	—
Shrimp: Non-vessel	—	—	—	—	$1.08˙	7	$0.79˙	7	$0.90˙	8	$0.68˙	8
Shrimp: Vessel	—	—	—	—	$0.49˙	9	$0.51˙	11	$0.52˙	11	$0.58˙	11
Tuna: All	$1.05˙	10	$1.23˙	14	—	—	—	—	—	—	—	—
Tuna: Non-vessel	—	—	—	—	$2.41˙	5	$1.82˙	5	$2.85˙	6	$1.98˙	6
Tuna: Vessel	—	—	—	—	$1.99˙	17	$1.55˙	16	$1.63˙	16	$1.24˙	13

Table 13.5: Industry-wide average fish cost per pound: non-groundfish (cont.).

Species: Source	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
California halibut: All	$4.82˙	5	$4.62˙	8	—	—	—	—	—	—	—	—
California halibut: Non-vessel	—	—	—	—	$5.57˙	5	$4.51˙	3	***	***	$5.23˙	3
California halibut: Vessel	—	—	—	—	$4.49˙	7	$4.82˙	6	$4.95˙	8	$5.23˙	8
Other shellfish: All	$2.83˙	4	$2.97˙	4	—	—	—	—	—	—	—	—
Other shellfish: Non-vessel	—	—	—	—	$2.59˙	6	$2.18˙	4	$2.87˙	5	$3.15˙	5
Other shellfish: Vessel	—	—	—	—		0	***	***	***	***	***	***
Other species: All	$0.21˙	14	$0.26˙	14	—	—	—	—	—	—	—	—
Other species: Non-vessel	—	—	—	—	$0.54˙	3	$0.66˙	12	***	***	$0.44˙	7
Other species: Vessel	—	—	—	—	$0.61˙	14	***	***	$0.86˙	10	$0.57˙	11
Pacific halibut: All	$4.67˙	6	$6.96˙	8	—	—	—	—	—	—	—	—
Pacific halibut: Non-vessel	—	—	—	—	$9.39˙	5	$6.13˙	5	$6.63˙	4	$4.75˙	5
Pacific halibut: Vessel	—	—	—	—	$6.25˙	8	$6.25˙	8	$5.98˙	8	$7.25˙	7
Squid: All	$0.96˙	6	$0.75˙	9	—	—	—	—	—	—	—	—
Squid: Non-vessel	—	—	—	—	$1.49˙	5	$0.80˙	3	$0.81˙	3	$0.77˙	7
Squid: Vessel	—	—	—	—	$0.01˙	4	$0.30˙	3	$0.32˙	4	$0.16˙	6
Sturgeon: Non-vessel	—	—	—	—	$2.89˙	5	$3.57˙	5	$3.97˙	3	$3.29˙	3
Sturgeon: Vessel	—	—	—	—	$2.59˙	4	$2.49˙	4	$3.30˙	3	***	***

14 Revenue Per Pound from Fish Products Produced

14.1 Mean production revenue per pound by product type

The industry-wide average revenue per pound of fish output by species e and product type o is

$$\frac{\sum_{n=1}^{N} R_{n,e,o}}{\sum_{n=1}^{N} WT_{n,e,o}^{fishoutputs}} \quad \forall e, o$$

where R is the revenue of fish outputs, $WT^{fishoutputs}$ is the weight of fish outputs, and N is the total number of EDC Processors with non-zero, non-NA responses. The mean revenue per pound of fish by species and source of fish is calculated for each survey year.

Table 14.1: Industry-wide average revenue per pound: whiting, dover sole, thornyheads, sablefish.

Species: Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Dover sole: Fresh	$2.24	12	$2.49	12	$3.33	10	$3.49	12	$3.54	10	$3.61	11
Dover sole: Frozen	$2.15	10	$1.57	11	$2.66	11	$2.51	10	$2.01	10	$3.52	9
Dover sole: Other	***	***	***	***		0	***	***	***	***		0
Dover sole: Unprocessed	$0.65	5	$0.60	6	$0.63	8	$0.20	10	$0.48	6	$0.57	6
Pacific whiting: Fillet	$1.09	3	$1.17	4	$0.65	3	$1.00	3	***	***	$0.98	3
Pacific whiting: Frozen	***	***	$0.33	4	$0.29	6	$0.53	6	$0.25	9	$0.30	6
Pacific whiting: Headed-and-gutted	$0.56	10	$0.56	10	$0.56	9	$0.66	7	$0.50	8	$0.51	8
Pacific whiting: Other	***	***	***	***	***	***	$0.53	4	***	***	$0.06	3
Pacific whiting: Roe		0		0		0		0		0		0
Pacific whiting: Surimi	***	***	***	***	***	***	***	***	***	***	$0.93	3
Pacific whiting: Unprocessed	***	***	$0.11	3	***	***	$0.07	3	$0.12	3	$0.09	3
Sablefish: Fresh	$4.07	11	$5.19	14	$3.33	12	$5.10	13	$3.80	14	$6.37	13
Sablefish: Frozen	$4.91	11	$5.38	13	$7.16	12	$5.56	13	$4.83	14	$5.55	12
Sablefish: Other	***	***	***	***		0	$5.40	4	***	***	***	***
Sablefish: Unprocessed	$2.78	3	$2.87	4	$3.48	9	$2.55	8	$2.36	11	$2.79	11
Thornyheads: Fresh	$1.20	5	$1.16	7	$1.88	3	$1.96	3	$2.09	5	$2.96	7
Thornyheads: Frozen	$2.35	7	$2.22	7	$3.41	8	$3.64	9	$3.03	10	$3.14	9
Thornyheads: Other		0	***	***	***	***	***	***		0		0
Thornyheads: Unprocessed	$1.23	3	$0.98	4	$1.69	10	$1.53	10	$1.36	9	$1.65	7

Table 14.2: Industry-wide average revenue per pound: other groundfish.

Species: Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Arrowtooth flounder: Fresh	—	—	—	—	$1.12˙	8	$1.05˙	9	$1.19˙	9	$1.18˙	8
Arrowtooth flounder: Frozen	—	—	—	—	$0.73˙	7	$0.87˙	9	$0.71˙	9	$1.11˙	9
Arrowtooth flounder: Other	—	—	—	—		0	***	***		0		0
Arrowtooth flounder: Unprocessed	—	—	—	—	$1.52˙	3	$0.28˙	4	$0.20˙	5	***	***
Lingcod: Fresh	$3.76˙	13	$4.14˙	13	$3.98˙	9	$3.91˙	10	$4.18˙	12	$4.70˙	13
Lingcod: Frozen	$5.95˙	5	$2.03˙	5	$3.43˙	6	$3.51˙	6	$2.81˙	7	$2.19˙	7
Lingcod: Other	***	***	***	***	$2.55˙	3	$2.96˙	3	***	***	***	***
Lingcod: Unprocessed	$1.22˙	6	$1.65˙	5	$2.68˙	10	$2.46˙	10	$2.17˙	14	$2.91˙	12
Rockfish: Fresh	$2.70˙	16	$2.66˙	16	$2.82˙	12	$3.15˙	11	$3.21˙	13	$2.94˙	13
Rockfish: Frozen	$1.99˙	8	$1.86˙	8	$1.84˙	9	$1.95˙	10	$1.44˙	10	$1.13˙	11
Rockfish: Other	***	***		0	$1.85˙	3	***	***	***	***	***	***
Rockfish: Unprocessed	$1.16˙	7	$1.06˙	6	$1.47˙	14	$1.24˙	12	$1.65˙	16	$1.49˙	14
Sanddab: Fresh	—	—	—	—	$4.61˙	5	$5.15˙	6	$5.12˙	7	$4.06˙	8
Sanddab: Frozen	—	—	—	—	$3.18˙	8	$4.65˙	7	$4.64˙	7	$4.35˙	6
Sanddab: Other	—	—	—	—	***	***	***	***	***	***	***	***
Sanddab: Unprocessed	—	—	—	—	$1.16˙	6	$1.04˙	7	$1.22˙	10	$1.27˙	8
Sharks, skates and rays: Fresh	$1.14˙	8	$1.65˙	10	$2.70˙	6	$0.64˙	5	$2.72˙	5	$2.12˙	8
Sharks, skates and rays: Frozen	$1.35˙	8	$1.86˙	6	$2.07˙	8	$2.65˙	9	$2.12˙	9	$2.46˙	10
Sharks, skates and rays: Other	***	***		0	***	***		0		0		0
Sharks, skates and rays: Unprocessed	***	***	$0.62˙	4	$0.88˙	9	$0.70˙	8	$0.42˙	9	$0.27˙	8

Table 14.3: Industry-wide average revenue per pound: other groundfish (cont.).

