

Economic Data Collection Program
First Receiver and Shorebased Processor Report
2009-2011

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Summary

This report summarizes information collected from West Coast groundfish first receivers and shorebased processors as a part of the Economic Data Collection (EDC) program, which was enacted to monitor the economic effects of the 2011 transition of the West Coast groundfish trawl fishery to a catch share program. The catch share program consists of cooperative programs for the at-sea mothership and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet. Annual EDC submissions are required from all companies with first receiver site licenses and companies that buy headed and gutted IFQ groundfish from first receivers. This report, and its companion reports covering the other sectors, is the first in what is expected to be an annual series of reports. The scope and methods used are expected to be expanded and refined with each annual publication.

This report covers the years 2009 to 2011. It contains information from first receivers and shorebased processors about annual processing operations, number of employees and payroll, and facility characteristics. The weight and costs of fish purchases by species, and weight and revenue for product production are provided. The report also contains variable and fixed cost information, production, revenues, and calculated net revenue. Finally, a breakdown of costs, revenue, and net revenue per pound of production, and per pound of fish purchased provide basic metrics of the economic performance of first receivers and shorebased processors.

1 Introduction

1.1 Background

In January 2011, the West Coast groundfish trawl fishery transitioned to a catch share program. The catch share program consists of an individual fishing quota (IFQ) program for the shorebased trawl fleet, and cooperative programs for the at-sea mothership and catcher-processor fleets. The Economic Data Collection (EDC) Program¹ 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, was submitted in 2011 for the 2009 and 2010 operating years. Data for the first year the fishery operated under catch shares (2011) were submitted in 2012.

This report summarizes the 2009-11 EDC first receiver and shorebased processor survey data. 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 cost and earnings data are available for some of the catcher vessels in the groundfish fishery from voluntary cost and earnings surveys², this is the first economic data collection from first receivers and shorebased processors. In addition to the first receiver and shorebased processor report, there are four companion reports:

- Economic Data Collection Program, Administration and Operations Report (February 2014)
- Economic Data Collection Program, Catcher-Processor Report, 2009-2011 (February 2014)
- Economic Data Collection Program, Catcher Vessel Report, 2009-2011 (February 2014)
- Economic Data Collection Program, Mothership Report, 2009-2011 (February 2014)

¹Additional information on the EDC Program, including the EDC data collection forms can be found at www.nwfsc.noaa.gov/edc

²Lian, 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.

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 forms.

This first receiver and shorebased processor report and other reports, listed above, comprise the first of what is expected to be an annual series of reports. It is envisioned that over time the scope of these reports will expand, and the methods used will be refined with each annual publication. As such, the data summaries and analyses may change in subsequent years as improvements are implemented. In general, the report provides summaries as sector totals or means. Future reports will contain additional summaries that describe the variation of the data, either numerically or graphically. They are not contained in this report due to time constraints.

1.2 Purpose of the report

This report, as well as the other three EDC data summary reports have 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.

Second, the data summary reports 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. It is expected that additional modeling and analysis will be included in each subsequent year that will provide more detailed information about the performance of the program. 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 NMFS National Catch Shares Performance Indicators. Currently, with just a single year of catch share EDC data, it may be difficult to draw firm conclusions about the performance of the program. In addition, the catch share program may have a transitional period in the first few years as participants learn about the system and develop new business strategies.

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, 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.

1.3 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 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 Economic Data Collection (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 IFQ 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 2012 data were collected from all owners of a first receiver site license in 2011. 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.

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.

1.4 About the survey participants

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. Many respondents who provide information do not own a physical processing facility and thus do not incur many of the costs on the form. Thus, the summary statistics often are calculated with a large number of zeroes, as can be seen in the comparison of means to medians for many of the variables.

1.5 Understanding the report

Not all business entities with a first receiver license process fish, and much of the survey does not correspond to this type of operation. On 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 all participants are required to answer all questions. Thus, the data available for this report are from first receivers and shorebased processors who processed in 2009 and 2010, and for all first receivers and shorebased processors in 2011. Based on the information provided on production activities, Table 1.1 shows the number of active processors who provided data used to populate the tables in this report. In 2009 and 2010, this number is the total number used to calculate the mean and median, as indicated in the N headers of the columns in the report. In 2011, the EDC Program received forms from first receivers or shorebased processors that did not report any processing activity, however the total number of companies, regardless of whether they processed fish is used to calculate summary statistics.

Owners of multiple facilities are required to submit a form for each processing facility. For the ease of analysis and to protect confidentiality, businesses that reported for multiple facilities are considered a single "entity". 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", which for the purposes of calculating averages and medians in this report are converted to 0. If a particular category had only "NA" responses for all participants, a "—" symbol is used. The "—" symbol also represents cases where the information was not requested on the form for that survey year. In 2009 and 2010 only values from businesses with processing activity are reported in the report, from 2011 onward the values for average and median in every case will reflect the number of businesses who submitted forms. Thus, comparison pre and post baseline is difficult, as the population providing responses has changed along with the new IFQ program regulations.