Species: Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
English sole: Fresh	$2.13 ˙	11	$2.24 ˙	11	$3.19 ˙	8	$3.39 ˙	9	$3.21 ˙	9	$3.30 ˙	8
English sole: Frozen	$1.21 ˙	6	$1.08 ˙	4	$2.44 ˙	5	$1.10 ˙	8	$1.52 ˙	9	$1.42 ˙	8
English sole: Other		0		0		0		0		0		0
English sole: Unprocessed	$0.67 ˙	3	$0.81 ˙	5	$0.57 ˙	5	$0.56 ˙	7	$0.86 ˙	8	$0.56 ˙	7
Petrale sole: Fresh	$3.45 ˙	11	$3.97 ˙	14	$5.50 ˙	10	$5.24 ˙	10	$5.28 ˙	12	$4.96 ˙	11
Petrale sole: Frozen	$3.07 ˙	7	$3.00 ˙	8	$4.22 ˙	7	$4.16 ˙	7	$3.62 ˙	10	$3.59 ˙	10
Petrale sole: Other		0		0	***	***		0	***	***	***	***
Petrale sole: Unprocessed	$1.55 ˙	7	$1.90 ˙	6	$2.42 ˙	12	$2.63 ˙	12	$1.86 ˙	13	$1.69 ˙	10
Rex sole: Fresh	$1.63 ˙	11	$2.00 ˙	9	$2.15 ˙	9	$2.48 ˙	8	$2.01 ˙	9	$2.03 ˙	7
Rex sole: Frozen	$1.50 ˙	7	$1.27 ˙	6	$1.63 ˙	7	$1.90 ˙	8	$1.72 ˙	8	$1.46 ˙	7
Rex sole: Other		0	***	***		0	***	***		0	***	***
Rex sole: Unprocessed	$0.70 ˙	6	$0.62 ˙	5	$0.80 ˙	7	$0.74 ˙	7	$0.47 ˙	9	$0.56 ˙	8

Table 14.4: Industry-wide average revenue per pound: non-groundfish.

Species: Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Coastal pelagics: Canned	—	—	—	—	***	***		0		0		0
Coastal pelagics: Fresh	$0.33 ˙	3	$5.28 ˙	3	$0.34 ˙	3	$0.25 ˙	3	***	***	$0.41 ˙	3
Coastal pelagics: Frozen	$0.41 ˙	7	$0.37 ˙	7	$0.33 ˙	11	$0.32 ˙	10	$0.28 ˙	8	$0.62 ˙	7
Coastal pelagics: Other	$0.24 ˙	3	$0.23 ˙	3	***	***		0	***	***		0
Coastal pelagics: Unprocessed	***	***	***	***	$2.57 ˙	4	$0.15 ˙	3	$0.17 ˙	5	$0.50 ˙	4
Crab: Canned	***	***	***	***	$18.39 ˙	3	***	***	***	***	***	***
Crab: Fresh	$5.43 ˙	13	$4.38 ˙	16	$5.67 ˙	15	$6.71 ˙	15	$5.77 ˙	16	$6.72 ˙	14
Crab: Frozen	$5.19 ˙	13	$4.32 ˙	15	$5.73 ˙	17	$6.45 ˙	16	$6.22 ˙	16	$7.56 ˙	14
Crab: Other	$4.26 ˙	3	***	***	***	***	$12.69 ˙	3	$15.87 ˙	3	***	***
Crab: Unprocessed	$2.23 ˙	5	$2.24 ˙	4	$3.69 ˙	8	$3.59 ˙	9	$3.66 ˙	10	$4.45 ˙	13
Shrimp: Canned		0		0	***	***	***	***	***	***	***	***
Shrimp: Fresh	$1.60 ˙	7	$1.58 ˙	7	$3.09 ˙	6	$3.18 ˙	5	$3.41 ˙	3	$3.44 ˙	3
Shrimp: Frozen	$2.78 ˙	7	$2.01 ˙	9	$3.00 ˙	11	$2.97 ˙	12	$2.84 ˙	13	$2.34 ˙	14
Shrimp: Other		0	***	***		0		0		0	***	***
Shrimp: Unprocessed	***	***	***	***	$2.00 ˙	4	$0.62 ˙	3	$1.05 ˙	4	$0.72 ˙	6

Table 14.5: Industry-wide average revenue per pound: non-groundfish (cont.).

Species: Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Salmon: Canned	***	***	***	***	***	***	***	***	***	***	***	***
Salmon: Fresh	$3.50 ˙	7	$4.48 ˙	11	$4.28 ˙	15	$5.34 ˙	10	$5.55 ˙	11	$4.50 ˙	13
Salmon: Frozen	$2.12 ˙	6	$2.87 ˙	9	$2.14 ˙	13	$2.59 ˙	11	$2.49 ˙	14	$3.73 ˙	13
Salmon: Other	***	***	***	***		0		0	***	***	***	***
Salmon: Smoked	***	***	***	***	$9.33 ˙	3	***	***	***	***	***	***
Salmon: Unprocessed	$3.48 ˙	3	$5.24 ˙	4	$4.80 ˙	9	$6.30 ˙	10	$7.14 ˙	10	$6.88 ˙	12
Tuna: Canned	***	***	***	***	***	***	***	***	***	***	***	***
Tuna: Fresh	$3.34 ˙	5	$3.98 ˙	8	$4.69 ˙	5	$2.68 ˙	6	$3.74 ˙	7	$4.78 ˙	8
Tuna: Frozen	$1.39 ˙	9	$1.68 ˙	12	$2.63 ˙	13	$1.83 ˙	12	$2.02 ˙	12	$2.11 ˙	12
Tuna: Other	***	***	***	***		0	***	***	***	***	***	***
Tuna: Unprocessed	***	***	$1.61 ˙	3	$2.19 ˙	10	$1.70 ˙	7	$1.86 ˙	8	$1.05 ˙	8

Table 14.6: Industry-wide average revenue per pound: non-groundfish (cont.).

Species: Product	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
California halibut: Fresh	$10.55˙	3	$8.57˙	6	$8.14˙	6	$8.47˙	3	$11.50˙	4	$12.58˙	5
California halibut: Frozen	***	***	***	***	***	***	***	***		0	***	***
California halibut: Other		0	***	***		0		0		0		0
California halibut: Unprocessed	$5.18˙	4	$5.09˙	3	$5.81˙	6	$5.70˙	5	$5.89˙	6	$6.37˙	6
Other shellfish: Fresh	***	***	***	***	$3.83˙	3	***	***	***	***	***	***
Other shellfish: Frozen	$7.53˙	3	$8.61˙	3	***	***	***	***	***	***	***	***
Other shellfish: Other		0		0		0		0	***	***		0
Other shellfish: Unprocessed	$3.43˙	3	$3.53˙	3	$3.18˙	5	$3.38˙	4	$3.87˙	4	$3.96˙	6
Other species: Other	$0.48˙	10	$0.34˙	10	$0.56˙	12	$0.68˙	11	$0.28˙	15	$0.34˙	12
Pacific halibut: Fresh	$5.62˙	5	$9.52˙	6	$9.72˙	9	$7.29˙	4	$7.93˙	5	$8.81˙	7
Pacific halibut: Frozen	$6.63˙	4	$8.83˙	4	$9.96˙	4	$7.78˙	5	$7.32˙	5	$7.17˙	5
Pacific halibut: Other	***	***	***	***	***	***		0	***	***		0
Pacific halibut: Unprocessed	***	***	***	***	$7.66˙	5	$6.35˙	6	$6.41˙	5	$7.57˙	5
Squid: Fresh	***	***	***	***	***	***		0		0	***	***
Squid: Frozen	$1.68˙	5	$1.05˙	6	$1.85˙	7	$1.06˙	3	$1.69˙	3	$1.01˙	7
Squid: Other		0	***	***		0		0	***	***	***	***
Squid: Unprocessed	***	***		0	$2.88˙	3	$0.30˙	3	$0.32˙	3	$1.52˙	4
Sturgeon: Canned		0		0		0		0		0		0
Sturgeon: Fresh	$4.65˙	4	$4.93˙	4	$5.72˙	6	$6.38˙	5	$6.73˙	5	$7.07˙	3
Sturgeon: Frozen	***	***	$4.25˙	3	***	***	$6.98˙	3	***	***	***	***
Sturgeon: Other	***	***		0		0		0	***	***		0
Sturgeon: Unprocessed		0		0	$5.88˙	4	***	***	***	***	***	***

15 Markup

The industry-wide average markup by species e is

$$\frac{\sum_{n=1}^{N} R_e}{\sum_{n=1}^{N} C_e} \quad \forall e$$

where R is the revenue of fish outputs, C is the cost of fish inputs, N is the total number of EDC Processors with non-zero, and non-NA responses. The average markup by species or species group is calculated for each survey year. The costs of fish include fish received from all sources. The fish purchases can include pre-processed product types. The production value includes production of unprocessed and processed products.

Table 15.1: Industry-wide average markup (total value of production divided by total cost of fish purchases by species). (N = number of EDC Processors with non-zero, non-NA responses).

Species	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Arrowtooth flounder	—	—	—	—	3.46	14	2.65	16	2.75	18	3.31	17
California halibut	1.27	5	1.84	9	1.19	11	1.20	9	1.18	10	1.53	9
Coastal pelagics	2.40	11	2.22	10	2.57	17	2.60	12	2.09	12	3.18	12
Crab	1.98	18	1.46	20	1.45	26	1.45	25	1.42	26	1.34	24
Dover sole	1.99	17	2.24	19	2.03	20	2.18	21	1.87	18	1.96	18
Echinoderms	***	***	***	***	3.84	3	2.88	3	***	***	3.08	4
English sole	2.12	14	1.88	17	2.24	15	2.45	20	2.24	17	1.72	15
Lingcod	2.01	20	2.22	21	2.18	23	2.24	22	2.07	23	2.05	23
Pacific halibut	1.49	7	1.08	10	1.11	14	1.00	11	1.07	13	1.12	13
Pacific herring	—	—	—	—	0.97	6	0.75	5	1.61	6	2.42	9
Pacific whiting	3.66	12	3.64	14	2.93	13	2.77	13	2.56	14	2.76	15
Petrale sole	1.95	14	1.41	20	1.44	19	1.44	18	1.43	22	1.58	20
Rex sole	2.40	17	2.29	17	2.26	19	2.20	19	2.28	18	2.33	16
Rockfish	1.55	21	1.46	21	1.57	29	1.52	25	1.60	24	1.57	23
Sablefish	1.34	18	1.56	21	1.29	26	1.33	27	1.36	24	1.30	24
Salmon	2.10	13	1.28	18	1.38	23	1.47	21	1.40	23	1.38	23
Sanddab	—	—	—	—	2.31	14	2.58	15	2.40	16	2.22	17
Sharks, skates and rays	2.68	20	2.36	20	3.04	22	2.35	22	1.90	22	1.74	22
Shrimp	2.42	10	1.82	12	1.99	13	2.06	15	2.05	14	1.99	15
Squid	1.26	12	1.28	12	1.28	13	1.04	11	1.04	12	1.00	15
Sturgeon	—	—	—	—	1.36	7	1.26	6	1.30	5	1.33	3
Thornyheads	1.76	16	2.04	17	2.45	21	2.58	21	2.08	19	2.12	21
Tuna	1.63	12	1.16	16	1.36	22	1.06	19	1.29	18	1.10	16
Other shellfish	1.30	4	1.32	5	1.45	6	1.71	6	1.33	6	1.29	8
Other species	2.57	17	1.53	17	1.74	20	1.19	17	6.79	17	2.77	17

EDC Non-Processors

16 Net Revenue and Economic Profit

Measures of net revenue earned by EDC Non-Processors are presented in this section. Refer to Section 12 for more details on the different measures of net revenue and several caveats concerning these measures.

16.1 Net revenue for all operations (catch share and non-catch share fish)

Average net revenue is calculated based on information from EDC Non-Processors for 2011 onward.

Revenue includes the total value of production and revenue from custom processing and offloading.

The variable and fixed costs do not include costs related to acquiring quota shares or quota pounds.

$$\text{Variable cost net revenue} = \text{Revenue} - \text{Variable costs}$$

$$\text{Total cost net revenue} = \text{Revenue} - (\text{Variable costs} + \text{Fixed costs})$$

Table 16.1: Revenue, costs, and net revenue. Average revenue, variable costs, fixed costs, variable cost net revenue, and total cost net revenue for all operations of non-processors on the West Coast (thousands of $). (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Revenue	—	—	—	—	$834	10	$665	9	$874	7	$732	5
(Variable costs)	—	—	—	—	$651	10	$637	9	$850	7	$606	5
Variable cost net revenue	**—**	**—**	**—**	**—**	**$183**	**10**	**$28**	**9**	**$29**	**6**	**$126**	**5**
(Fixed costs)	—	—	—	—	$73	7	$114	6	$28	4	$56	3
Total cost net revenue	**—**	**—**	**—**	**—**	**$175**	**7**	**-$92**	**6**	**-$33**	**4**	**$70**	**3**

APPENDICES

Cost Disaggregation

It is important to conduct economic analyses of specific fisheries. Many vessels and processors that participate in the catch share program also participate in other fisheries. In order to perform analysis at the fishery level, costs must be broken out by fishery. However, EDC participants incur several types of costs that are aggregated across all fisheries. These are called "joint" costs in the economics and accounting literature and include fixed costs (e.g., new processing equipment), or variable costs (e.g., labor). The former are joined by the nature of the costs themselves, while the latter are often joined due to observational limitations. It is difficult to assign fixed costs to a particular fishery because the level of the cost does not vary with business activity (at least over the short run). Many variable costs can theoretically be tracked by fishery, but it would be difficult or costly to do so. For example, although an EDC participant could theoretically set up a system to track expenditures on supplies by fishery or species, doing so may be prohibitively costly.

In June 2013, the EDC Program presented research to the PFMC SSC (Agenda Item F.2.b[1]) regarding the selection of a method for cost disaggregation for catcher vessels relative to various criteria.[2] This document presents similar research for the first receiver and shorebased processor sector. Because this sector is quite different in many respects from the catcher vessel sector, there are some differences regarding approaches to cost disaggregation. First, much of the information on the EDC form for shorebased processors is collected at the species level (e.g. fish purchases and production information), not the fishery level like the catcher vessels. Therefore, we allocate costs to species groups rather than fisheries. Second, this means that analysis of catch share species includes all processing of that species, not just fish caught within the catch share program. This applies primarily to sablefish, which are caught in several other fisheries, but also to rockfish and other groundfish species. From 2009-2014, an average of 93% of groundfish pounds received by EDC Processors was caught with a trawl permit, which accounted for 80% of total fish purchase costs. While it would be ideal to isolate costs associated with the production of catch share groundfish only, there is not enough information to do so.

The first receiver and shorebased processor sector includes a wide variety of entities that range from

[1] http://www.pcouncil.org/resources/archives/briefing-books/june-2013-briefing-book/#groundfishJune2013.
[2] http://www.nwfsc.noaa.gov/research/divisions/fram/documents/EDC_Catcher_Vessel_Report_2015.pdf, p. 145.

independent catcher vessel owners who unload and truck their own fish to large multi-facility processing companies with a wide range of product offerings. Some respondents who provide information do not own a physical processing facility and thus do not incur many of the costs on the EDC form. Here we focus only on those companies that process fish.

1 Cost Disaggregation Methods

We allocate aggregated annual costs to three species groups: 1) Shoreside Pacific whiting; 2) Non-whiting groundfish; and 3) Other. Non-whiting groundfish include flatfish (e.g., petrale sole and dover sole), roundfish (e.g., sablefish and lingcod), and rockfish. The third category "other" includes all other species reported on the EDC form.[3]

We analyze four methods of cost disaggregation: 1) disaggregation by input pounds; 2) disaggregation by output pounds; 3) disaggregation by value-added (value of fish sales less the cost of purchasing that fish); and 4) disaggregation by a combination of the other three methods by cost category ("mixed" method). Disaggregation by input pounds compares the weight of fish purchases for a particular species group to all other fish purchases by the company in that year, and applies this ratio to all aggregated cost information on the EDC form. Disaggregation by output pounds compares the weight of fish production for a particular species group to all other fish production by the company in that year, and applies this ratio to all aggregated cost information on the EDC form. Disaggregation by value-added compares the spread between production value and purchase cost for a given species group to overall spread for the company in that year, and applies this ratio to all aggregated cost information on the EDC form.[4] The "mixed" method, which follows the same general framework of cost allocation for the catcher vessel sector, applies the ratio from one of the aforementioned methods to each cost category (e.g. expenses on electricity, expenses on packing materials, etc.).

1.1 Mixed Method

For some cost categories, we utilized economic theory and knowledge gained through discussions with industry to determine which cost disaggregation method to apply to each cost category (Table 9).