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.

Table 1.1: Number of companies that reported processing activity and number of companies that submitted EDC forms, number of forms that are complete, forms that were submitted, and total forms owed by survey year.

Status	2009	2010	2011
Companies that processed fish	23	25	27
Companies that submitted forms	29	37	35
Complete forms	37	45	48
Submitted forms	37	45	50
Total forms owed	55	58	52

2 Facility Value

2.1 Appraisal value of facility

As mentioned in the introduction, some first receivers act only as offloaders and thus do not have a processing facility. In addition, some business respondents rent a physical location and thus were not able to provide a facility appraisal value. Thus, the median for these variables is zero.

Table 2.1: Value from last appraisal of facility (2009 N=23, 2010 N=25, 2011 N=33).

	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Market value of facility from last appraisal	\$262,435	\$0	\$392,205	\$0	\$174,273	\$0
Replacement value of facility from last appraisal	\$1,116,161	\$0	\$1,234,668	\$0	\$596,718	\$0

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. Workers involved directly with production and non-production employees are provided separately.

3.0.1 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 a weekly snapshot of employment for each month throughout the year.

Table 3.1: Weekly employment. Number of production workers for the week that includes the 12th of the month (2009 N=23, 2010 N=25, 2011 N=33).

Month	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
January	65	29	71	35	57	11
February	53	27	59	23	49	11
March	54	28	54	23	35	11
April	54	28	56	27	38	13
May	64	32	79	37	40	10
June	95	72	86	54	63	13
July	119	113	97	86	95	30
August	90	37	110	73	90	34
September	87	37	82	41	82	34
October	83	35	74	37	60	19
November	67	32	68	28	47	12
December	125	138	102	69	74	19

Table 3.2: Weekly employment. Hours worked by production workers for the week that includes the 12th of the month (2009 N=23, 2010 N=25, 2011 N=33).

Month	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
January	1,729.5	956.0	1,488.1	537.0	1,666.3	498.0
February	898.1	451.2	1,408.1	415.0	1,350.6	451.0
March	1,196.4	823.3	1,266.8	512.0	1,036.0	401.0
April	1,251.5	834.0	1,636.9	590.0	1,251.8	360.0
May	2,064.2	986.9	2,684.8	1,037.0	1,693.8	380.0
June	2,965.8	2,015.9	2,781.2	1,466.0	2,755.7	520.0
July	5,487.7	2,641.8	3,627.6	2,317.0	4,587.5	1,434.5
August	2,985.5	1,402.0	3,986.9	1,258.2	4,934.5	1,383.0
September	2,400.8	983.0	2,781.2	749.8	3,791.1	1,455.0
October	3,583.6	1,041.0	2,007.0	1,295.0	2,285.0	579.0
November	2,230.3	882.9	1,865.3	604.2	1,609.3	364.0
December	4,633.0	3,108.0	5,020.3	1,266.9	3,267.3	809.0

3.0.2 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 workweek. These employment figures, similar to the production worker data above, are for the week that includes the 12th of March.

Table 3.3: Weekly employment. Number of non-production employees and hours worked for the week that includes March 12 (2009 N=23, 2010 N=25, 2011 N=33).

	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Hours Worked	534.2	204.0	689.9	200.0	347.5	200.0
Number of employees	8.7	6.0	10.7	5.0	6.9	4.0

4 Costs

This section of the report describes the cost data that are collected on the EDC first receiver and shorebased processor form. For the purposes of EDC, 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 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, 4.3, 4.4, 4.5, and all tables listed under Section 4.2.6 to be variable. The EDC Program will continue to explore, and possibly improve, the categorization of these costs.

In order to conduct economic analyses of specific fisheries it is important to have costs broken out by fishery. At this time, the EDC Program is investigating methods to accomplish this for first receivers and shorebased processors.

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 of 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 forms attempt 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 (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.

4.1 Fixed Costs

4.1.1 Buildings and processing equipment costs

Participants were asked in 2009 and 2010 about selected expenses only if they processed fish. In 2011, this information was requested regardless of whether they processed fish if they possessed a first receiver site license.

Table 4.1: Buildings and processing equipment costs. Capitalized expenditures, rental or lease payments, processing equipment expenses, repair and maintenance expenses (2009 N=23, 2010 N=25, 2011 N=33).

Cost	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Capitalized expenditures on buildings	\$267,939	\$3,782	\$266,477	\$122	\$101,088	\$0
Capitalized expenditures on new and used machinery and equipment	\$955,849	\$111,496	\$974,876	\$68,000	\$311,638	\$14,759
Processing equipment	\$21,341	\$8,900	\$22,332	\$9,914	\$19,010	\$5,052
Rental or lease of buildings, job-site trailers, and other structures	\$112,460	\$116,290	\$108,750	\$110,400	\$95,012	\$86,800
Repair and maintenance on facility buildings, machinery, and equipment	\$220,075	\$140,857	\$214,175	\$92,965	\$188,720	\$76,596

4.2 Variable Costs

4.2.1 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 (includes wages, bonuses, benefits, payroll taxes, and unemployment insurance) (2009 N=23, 2010 N=25, 2011 N=33).

Expense	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Production workers	\$1,478,164	\$978,974	\$1,295,123	\$626,987	\$1,404,891	\$329,100
Non-production employees	\$392,130	\$274,900	\$415,817	\$276,700	\$366,351	\$185,055

4.2.2 Quota costs

Not enough processors reported quota costs to be able to display this information.

4.2.3 Utility expenses

Many respondents did not provide expenses on natural gas, either because they did not incur this expense or because that information was not available. Because less than half of respondents reported a positive value, the median expense on this category is 0 (Table 4.3)

4.2.4 Other expenses

Some new categories were added in the 2011 form reflecting feedback on the baseline surveys. Thus information on these categories of spending is only available for 2011 and beyond (Table 4.4).

4.2.5 Custom processing

Custom processing is when a third party processes fish that are owned by the respondent. The processing occurs outside the facility responding to the EDC. Because most processors did not report any custom processing activity in all three-survey years, the median costs and revenue for this table are 0 (Table 4.5).

Table 4.3: Utility expenses (2009 N=23, 2010 N=25, 2011 N=33).

Expense	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Electricity	\$161,155	\$88,416	\$160,415	\$102,800	\$136,828	\$42,996
Natural gas	\$49,464	\$741	\$41,914	\$0	\$10,443	\$0
Nitrogen gas	—	—	—	—	***	***
Propane gas	\$19,796	\$5,179	\$35,659	\$6,648	\$24,932	\$5,029
Water	\$66,782	\$21,051	\$79,499	\$25,995	\$73,054	\$7,226
Sewer, waste, and byproduct disposal	\$32,789	\$16,698	\$37,923	\$16,194	\$36,846	\$5,790

Table 4.4: Other expenses (2009 N=23, 2010 N=25, 2011 N=33).

Expense	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Cleaning and custodial supplies	—	—	—	—	\$11,838	\$2,300
Freight costs for supplies	\$73,601	\$0	\$69,423	\$0	\$46,423	\$0
Insurance (property, product, and personal liability)	\$130,839	\$92,096	\$118,678	\$79,793	\$58,696	\$30,644
Licensing fees	—	—	—	—	\$8,891	\$5,550
Non-fish ingredients (additives)	\$31,165	\$0	\$27,055	\$0	\$44,963	\$0
Off-site product freezing and storage	\$139,266	\$40,948	\$152,168	\$47,892	\$183,593	\$0
Offloading	—	—	—	—	\$22,617	\$0
Packing materials	\$577,670	\$165,813	\$486,598	\$141,459	\$400,149	\$77,513
Production supplies	\$98,607	\$40,627	\$102,990	\$25,295	\$39,395	\$9,184
Shoreside monitoring	\$7,879	\$7,790	\$18,278	\$200	\$3,630	\$203
Taxes (property and excise)	—	—	—	—	\$40,834	\$11,580

Table 4.5: Custom processing: cost and weight of custom processing activities (2009 N=23, 2010 N=25, 2011 N=33).

Expense	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Cost of custom processing of whiting	37,063	0	***	***	***	***
Cost of custom processing of non-whiting groundfish	56,406	0	16,822	0	23,770	0
Cost of custom processing of other (non-whiting, non-groundfish)	59,118	0	52,225	0	28,144	0
Weight of custom processing of whiting	168,298	0	***	***	***	***
Weight of custom processing of non-whiting groundfish	177,382	0	55,287	0	71,228	0
Weight of custom processing of other (non-whiting, non-groundfish)	269,671	0	224,221	0	89,864	0

4.2.6 Fish purchases

Respondents are asked to provide the weight and cost of fish received during the survey year. This includes the weight of fish paid for, and weight of those not paid for due to size or quality reasons, as well as the weight of fish not paid for that were transferred from outside the facility.

The cost requested is the gross cost of fish paid for from vessel or non-vessel sources, which 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, including Limited Entry (LE) Trawl and LE Fixed Gear for catch share groundfish species, as well as other vessels and non-vessel sources for these species and a selection of non-catch share species. In the tables below, 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 sources are those vessels 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. 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.

The following tables do not include fish not paid for and fish 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.