For other costs, it was less clear which method was the most appropriate. To assist in determining which disaggregation measure to apply to these cost categories, we employed the following regression analysis to determine which cost disaggregation approach demonstrates the most meaningful correlation with the given cost category.

[3] Other species include coastal pelagics, crab, echinoderms, California halibut, Pacific halibut, herring, salmon, shrimp, squid, sturgeon, tuna, and other shellfish.

[4] We compute value-added at the species level and if value-added is negative, we replace it with zero. This is done at the species level prior to aggregation to the fishery level.

Table A.1: Mixed Method Cost Disaggregation Determination: Economic Theory.

Cost Category	Chosen Method
Capitalized Expenditures on buildings	Value-added
Capitalized expenditures on equipment	Value-added
Rent and lease on buildings and equipment	Value-added
Repair and maintenance	Value-added
Non-production employees	Value-added
Licensing fees	Value-added
Packing materials	Value-added
Processing equipment	Value-added
Production workers	Value-added
Shoreside monitoring	Input lbs
Sewer, waste, byproduct disposal	Input lbs
Offloading	Input lbs

First, we compared the results of the following three regressions for each cost category and chose the method that yielded the lowest residual sum of squares. In the table below, we refer to this approach as Analysis 1. In the following equations i denotes processor, and t denotes year.

$$Cost_{it} = \beta^{InputWeight} * InputLbs_{it} + \epsilon_{it} \tag{A.1}$$

$$Cost_{it} = \beta^{OutputWeight} * OutputLbs_{it} + \epsilon_{it} \tag{A.2}$$

$$Cost_{it} = \beta^{ValueAdded} * ValueAdded_{it} + \epsilon_{it} \tag{A.3}$$

Second, we compared the results of the following three regressions for each cost category and chose the method that yielded the lowest residual sum of squares. Here the disaggregation variables on the right hand side of the equation are broken out by species group. In the table below, we refer to this approach as Analysis 2. In the following equations i denotes processor, t denotes year, and s denotes species group (Pacific whiting, Non-whiting groundfish, or Other).

$$Cost_{it} = \sum_s \beta_s^{InputWeight} * InputLbs_{its} + \epsilon_{it} \tag{A.4}$$

$$Cost_{it} = \sum_s \beta_s^{OutputWeight} * OutputLbs_{its} + \epsilon_{it} \tag{A.5}$$

$$Cost_{it} = \sum_s \beta_s^{ValueAdded} * ValueAdded_{its} + \epsilon_{it} \tag{A.6}$$

The two regression analyses recommended similar measures for disaggregation. In cases of discrepancies (nitrogen gas, non-fish ingredients, and off-site freezing and storage), the EDC Program chose to follow

Analysis 2.

Table A.2: Mixed Method Cost Disaggregation Determination: Regression Analysis.

Cost Category	Analysis 1	Analysis 2	Chosen Method
Cleaning supplies	Value-added	Value-added	Value-added
Electricity	Input lbs	Input lbs	Input lbs
Freight	Value-added	Value-added	Value-added
Insurance	Value-added	Value-added	Value-added
Natural gas	Input lbs	Input lbs	Input lbs
Nitrogen gas	Value-added	Output lbs	Output lbs
Non-fish ingredients (additives)	Input lbs	Value-added	Value-added
Off-site freezing and storage	Input lbs	Value-added	Value-added
Production supplies	Value-added	Value-added	Value-added
Propane	Value-added	Value-added	Value-added
Taxes	Output lbs	Output lbs	Output lbs
Water	Value-added	Value-added	Value-added

Listed below are the variables used to disaggregate each cost category for the "mixed" method. For the average processor, 90% of total costs are allocated using the value-added method, 9% are allocated using input pounds, and 1% are allocated using output pounds.

- Costs were disaggregated using input pounds for the following cost categories:
  - Shoreside monitoring costs
  - Electricity
  - Natural gas
  - Offloading expenses
  - Sewer, waste, and byproduct disposal
- Costs were disaggregated using output pounds for the following cost categories:
  - Nitrogen gas
  - Taxes
- Costs were disaggregated using value-added for the following cost categories:
  - Capitalized expenditures on buildings
  - Capitalized expenditures on new and used machinery and equipment
  - Rental or lease of buildings, job-site trailers, and other structures
  - Total repair and maintenance expenses

- Off-site freezing and storage
- Packing materials
- Processing equipment
- Non-production employees
- Insurance payments
- Freight costs
- Production supplies
- Cleaning and custodial supplies
- Non-fish ingredients (additives)
- Propane gas
- Water
- Licensing fees

While over 99% of processor revenue is generated from fish output (which is broken out by species on the EDC forms), some revenue information is collected for all operations (e.g. offloading and insurance settlements). We disaggregate this small portion of revenue using input pounds.

Costs and revenue from custom processing activities are collected by species group on the EDC form. Therefore, these are applied directly to the relevant species group.

2 Sensitivity Analysis

The cost disaggregation method chosen by the EDC Program to utilize in economic analyses is the "mixed" method. There are several advantages to this method. First, it is reasonable to expect that the appropriate cost disaggregation method will vary across cost categories. Second, the regression analysis behind this method uses existing EDC Program data to help determine which method is likely the most appropriate, by examining which series of data (input pounds, output pounds, or value-added) is most correlated with data for each cost category across companies and years. Finally, this is the same approach used to disaggregate cost data for catcher vessels, which provides consistency across EDC Program sectors.

We conduct a sensitivity analysis to understand the implications of choosing the "mixed" method over the other potential methods. The primary economic indicator employed by the EDC Program to compare across disaggregation methods is net revenue, both variable cost net revenue (VCNR, revenue minus variable costs) and total cost net revenue (TCNR, revenue minus variable costs and fixed costs). Figures 1-3 show company average TCNR across cost disaggregation methods. VCNR, while not explicity shown,

is represented by TCNR plus fixed costs. Tables 1-3 show the mean and standard deviation of VCNR and TCNR generated by each disaggregation method. Each table compares disaggregation methods for one species group.[5] Tables 4 and 5 show the percent differences between the different methods, using the mixed method as the baseline method.

In general, disaggregating by input pounds and output pounds tends to allocate more of the costs of production to Pacific whiting, as it is a high volume fishery. Therefore, the net revenue from processing Pacific whiting is generally highest using the value-added method and lowest using the input pounds method. The opposite is true for the Other species group, which include high-value species like crab and shrimp. The relationship between methods over time is less consistent for production of non-whiting groundfish.

Pacific whiting production also has the largest differences across methods for both variable cost net revenue and total cost net revenue. Pacific whiting is the only species group where some cost disaggregation methods result in negative net revenue. Not surprisingly, differences between disaggregation methods are higher for total cost net revenue than variable cost net revenue, likely due to fixed costs being very large in scale.

It is also important to note the fairly large standard deviations for all measures. Within this sample of processors, there is a broad variety of business sizes and species processed, which can lead to wide distributions for measures of net revenue. Therefore, we also calculate the median VCNR and TCNR, which are lower in magnitude than the averages (Tables 6-8). The input pounds and output pounds methods yield more negative values for VCNR, which also provides evidence in favor of the "mixed" method as we would expect companies to experience positive VCNR.

[5] The number of processors is sometimes lower for the value-added method. If a processor makes zero or negative profits on a species group, this method will attribute no costs to production of that species, even if fish was produced. These situations generally describe fish that is unprocessed that was received as bycatch from vessels or fish that was offloaded for another company. Both cases would likely imply little processing costs on the part of the facility.