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

Table 4.6: Pacific whiting: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	6,926,140	88,683,598	8,561,000	102,130,197	22,675,265	204,027,788
Non-vessel	—	—	—	—	***	***
Other	***	28,945,685	556,093	6,519,875	—	—
Other Vessel	—	—	—	—	***	***

Table 4.7: Dover sole: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	7,376	18,638	***	***	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	8,469,659	24,251,654	6,923,635	21,582,587	6,572,008	15,364,917
Non-vessel	—	—	—	—	418,242	798,723
Other	***	***	471,143	1,249,786	—	—
Other Vessel	—	—	—	—	***	***

Table 4.8: Sablefish: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	10,856,992	3,576,185	11,694,489	3,675,457	—	—
LE Fixed Gear	—	—	—	—	10,017,023	2,558,688
LE Trawl	12,011,940	5,756,986	9,723,378	4,440,193	8,875,222	2,975,103
Non-vessel	—	—	—	—	1,920,880	750,515
Other	2,435,284	1,015,701	3,604,747	1,705,355	—	—
Other Vessel	—	—	—	—	8,614,729	1,628,709

Table 4.9: Thornyheads: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	5,929	7,648	***	***	—	—
LE Fixed Gear	—	—	—	—	141,223	135,279
LE Trawl	2,459,243	4,804,537	2,334,753	4,309,158	1,643,623	2,657,570
Non-vessel	—	—	—	—	30,296	62,305
Other	***	***	***	***	—	—
Other Vessel	—	—	—	—	2,659	4,295

Table 4.10: English sole: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	165,958	526,852	97,166	303,955	74,430	158,819
Non-vessel	—	—	—	—	50,320	***
Other	***	***	***	***	—	—
Other Vessel	—	—	—	—	***	***

Table 4.11: Petrale sole: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	3,180,312	3,980,338	1,699,717	1,478,513	2,039,701	1,415,873
Non-vessel	—	—	—	—	597,149	337,725
Other	506,952	398,494	277,237	163,765	—	—
Other Vessel	—	—	—	—	228	161

Table 4.12: Rex sole: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	376,434	1,098,250	309,644	934,694	271,410	733,793
Non-vessel	—	—	—	—	76,259	72,869
Other	63,823	***	74,690	90,201	—	—
Other Vessel	—	—	—	—	1,849	5,072

Table 4.13: Arrowtooth flounder: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	—	—	—	—	1,234,126	4,110,655
Non-vessel	—	—	—	—	***	***
Other Vessel	—	—	—	—	972	9,504

Table 4.14: Lingcod: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	10,405	12,692	8,588	10,420	—	—
LE Fixed Gear	—	—	—	—	2,994	3,367
LE Trawl	160,718	248,419	97,710	142,564	358,058	457,219
Non-vessel	—	—	—	—	153,684	155,864
Other	105,949	83,597	100,384	86,007	—	—
Other Vessel	—	—	—	—	12,668	12,915

Table 4.15: Rockfish: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	74,698	116,100	182,382	224,163	—	—
LE Fixed Gear	—	—	—	—	68,684	70,233
LE Trawl	1,510,733	2,202,598	943,136	1,797,434	1,576,424	2,921,468
Non-vessel	—	—	—	—	1,810,213	2,082,579
Other	1,283,434	***	1,362,707	1,871,696	—	—
Other Vessel	—	—	—	—	77,555	83,341

Table 4.16: Sanddab: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	—	—	—	—	177,065	302,823
Non-vessel	—	—	—	—	14,481	16,344
Other Vessel	—	—	—	—	***	***

Table 4.17: Sharks, skates and rays: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	9,327	43,151	15,749	58,003	—	—
LE Fixed Gear	—	—	—	—	32,796	22,378
LE Trawl	520,991	2,677,474	738,823	2,877,466	804,333	2,594,783
Non-vessel	—	—	—	—	113,492	***
Other	143,336	***	112,493	197,319	—	—
Other Vessel	—	—	—	—	33,519	70,123

Table 4.18: Crab: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	38,959,169	19,199,830	72,652,739	36,337,198	—	—
Non-vessel	—	—	—	—	7,941,561	3,135,104
Vessel	—	—	—	—	65,114,809	27,057,400

Table 4.19: Shrimp: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	11,968,654	32,020,392	16,219,329	43,783,349	—	—
Non-vessel	—	—	—	—	5,499,974	6,673,515
Vessel	—	—	—	—	25,703,576	52,811,385

Table 4.20: Coastal pelagics: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	5,376,267	47,657,255	5,297,512	46,244,386	—	—
Non-vessel	—	—	—	—	458,326	311,887
Vessel	—	—	—	—	4,605,648	39,367,648

Table 4.21: Salmon: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	6,169,633	4,822,417	16,260,063	6,655,626	—	—
Non-vessel	—	—	—	—	8,303,967	3,201,382
Vessel	—	—	—	—	12,341,500	8,413,789