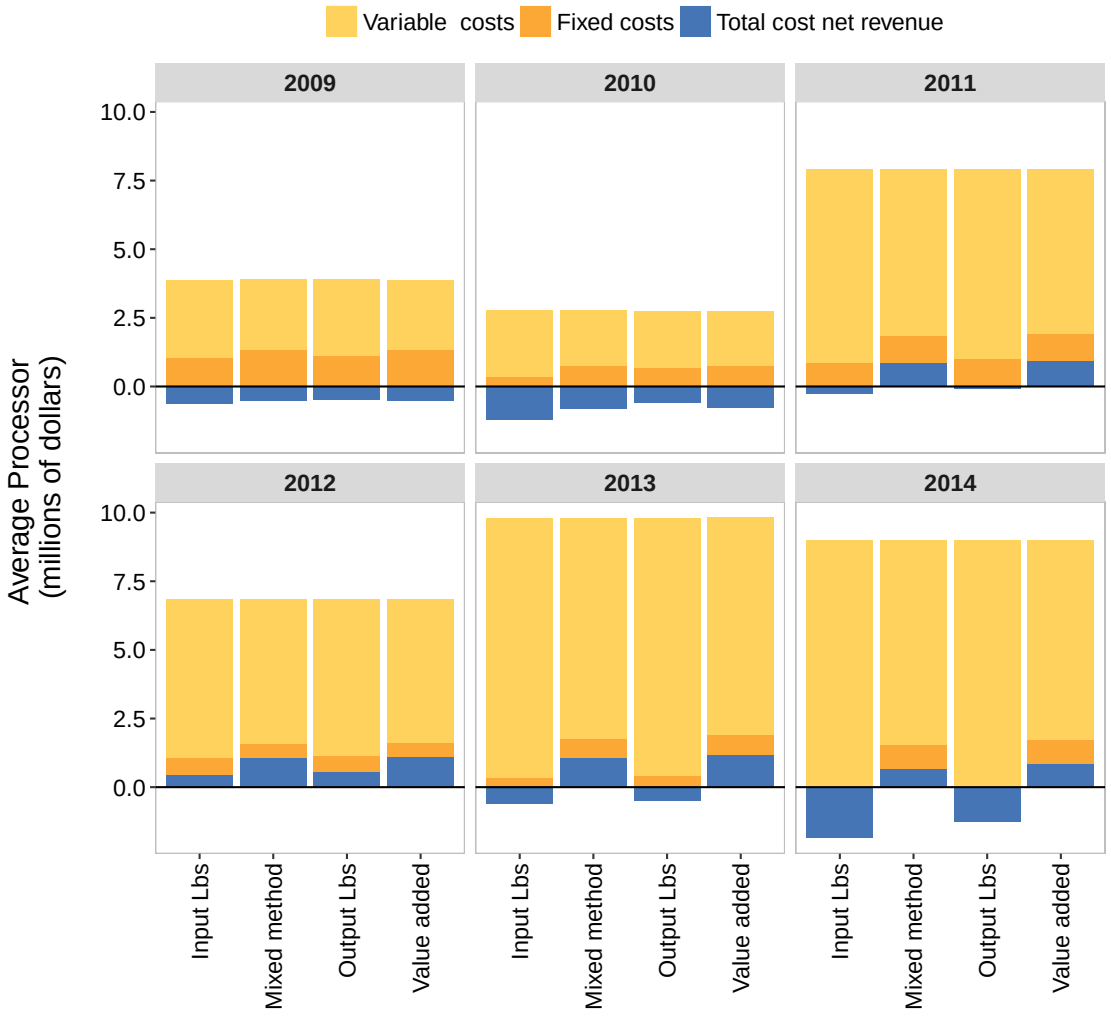


Figure 28: Pacific whiting production: Average total cost net revenue (revenue minus variable costs and fixed costs). N varies across year and metrics, see Table A.1 for N.

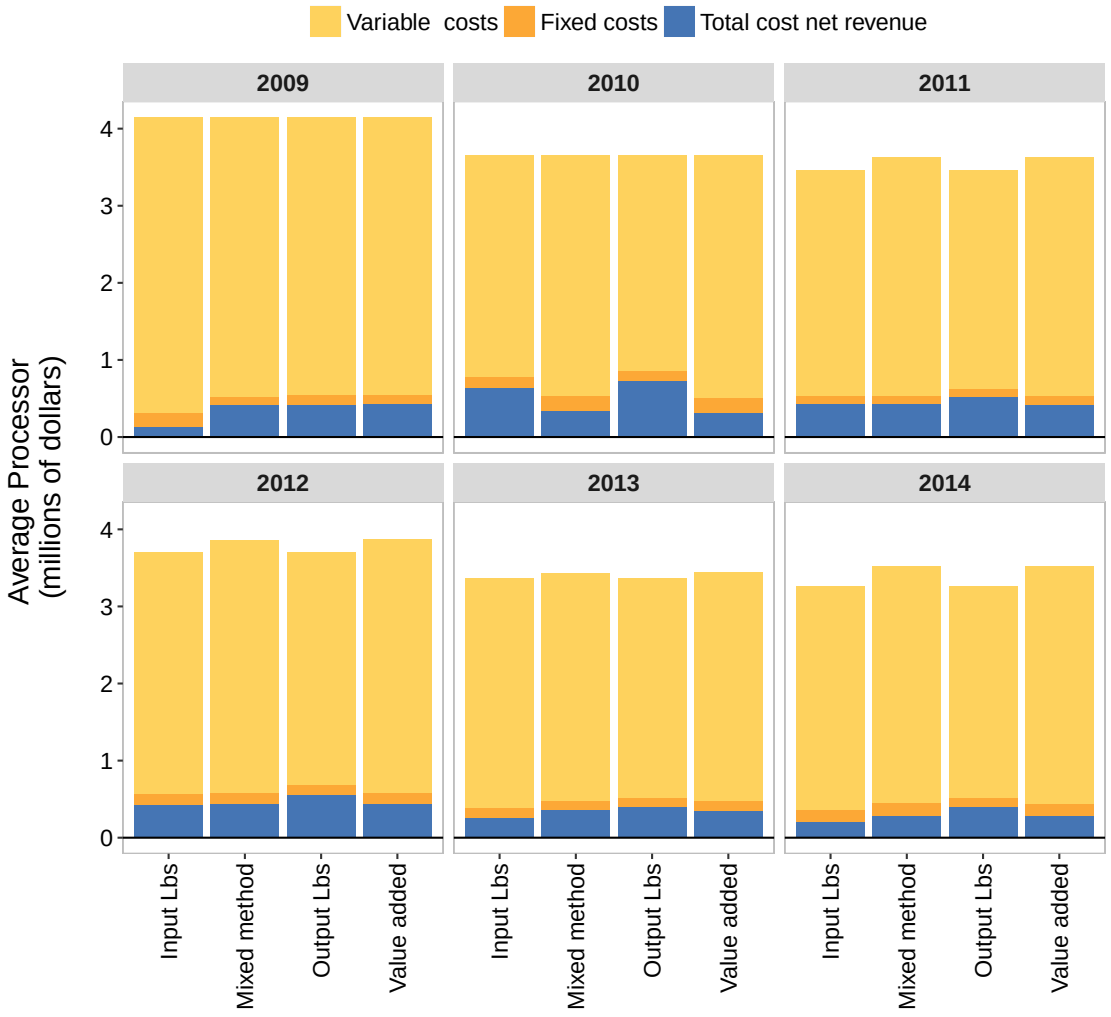


Figure 29: Non-whiting groundfish production: Average total cost net revenue (revenue minus variable costs and fixed costs). N varies across year and metrics, see Table A.2 for N.

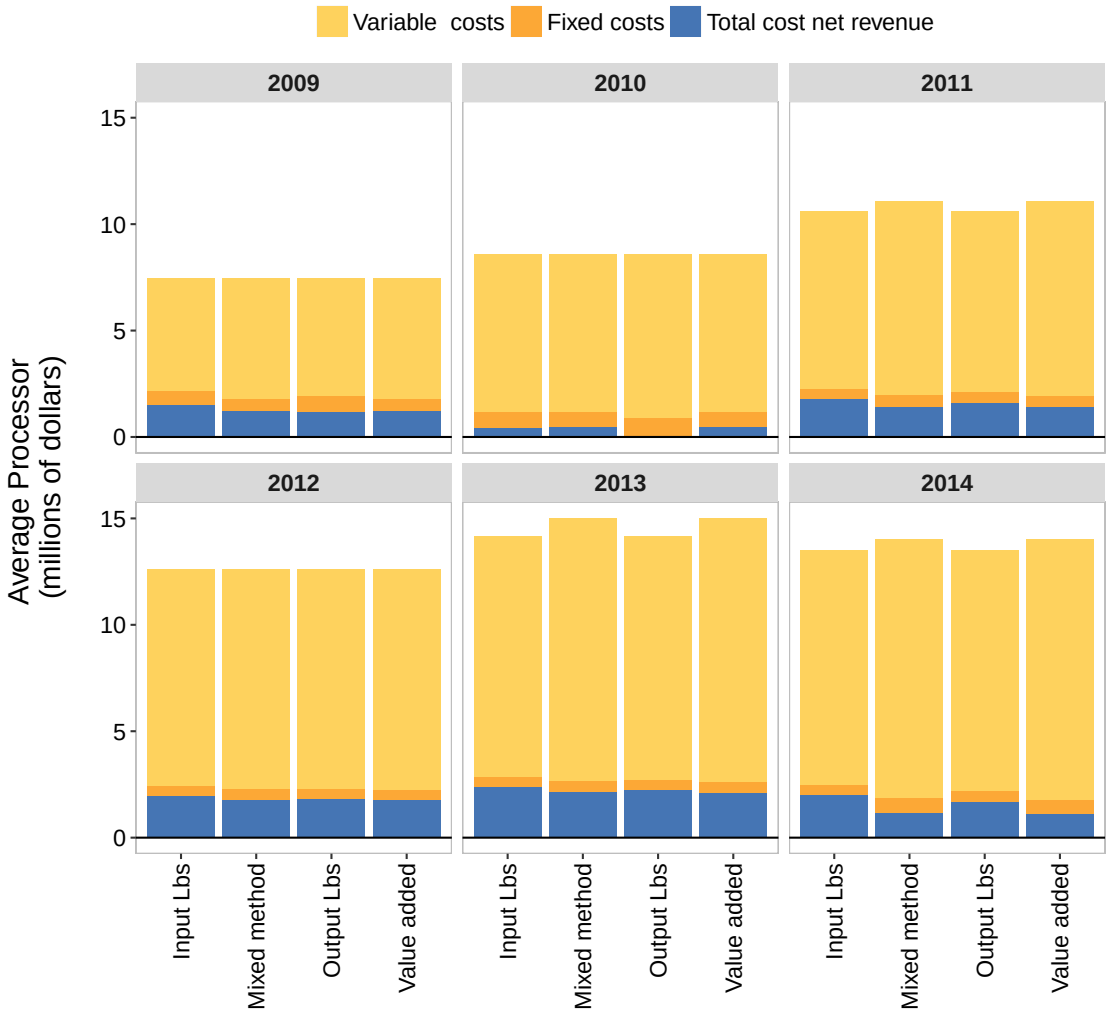


Figure 30: Other species production: Average total cost net revenue (revenue minus variable costs and fixed costs). N varies across year and metrics, see Table A.3 for N.

Table A.1: Sensitivity analysis. Shoreside Pacific Whiting fishery average variable cost net revenue (VCNR) and total cost net revenue (TCNR) by cost disaggregation approach (thousands of $). N = number of EDC Processors with non-zero, non-NA responses. Standard deviations in parentheses (thousands of $).

Metric: Approach	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
VCNR: Input pounds	$1,053	12	$345	12	$863	9	$1,075	8	$359	8	-$442	8
	($4,016)		($1,542)		($2,441)		($1,468)		($1,436)		($3,676)	
VCNR: Output pounds	$1,100	12	$686	12	$1,021	9	$1,151	8	$421	8	$7	8
	($4,075)		($1,609)		($2,515)		($1,724)		($1,370)		($3,361)	
VCNR: Value-added	$1,349	12	$769	12	$1,941	9	$1,619	8	$1,904	8	$1,737	8
	($3,585)		($1,380)		($1,875)		($1,176)		($1,939)		($2,217)	
VCNR: Mixed method	$1,338	12	$738	12	$1,855	9	$1,581	8	$1,768	8	$1,562	8
	($3,642)		($1,396)		($1,901)		($1,189)		($1,867)		($2,332)	
TCNR: Input pounds	-$621	12	-$1,218	12	-$281	9	$447	8	-$587	8	-$1,841	8
	($1,153)		($1,940)		($2,626)		($1,217)		($1,396)		($3,851)	
TCNR: Output pounds	-$492	12	-$607	12	-$87	9	$546	8	-$499	8	-$1,262	8
	($1,151)		($1,347)		($2,682)		($1,557)		($1,410)		($3,490)	
TCNR: Value-added	-$534	12	-$784	12	$953	9	$1,101	8	$1,191	8	$827	8
	($1,850)		($2,617)		($2,397)		($801)		($2,055)		($2,231)	
TCNR: Mixed method	-$544	12	-$815	12	$867	9	$1,062	8	$1,055	8	$651	8
	($1,796)		($2,586)		($2,397)		($813)		($1,973)		($2,319)	

Table A.2: Sensitivity analysis. Non-whiting groundfish fishery average variable cost net revenue (VCNR) and total cost net revenue (TCNR) by cost disaggregation approach (thousands of $). N = number of EDC Processors with non-zero, non-NA responses. Standard deviations in parentheses (thousands of $).

Metric: Approach	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
VCNR: Input pounds	$320	17	$785	19	$527	21	$567	20	$393	21	$361	21
	($1,307)		($1,350)		($980)		($1,175)		($1,362)		($1,021)	
VCNR: Output pounds	$550	17	$864	19	$620	21	$685	20	$518	21	$512	21
	($1,547)		($1,420)		($1,196)		($1,377)		($1,682)		($1,454)	
VCNR: Value-added	$547	17	$507	19	$529	20	$581	19	$477	20	$444	19
	($1,613)		($1,156)		($889)		($921)		($1,134)		($1,073)	
VCNR: Mixed method	$527	17	$534	19	$539	20	$584	19	$482	20	$449	19
	($1,591)		($1,157)		($907)		($942)		($1,170)		($1,072)	
TCNR: Input pounds	$134	17	$641	19	$424	21	$432	20	$261	21	$213	21
	($1,300)		($1,190)		($882)		($1,090)		($1,278)		($865)	
TCNR: Output pounds	$411	17	$722	19	$528	21	$565	20	$402	21	$399	21
	($1,519)		($1,282)		($1,118)		($1,306)		($1,625)		($1,347)	
TCNR: Value-added	$436	17	$311	19	$415	20	$439	19	$350	20	$283	19
	($1,570)		($988)		($771)		($793)		($983)		($932)	
TCNR: Mixed method	$416	17	$338	19	$425	20	$442	19	$355	20	$288	19
	($1,547)		($976)		($788)		($813)		($1,020)		($922)	

Table A.3: Sensitivity analysis. Other fishery average variable cost net revenue (VCNR) and total cost net revenue (TCNR) by cost disaggregation approach (thousands of $). N = number of EDC Processors with non-zero, non-NA responses. Standard deviations in parentheses (thousands of $).

Metrics: Approach	2009		2010		2011		2012		2013		2014	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
VCNR: Input pounds	$2,161	19	$1,163	21	$2,239	24	$2,414	24	$2,850	23	$2,508	23
	($3,094)		($3,298)		($2,742)		($2,382)		($4,661)		($4,287)	
VCNR: Output pounds	$1,926	19	$896	21	$2,099	24	$2,291	24	$2,714	23	$2,214	23
	($2,787)		($3,063)		($2,564)		($2,351)		($4,508)		($3,608)	
VCNR: Value-added	$1,771	19	$1,172	21	$1,935	23	$2,253	24	$2,646	21	$1,792	22
	($2,611)		($2,694)		($2,180)		($2,204)		($3,658)		($3,420)	
VCNR: Mixed method	$1,796	19	$1,165	21	$1,960	23	$2,265	24	$2,698	21	$1,854	22
	($2,639)		($2,744)		($2,211)		($2,216)		($3,728)		($3,436)	
TCNR: Input pounds	$1,539	19	$419	21	$1,790	24	$1,961	24	$2,417	23	$2,036	23
	($3,419)		($3,732)		($2,628)		($2,067)		($4,376)		($3,848)	
TCNR: Output pounds	$1,210	19	-$2	21	$1,625	24	$1,817	24	$2,258	23	$1,665	23
	($3,194)		($3,778)		($2,449)		($2,049)		($4,209)		($3,126)	
TCNR: Value-added	$1,214	19	$470	21	$1,410	23	$1,763	24	$2,089	21	$1,119	22
	($2,605)		($2,917)		($2,013)		($1,848)		($3,214)		($3,078)	
TCNR: Mixed method	$1,239	19	$463	21	$1,436	23	$1,775	24	$2,141	21	$1,181	22
	($2,644)		($2,969)		($2,043)		($1,859)		($3,282)		($3,061)	

Table A.4: Percent difference between methods for variable cost net revenue with mixed method as baseline.

Species Group	Year	Input pounds (%)	Value-added (%)	Output pounds (%)
Pacific whiting	2009	-21.30	0.80	-17.80
Pacific whiting	2010	-53.20	4.20	-7.10
Pacific whiting	2011	-53.50	4.60	-45.00
Pacific whiting	2012	-32.00	2.50	-27.20
Pacific whiting	2013	-79.70	7.70	-76.20
Pacific whiting	2014	-128.30	11.20	-99.60
Non-whiting groundfish	2009	-39.40	3.80	4.30
Non-whiting groundfish	2010	46.80	-5.10	61.80
Non-whiting groundfish	2011	-2.30	-1.80	14.90
Non-whiting groundfish	2012	-2.90	-0.50	17.20
Non-whiting groundfish	2013	-18.40	-0.90	7.50
Non-whiting groundfish	2014	-19.50	-1.20	14.10
Other	2009	20.40	-1.40	7.20
Other	2010	-0.20	0.60	-23.10
Other	2011	14.20	-1.30	7.10
Other	2012	6.60	-0.50	1.10
Other	2013	5.60	-1.90	0.60
Other	2014	35.30	-3.40	19.40

Table A.5: Percent difference between methods for total cost net revenue with mixed method as baseline.