Table 4.22: Tuna: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	9,040,515	8,609,134	12,849,193	10,470,768	—	—
Non-vessel	—	—	—	—	3,205,435	***
Vessel	—	—	—	—	13,025,706	6,532,079

Table 4.23: California halibut: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	568,491	117,882	687,811	148,736	—	—
Non-vessel	—	—	—	—	497,716	85,666
Vessel	—	—	—	—	639,225	137,372

Table 4.24: Pacific halibut: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	2,417,068	517,439	1,894,548	272,335	—	—
Non-vessel	—	—	—	—	986,142	104,444
Vessel	—	—	—	—	1,211,238	193,757

Table 4.25: Pacific herring: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	***	***	—	—
Non-vessel	—	—	—	—	***	***
Vessel	—	—	—	—	***	***

Table 4.26: Sturgeon: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Non-vessel	—	—	—	—	541,823	187,734
Vessel	—	—	—	—	202,118	78,091

Table 4.27: Echinoderms: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	***	***	***	***	—	—
Non-vessel	—	—	—	—	***	***
Vessel	—	—	—	—	***	***

Table 4.28: Other species: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	2,230,156	10,381,809	4,165,766	16,244,983	—	—
Non-vessel	—	—	—	—	886,746	1,630,141
Vessel	—	—	—	—	1,867,468	3,075,438

Table 4.29: Shellfish: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	6,619,728	2,341,880	5,870,718	1,977,295	—	—
Non-vessel	—	—	—	—	7,112,699	2,747,281
Vessel	—	—	—	—	0	0

Table 4.30: Squid: Total purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	397,069	413,680	645,485	861,281	—	—
Non-vessel	—	—	—	—	484,286	335,060
Vessel	—	—	—	—	155	***

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

Table 4.31: Pacific whiting: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	301,137	3,855,809	342,440	4,085,208	687,129	6,182,660
Non-vessel	—	—	—	—	***	***
Other	***	1,258,508	22,244	260,795	—	—
Other Vessel	—	—	—	—	***	***

Table 4.32: Dover sole: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	321	810	***	***	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	368,246	1,054,420	276,945	863,303	199,152	465,604
Non-vessel	—	—	—	—	12,674	24,204
Other	***	***	18,846	49,991	—	—
Other Vessel	—	—	—	—	***	***

Table 4.33: Sablefish: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	472,043	155,486	467,780	147,018	—	—
LE Fixed Gear	—	—	—	—	303,546	77,536
LE Trawl	522,258	250,304	388,935	177,608	268,946	90,155
Non-vessel	—	—	—	—	58,208	22,743
Other	105,882	44,161	144,190	68,214	—	—
Other Vessel	—	—	—	—	261,052	49,355

Table 4.34: Thornyheads: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	258	333	***	***	—	—
LE Fixed Gear	—	—	—	—	4,279	4,099
LE Trawl	106,924	208,893	93,390	172,366	49,807	80,532
Non-vessel	—	—	—	—	918	1,888
Other	***	***	***	***	—	—
Other Vessel	—	—	—	—	81	130

Table 4.35: English sole: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	7,216	22,907	3,887	12,158	2,255	4,813
Non-vessel	—	—	—	—	1,525	***
Other	***	***	***	***	—	—
Other Vessel	—	—	—	—	***	***

Table 4.36: Petrale sole: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	138,274	173,058	67,989	59,141	61,809	42,905
Non-vessel	—	—	—	—	18,095	10,234
Other	22,041	17,326	11,089	6,551	—	—
Other Vessel	—	—	—	—	7	5

Table 4.37: Rex sole: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	16,367	47,750	12,386	37,388	8,225	22,236
Non-vessel	—	—	—	—	2,311	2,208
Other	2,775	***	2,988	3,608	—	—
Other Vessel	—	—	—	—	56	154

Table 4.38: Arrowtooth flounder: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	—	—	—	—	37,398	124,565
Non-vessel	—	—	—	—	***	***
Other Vessel	—	—	—	—	29	288

Table 4.39: Lingcod: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	452	552	344	417	—	—
LE Fixed Gear	—	—	—	—	91	102
LE Trawl	6,988	10,801	3,908	5,703	10,850	13,855
Non-vessel	—	—	—	—	4,657	4,723
Other	4,606	3,635	4,015	3,440	—	—
Other Vessel	—	—	—	—	384	391

Table 4.40: Rockfish: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	3,248	5,048	7,295	8,967	—	—
LE Fixed Gear	—	—	—	—	2,081	2,128
LE Trawl	65,684	95,765	37,725	71,897	47,770	88,529
Non-vessel	—	—	—	—	54,855	63,108
Other	55,801	***	54,508	74,868	—	—
Other Vessel	—	—	—	—	2,350	2,525

Table 4.41: Sanddab: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	—	—	—	—	5,366	9,176
Non-vessel	—	—	—	—	439	495
Other Vessel	—	—	—	—	***	***