Year	Species Group	Input pounds (%)	Value-added (%)	Output pounds (%)
2009	Pacific whiting	-14.20	1.90	9.70
2010	Pacific whiting	-49.50	3.80	25.40
2011	Pacific whiting	-132.40	9.90	-110.00
2012	Pacific whiting	-57.90	3.70	-48.60
2013	Pacific whiting	-155.60	12.80	-147.30
2014	Pacific whiting	-382.60	26.90	-293.70
2009	Non-whiting groundfish	-67.70	4.80	-1.10
2010	Non-whiting groundfish	89.60	-8.00	113.40
2011	Non-whiting groundfish	-0.30	-2.30	24.30
2012	Non-whiting groundfish	-2.30	-0.60	27.80
2013	Non-whiting groundfish	-26.30	-1.20	13.40
2014	Non-whiting groundfish	-25.90	-1.90	38.60
2009	Other	24.30	-2.00	-2.30
2010	Other	-9.50	1.50	-100.50
2011	Other	24.70	-1.80	13.20
2012	Other	10.50	-0.70	2.40
2013	Other	12.90	-2.40	5.50
2014	Other	72.40	-5.30	41.00

Table A.6: Shoreside Pacific whiting: Median variable and total cost net revenue (thousands of $).

Method_Measure	2009	2010	2011	2012	2013	2014
VCNR: Output pounds	216.91	-53.99	-355.23	808.02	219.83	295.71
VCNR: Value-added	596.26	160.01	1,378.24	1,575.84	1,591.87	1,161.93
VCNR: Mixed method	515.67	93.33	1,142.65	1,494.98	1,551.48	919.95
VCNR: Input pounds	81.14	-113.47	-332.74	750.16	134.56	70.44
TCNR: Output pounds	14.10	-160.81	-702.95	460.71	-129.82	-389.22
TCNR: Value-added	45.93	-1.51	1,104.62	1,084.45	618.12	631.36
TCNR: Mixed method	32.38	-9.97	869.03	1,003.58	577.73	447.55
TCNR: Input pounds	-193.29	-424.67	-1,543.62	257.84	-624.23	-1,042.95

Table A.7: Non-whiting groundfish: Median variable and total cost net revenue (thousands of $).

Method_Measure	2009	2010	2011	2012	2013	2014
VCNR: Output pounds	7.69	72.89	74.51	50.90	18.30	3.74
VCNR: Value-added	54.53	42.98	39.62	71.08	53.19	40.59
VCNR: Mixed method	49.21	51.45	52.58	52.18	43.08	29.63
VCNR: Input pounds	8.59	107.56	41.29	26.02	8.15	-1.09
TCNR: Output pounds	-4.42	62.19	21.20	15.52	7.41	-20.11
TCNR: Value-added	-0.54	-0.22	25.26	53.52	9.50	18.89
TCNR: Mixed method	-0.81	-0.95	22.03	39.36	11.51	17.05
TCNR: Input pounds	-3.22	83.64	-0.54	12.92	4.30	-1.10

Table A.8: Other species: Median variable and total cost net revenue (thousands of $).

Method_Measure	2009	2010	2011	2012	2013	2014
VCNR: Output pounds	1,156.35	470.69	923.62	1,896.30	1,147.25	684.32
VCNR: Value-added	838.46	436.14	774.28	2,038.43	1,132.18	297.68
VCNR: Mixed method	903.07	430.58	845.86	2,035.46	1,132.88	320.57
VCNR: Input pounds	1,357.73	470.68	1,002.02	1,985.40	1,140.69	693.98
TCNR: Output pounds	233.49	138.53	533.00	1,414.85	763.02	342.27
TCNR: Value-added	220.43	121.10	549.63	1,515.10	1,078.50	163.37
TCNR: Input pounds	311.24	151.58	559.11	1,560.99	840.14	565.79
TCNR: Mixed method	220.76	158.21	551.31	1,518.77	1,079.19	186.21

IO-PAC Model

1 Revenue, Fish Costs, Markup, and Other Inputs

This appendix reports the EDC data for first receivers and shorebased processors that are used in the IO-PAC model.[1] All EDC respondents (Processors and Non-Processors) are included in the following tables. The average markup (Table B.3) for the IO-PAC model was calculated by dividing the total value of production (Table B.1) by the total cost of all fish put into production (Table B.2). The costs of fish include fish received from trawl vessel, fixed gear vessels, other vessel, and non-vessel sources. The fish purchased can include pre-processed product types. The production value includes production of unprocessed and processed products. In the tables below, the "N" represents the total number of first receivers who reported processing in 2009 and 2010, and the total number of first receivers that reported information in 2011 (see Section 1.2).

1.1 Total production revenue by IO-PAC species

[1] Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

Table B.1: Total value of fish production by IO-PAC species.

Species	2009 N=23	2010 N=25	2011 N=34	2012 N=34	2013 N=33	2014 N=26
	$	$	$	$	$	$
CPS	13,396,491	12,526,986	13,680,660	44,558,022	26,668,099	16,652,768
Crab	77,290,802	106,290,143	105,110,926	121,959,676	134,654,754	111,658,503
Dover and thornyhead	22,181,823	21,219,486	18,136,394	21,429,678	22,285,123	18,279,462
Halibut	4,320,134	3,306,679	4,176,004	4,819,263	4,869,237	5,990,493
HMS	22,224,997	23,142,862	27,424,696	29,629,519	30,168,183	21,982,730
Sablefish	33,844,434	39,059,711	38,701,565	31,549,703	23,257,567	26,084,970
Salmon	12,952,484	20,585,270	27,907,191	21,045,283	44,181,614	46,522,079
Shrimp	28,982,683	29,508,066	59,079,000	61,760,013	65,107,754	92,488,885
Whiting	46,650,415	33,063,368	70,410,917	53,940,381	74,309,095	71,424,489
Other groundfish	19,543,517	14,371,425	18,201,201	20,939,001	29,158,581	28,081,623

1.2 Total fish purchase cost by IO-PAC species

Table B.2: Total cost of fish purchases by IO-PAC species.

Species	2009 N=23	2010 N=25	2011 N=34	2012 N=34	2013 N=33	2014 N=26
	$	$	$	$	$	$
CPS	5,773,335	5,924,551	5,583,202	19,862,760	16,730,147	5,598,848
Crab	38,959,169	72,652,739	72,628,440	83,917,504	94,531,386	83,349,318
Dover and thornyhead	11,446,179	9,684,127	8,546,304	9,413,451	11,583,874	9,116,208
Halibut	2,985,559	2,582,359	3,657,804	4,724,285	4,458,188	5,057,644
HMS	11,944,324	17,756,805	18,240,617	26,345,983	17,904,692	15,746,339
Sablefish	25,304,216	25,022,614	30,094,983	23,685,466	17,046,114	20,131,290
Salmon	6,169,633	16,021,568	20,244,308	14,306,952	31,548,404	33,754,899
Shrimp	11,968,654	16,212,378	29,625,173	30,020,581	31,727,285	46,484,233
Whiting	12,748,568	9,079,961	24,030,114	19,458,842	29,043,025	25,869,162
Other groundfish	9,778,066	9,349,143	10,426,577	13,214,281	14,049,095	15,208,139

1.3 Markup

Table B.3: Average industry markup by IO-PAC species.

Species	2009 N=23 Average	2010 N=25 Average	2011 N=34 Average	2012 N=34 Average	2013 N=33 Average	2014 N=26 Average
CPS	2.32	2.11	2.45	2.24	1.59	2.97
Crab	1.98	1.46	1.45	1.45	1.42	1.34
Dover and thornyhead	1.94	2.19	2.12	2.28	1.92	2.01
Halibut	1.45	1.28	1.14	1.02	1.09	1.18
HMS	1.86	1.30	1.50	1.12	1.68	1.40
Sablefish	1.34	1.56	1.29	1.33	1.36	1.30
Salmon	2.10	1.28	1.38	1.47	1.40	1.38
Shrimp	2.42	1.82	1.99	2.06	2.05	1.99
Whiting	3.66	3.64	2.93	2.77	2.56	2.76
Other groundfish	2.00	1.54	1.75	1.58	2.08	1.85

1.4 Other IO-PAC inputs

The IO-PAC model uses inputs from the following summary tables, which show the total value and number of respondents for each category. The "N" listed next to the totals reported by row represents the number of non-zero, non-NA responses for that category.