Table 4.42: Sharks, skates and rays: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	406	1,876	630	2,320	—	—
LE Fixed Gear	—	—	—	—	994	678
LE Trawl	22,652	116,412	29,553	115,099	24,374	78,630
Non-vessel	—	—	—	—	3,439	***
Other	6,232	***	4,500	7,893	—	—
Other Vessel	—	—	—	—	1,016	2,125

Table 4.43: Crab: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	1,693,877	834,775	2,906,110	1,453,488	—	—
Non-vessel	—	—	—	—	240,653	95,003
Vessel	—	—	—	—	1,973,176	819,921

Table 4.44: Shrimp: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	520,376	1,392,191	648,773	1,751,334	—	—
Non-vessel	—	—	—	—	166,666	202,228
Vessel	—	—	—	—	778,896	1,600,345

Table 4.45: Coastal pelagics: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	233,751	2,072,055	211,900	1,849,775	—	—
Non-vessel	—	—	—	—	13,889	9,451
Vessel	—	—	—	—	139,565	1,192,959

Table 4.46: Salmon: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	268,245	209,670	650,403	266,225	—	—
Non-vessel	—	—	—	—	251,635	97,012
Vessel	—	—	—	—	373,985	254,963

Table 4.47: Tuna: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	393,066	374,310	513,968	418,831	—	—
Non-vessel	—	—	—	—	97,134	***
Vessel	—	—	—	—	394,718	197,942

Table 4.48: California halibut: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	24,717	5,125	27,512	5,949	—	—
Non-vessel	—	—	—	—	15,082	2,596
Vessel	—	—	—	—	19,370	4,163

Table 4.49: Pacific halibut: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	105,090	22,497	75,782	10,893	—	—
Non-vessel	—	—	—	—	29,883	3,165
Vessel	—	—	—	—	36,704	5,871

Table 4.50: Pacific herring: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	***	***	—	—
Non-vessel	—	—	—	—	***	***
Vessel	—	—	—	—	***	***

Table 4.51: Sturgeon: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Non-vessel	—	—	—	—	16,419	5,689
Vessel	—	—	—	—	6,125	2,366

Table 4.52: Echinoderms: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	***	***	***	***	—	—
Non-vessel	—	—	—	—	***	***
Vessel	—	—	—	—	***	***

Table 4.53: Other species: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	96,963	451,383	166,631	649,799	—	—
Non-vessel	—	—	—	—	26,871	49,398
Vessel	—	—	—	—	56,590	93,195

Table 4.54: Shellfish: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	287,814	101,821	234,829	79,092	—	—
Non-vessel	—	—	—	—	215,536	83,251
Vessel	—	—	—	—	0	0

Table 4.55: Squid: Average purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	17,264	17,986	25,819	34,451	—	—
Non-vessel	—	—	—	—	14,675	10,153
Vessel	—	—	—	—	5	***

4.2.9 Median cost and weight of fish purchases by source and species

Table 4.56: Pacific whiting: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	8,570	122,442	0	0	0	0
Non-vessel	—	—	—	—	***	***
Other	***	0	0	0	—	—
Other Vessel	—	—	—	—	***	***

Table 4.57: Dover sole: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	***	***	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	12,717	29,076	799	1,776	0	0
Non-vessel	—	—	—	—	0	0
Other	***	***	0	0	—	—
Other Vessel	—	—	—	—	***	***

Table 4.58: Sablefish: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	57,133	37,022	12,371	5,402	19	48
Non-vessel	—	—	—	—	0	0
Other	0	0	0	0	—	—
Other Vessel	—	—	—	—	0	0

Table 4.59: Thornyheads: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	1,619	4,692	359	999	5	34
Non-vessel	—	—	—	—	0	0
Other	***	***	***	***	—	—
Other Vessel	—	—	—	—	0	0

Table 4.60: English sole: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	925	1,306	4	12	0	0
Non-vessel	—	—	—	—	0	***
Other	***	***	***	***	—	—
Other Vessel	—	—	—	—	***	***

Table 4.61: Petrale sole: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	42,551	34,732	6,046	5,099	0	0
Non-vessel	—	—	—	—	0	0
Other	0	0	0	0	—	—
Other Vessel	—	—	—	—	0	0

Table 4.62: Rex sole: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	***	***	***	***	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	150	739	131	479	0	0
Non-vessel	—	—	—	—	0	0
Other	0	***	0	0	—	—
Other Vessel	—	—	—	—	0	0

Table 4.63: Arrowtooth flounder: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	—	—	—	—	0	0
Non-vessel	—	—	—	—	***	***
Other Vessel	—	—	—	—	0	0

Table 4.64: Lingcod: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	112	351	1,018	1,166	178	330
Non-vessel	—	—	—	—	0	0
Other	0	0	0	0	—	—
Other Vessel	—	—	—	—	0	0

Table 4.65: Rockfish: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	23,522	36,533	12,817	15,764	10,957	16,026
Non-vessel	—	—	—	—	0	0
Other	0	***	0	0	—	—
Other Vessel	—	—	—	—	0	0

Table 4.66: Sanddab: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
LE Fixed Gear	—	—	—	—	***	***
LE Trawl	—	—	—	—	0	0
Non-vessel	—	—	—	—	0	0
Other Vessel	—	—	—	—	***	***

Table 4.67: Sharks, skates and rays: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fixed Gear	0	0	0	0	—	—
LE Fixed Gear	—	—	—	—	0	0
LE Trawl	162	1,419	294	349	0	0
Non-vessel	—	—	—	—	0	***
Other	0	***	0	0	—	—
Other Vessel	—	—	—	—	0	0

Table 4.68: Crab: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	659,106	307,659	2,293,558	1,267,984	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	324,615	129,846

Table 4.69: Shrimp: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	0	0	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	0

Table 4.70: Coastal pelagics: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	0	0	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	0

Table 4.71: Salmon: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	116,225	19,957	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	32,437	4,918

Table 4.72: Tuna: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	1,782	1,759	124,839	62,946	—	—
Non-vessel	—	—	—	—	0	***
Vessel	—	—	—	—	4,382	2,191

Table 4.73: California halibut: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	0	0	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	0

Table 4.74: Pacific halibut: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	0	0	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	0

Table 4.75: Pacific herring: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	***	***	—	—
Non-vessel	—	—	—	—	***	***
Vessel	—	—	—	—	***	***

Table 4.76: Sturgeon: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	0

Table 4.77: Echinoderms: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	***	***	***	***	—	—
Non-vessel	—	—	—	—	***	***
Vessel	—	—	—	—	***	***

Table 4.78: Other species: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	891	312	820	1,178	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	62	79

Table 4.79: Shellfish: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	0	0	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	0

Table 4.80: Squid: Median purchase weight and value by source (2009 N=23, 2010 N=25, 2011 N=33).

Source	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
All	0	0	0	0	—	—
Non-vessel	—	—	—	—	0	0
Vessel	—	—	—	—	0	***

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 7). It is collected for use in the IO-PAC model.

Table 5.1: Depreciation (2009 N=23, 2010 N=25, 2011 N=33).

	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Depreciation	\$300,497	\$179,452	\$247,226	\$140,463	\$164,239	\$54,154

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 and permits. Beginning with the 2011 form, revenue from offloading fees is also collected.

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

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, and from 2011 onward, offloading. The 2009 and 2010 EDC form did not ask for information regarding offloading fees so these data are not available. Not enough processors reported quota revenue to be able to display this information.

Table 6.1: Other revenue (2009 N=23, 2010 N=25, 2011 N=33).

Revenue Source	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Custom processing of whiting	***	***	***	***	***	***
Custom processing of non-whiting groundfish	\$344	\$0	\$3,594	\$0	\$20,234	\$0
Custom processing of other (non-whiting, non-groundfish)	\$16,487	\$0	\$19,341	\$0	\$32,237	\$0
Offloading	—	—	—	—	\$56,447	\$0

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, this time 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.

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

Table 6.2: Pacific whiting: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fillet	5,913,750	5,401,941	9,633,726	8,203,630	12,203,027	18,735,603
Frozen	***	***	1,252,309	3,753,097	9,063,573	31,185,386
Headed-and-gutted	33,977,602	60,355,185	16,728,738	29,511,159	24,041,049	40,067,088
Other	***	5,450,585	***	***	18,631,798	36,458,042
Roe	0	0	0	0	0	0
Surimi	***	***	***	***	***	***
Unprocessed	***	***	72,041	643,189	***	9,599,068

Table 6.3: Dover sole: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	14,309,647	6,385,055	13,812,198	5,553,627	12,014,561	3,606,959
Frozen	2,724,165	1,269,881	1,990,081	1,266,720	1,609,438	605,338
Other	***	***	***	***	***	***
Unprocessed	***	***	506,386	1,093,883	341,412	1,164,817

Table 6.4: Sablefish: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	5,017,556	1,233,221	6,583,020	1,269,233	5,226,343	1,636,120
Frozen	27,114,518	5,527,723	30,130,688	5,599,424	30,305,667	4,230,991
Other	***	***	***	***	***	***
Unprocessed	1,581,598	568,547	1,981,888	689,801	2,510,753	708,948

Table 6.5: Thornyheads: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	232,621	193,672	366,276	316,184	***	***
Frozen	4,215,773	1,797,303	4,506,427	2,034,275	3,862,581	1,131,368
Other	0	0	***	***	***	***
Unprocessed	105,012	85,212	193,557	286,025	570,171	538,341