Table B.4: Total production employee hours.

	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
January	39,777.9	20	37,202.0	23	55,372.2	26	54,252.1	25	65,180.3	25	37,451.9	23
February	20,656.1	20	35,202.8	23	44,937.6	26	49,561.8	25	55,195.0	25	31,148.1	23
March	27,517.3	20	31,669.4	23	34,569.8	26	33,703.8	25	47,691.7	25	31,246.0	23
April	28,784.0	19	40,923.3	22	41,610.5	27	43,750.9	25	36,482.7	25	47,104.7	23
May	47,476.4	19	67,121.1	22	55,858.1	28	47,702.6	25	62,469.6	25	56,548.8	24
June	68,213.1	19	69,531.0	23	90,752.2	28	51,026.5	26	56,662.2	25	57,078.4	24
July	126,217.1	20	90,689.0	23	151,045.4	29	108,862.1	27	107,126.4	25	86,816.0	24
August	68,666.9	20	99,673.2	23	161,966.5	29	115,936.9	27	172,013.5	25	107,255.7	24
September	55,218.8	20	69,529.4	22	124,299.8	29	98,102.9	27	138,798.3	25	105,893.9	24
October	82,422.9	20	50,173.8	22	75,294.7	28	99,266.6	26	104,781.1	25	78,157.2	24
November	51,296.2	19	46,631.3	22	53,358.9	28	78,196.6	26	67,263.9	25	47,416.5	24
December	106,558.7	20	125,508.7	23	108,047.4	27	64,721.6	26	49,647.3	25	51,424.3	23

Table B.5: Total number of production employees.

	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
January	1,495	20	1,765	23	1,895	26	1,890	25	1,991	25	1,389	23
February	1,212	20	1,471	23	1,640	26	1,950	25	1,712	25	1,122	23
March	1,233	20	1,340	23	1,183	26	1,341	25	1,538	25	1,137	23
April	1,243	19	1,411	22	1,267	27	1,435	25	1,425	25	1,415	23
May	1,462	19	1,977	22	1,358	28	1,558	25	1,700	25	1,453	24
June	2,195	19	2,138	23	2,099	28	1,913	26	1,722	25	1,709	24
July	2,730	20	2,436	23	3,153	29	2,658	27	2,611	25	2,248	24
August	2,059	20	2,750	23	3,004	29	2,794	27	2,871	25	2,385	24
September	2,011	20	2,059	22	2,732	29	2,492	27	2,984	25	2,325	24
October	1,905	20	1,840	22	1,998	28	2,417	26	2,480	25	2,004	24
November	1,552	19	1,711	22	1,582	28	2,093	26	1,905	25	1,681	24
December	2,881	20	2,560	23	2,476	27	1,733	26	1,691	25	1,657	23

Table B.6: Total number and hours of non-production employees.

	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Hours Worked	12,286.4	21	17,246.4	22	11,155.9	31	8,437.8	29	10,682.4	26	8,525.3	25
Number of employees	200.0	21	268.0	22	222.0	31	208.0	29	209.0	26	204.0	25

Table B.7: Total employee expenses.

Employment Expenses	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Production workers	$33,997,783	21	$32,378,076	23	$47,088,146	29	$48,230,310	27	$54,928,785	25	$52,088,724	24
Non-production employees	$9,018,992	20	$10,395,436	22	$12,190,655	29	$13,477,516	29	$13,718,686	26	$16,197,030	25

Table B.8: Total expenditures on buildings and equipment.

Capital Expenditures	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Capitalized expenditures on buildings	$6,162,592	14	$6,661,913	13	$3,335,907	10	$2,534,717	16	$879,798	12	$2,345,405	14
Capitalized expenditures on new and used machinery and equipment	$21,984,534	21	$24,371,908	20	$10,401,956	22	$6,347,698	22	$7,379,470	21	$9,724,315	19
Expenses on processing equipment	$490,838	15	$558,311	17	$629,867	21	$754,358	16	$860,335	15	$1,002,506	16
Expenses on rental or lease of buildings, job-site trailers, and other structures	$2,586,591	22	$2,718,740	23	$3,157,235	26	$3,374,004	26	$4,290,352	24	$3,994,516	25
Expenses on repair and maintenance on facility buildings, machinery, and equipment	$5,061,722	22	$5,354,384	23	$6,240,589	30	$6,276,637	29	$6,992,167	26	$8,241,713	24

Table B.9: Total utility expenses.

Sum of Utilities Expenses	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Electricity	$3,706,575	22	$4,010,386	23	$4,526,426	30	$5,075,940	28	$5,281,880	26	$5,406,126	25
Natural gas	$1,137,666	12	$1,047,859	12	$345,217	12	$335,271	10	$318,812	10	$304,109	10
Nitrogen gas	—	—	—	—	***	***	***	***	$592,451	3	$619,586	3
Propane gas	$455,315	16	$891,484	19	$822,756	23	$685,002	23	$634,061	22	$614,966	20
Water	$1,535,981	22	$1,987,467	23	$2,413,399	27	$2,648,876	27	$3,010,608	24	$2,895,485	25
Sewer, waste, and byproduct disposal	$754,150	20	$948,087	20	$1,217,320	25	$1,417,258	22	$1,648,078	21	$1,582,591	21

Table B.10: Total other expenses.

Sum of Other Expenses	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Cleaning and custodial supplies	—	—	—	—	$397,674	24	$515,531	26	$622,500	22	$652,370	22
Freight costs for supplies	$1,692,815	10	$1,735,573	11	$1,531,957	8	$2,253,004	12	$3,839,433	14	$4,221,607	13
Insurance (property, product, and personal liability)	$3,009,296	20	$2,966,941	22	$1,940,059	29	$1,826,144	28	$2,301,033	25	$2,305,679	25
Licensing fees	—	—	—	—	$296,498	30	$341,258	31	$457,516	26	$401,414	28
Non-fish ingredients (additives)	$716,795	10	$676,366	11	$1,486,449	13	$2,600,295	14	$1,882,334	14	$2,540,233	13
Off-site product freezing and storage	$3,203,129	17	$3,804,195	18	$6,068,260	17	$8,297,012	18	$10,578,771	18	$9,742,868	19
Offloading	—	—	—	—	$762,062	16	$1,504,792	17	$1,838,694	13	$1,317,170	15
Packing materials	$13,286,417	22	$12,164,947	24	$13,235,794	29	$12,998,500	30	$13,495,120	27	$13,266,539	26
Production supplies	$2,267,970	19	$2,574,746	23	$1,303,346	26	$1,659,855	26	$2,018,103	22	$2,327,320	24
Shoreside monitoring	$181,209	12	$456,947	13	$119,793	22	$148,222	21	$313,394	21	$320,083	23
Taxes (property and excise)	—	—	—	—	$1,351,010	27	$1,543,594	27	$1,905,762	24	$1,637,713	25

Table B.11: Total custom processing.

Custom Processing	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Cost of custom processing of whiting	852,453	3	***	***	***	***	***	***	***	***	***	***
Cost of custom processing of non-whiting groundfish	1,297,339	3	420,546	3	***	***	***	***	***	***	***	***
Cost of custom processing of other (non-whiting, non-groundfish)	1,359,705	3	1,305,629	4	928,741	4	602,824	4	783,441	3	740,226	4
Weight of custom processing of whiting	3,870,863	3	***	***	***	***	***	***	***	***	***	***
Weight of custom processing of non-whiting groundfish	4,079,781	3	1,382,174	3	***	***	***	***	***	***	***	***
Weight of custom processing of other (non-whiting, non-groundfish)	6,202,438	3	5,605,518	4	2,965,509	3	253,555	3	4,488,301	3	***	***

Table B.12: Total other revenue.

Other Revenue	2009		2010		2011		2012		2013		2014	
	Total	N	Total	N	Total	N	Total	N	Total	N	Total	N
Custom processing of whiting	***	***	***	***	***	***	474,876	4	496,646	4	***	***
Custom processing of non-whiting groundfish	***	***	89,854	3	667,714	5	1,070,067	6	1,369,011	5	***	***
Custom processing of other (non-whiting, non-groundfish)	379,196	6	483,527	7	1,063,806	5	1,572,122	6	—	—	—	—
Offloading	—	—	—	—	1,862,756	13	1,625,459	17	1,644,300	15	1,751,996	15