Table 6.6: English sole: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	448,652	210,604	232,878	104,091	222,159	69,653
Frozen	98,143	80,929	47,051	43,396	38,185	15,646
Other	0	0	0	0	0	0
Unprocessed	28,926	43,145	12,701	25,219	15,936	34,945

Table 6.7: Petrale sole: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	4,996,318	1,446,848	1,844,320	464,474	2,379,350	432,981
Frozen	633,253	206,578	303,380	101,104	357,728	85,422
Other	0	0	0	0	***	***
Unprocessed	1,554,753	1,005,201	678,714	362,575	1,075,550	500,910

Table 6.8: Rex sole: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	609,140	374,400	363,372	181,933	477,728	222,022
Frozen	398,446	265,406	411,887	324,736	265,624	163,305
Other	0	0	***	***	0	0
Unprocessed	51,024	72,418	27,514	52,140	28,635	56,829

Table 6.9: Arrowtooth flounder: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	—	—	—	—	811,717	723,819
Frozen	—	—	—	—	845,414	***
Other	—	—	—	—	0	0
Unprocessed	—	—	—	—	***	***

Table 6.10: Lingcod: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	341,611	90,891	298,017	71,080	757,940	190,394
Frozen	59,673	10,035	50,764	24,990	192,812	56,133
Other	***	***	***	***	***	***
Unprocessed	111,294	91,137	77,144	47,407	128,565	49,792

Table 6.11: Rockfish: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	3,042,198	1,125,641	2,584,703	969,887	3,031,688	1,077,178
Frozen	749,333	377,321	404,130	216,772	602,256	328,508
Other	***	***	0	0	305,371	164,986
Unprocessed	574,183	495,486	639,377	606,900	1,529,458	1,269,854

Table 6.12: Sanddab: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	—	—	—	—	44,890	9,734
Frozen	—	—	—	—	219,926	69,070
Other	—	—	—	—	***	***
Unprocessed	—	—	—	—	182,817	183,558

Table 6.13: Sharks, skates and rays: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	218,342	191,964	58,015	35,079	90,230	37,368
Frozen	1,520,332	1,129,559	1,690,729	909,944	1,919,674	925,751
Other	***	***	0	0	***	***
Unprocessed	41,844	***	256,189	466,423	513,347	721,854

Table 6.14: Crab: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	38,312,882	7,057,529	49,977,449	11,409,357	34,238,692	6,041,141
Frozen	33,563,409	6,472,240	53,753,583	12,440,746	62,628,800	10,931,573
Other	3,639,603	***	***	***	***	***
Unprocessed	948,270	426,111	1,061,282	474,383	4,965,448	1,900,023

Table 6.15: Shrimp: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	0	0	0	0	***	***
Fresh	5,448,903	3,399,192	5,053,940	3,194,768	3,641,513	1,178,126
Frozen	23,400,774	8,404,742	24,194,901	12,013,054	53,080,118	17,737,167
Other	0	0	***	***	0	0
Unprocessed	***	***	***	***	3,574,616	3,988,514

Table 6.16: Coastal pelagics: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	—	—	—	—	0	0
Fresh	701,362	2,123,256	***	76,592	1,266,605	***
Frozen	6,125,610	14,942,716	4,798,377	13,140,214	11,671,008	35,701,334
Other	5,989,043	25,396,479	6,480,189	27,659,354	***	***
Unprocessed	***	***	***	***	74,364	28,897

Table 6.17: Salmon: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	7,140,642	2,037,991	11,896,653	2,656,044	14,840,395	3,479,634
Frozen	***	***	6,693,301	2,334,364	9,373,401	4,373,480
Other	***	***	***	***	0	0
Smoked	***	***	***	***	***	***
Unprocessed	875,682	251,299	1,630,254	402,952	3,678,462	1,614,458

Table 6.18: Tuna: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	632,757	189,187	643,442	161,753	666,674	148,803
Frozen	13,708,109	9,871,138	13,703,705	8,167,287	16,176,910	6,157,748
Other	***	***	***	***	***	***
Unprocessed	275,676	***	462,273	291,717	4,579,969	2,135,345

Table 6.19: California halibut: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	833,761	97,252	423,213	41,061
Frozen	***	***	***	***	***	***
Other	0	0	***	***	***	***
Unprocessed	504,382	97,423	***	***	861,591	147,375

Table 6.20: Pacific halibut: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	3,037,733	540,653	1,297,073	136,244	1,451,049	151,686
Frozen	298,273	44,963	169,415	19,185	170,472	17,108
Other	***	***	***	***	***	***
Unprocessed	***	***	***	***	808,681	105,791

Table 6.21: Pacific herring: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	***	***
Other	0	0	0	0	0	0
Unprocessed	0	0	0	0	***	***

Table 6.22: Sturgeon: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	0	0	0	0	0	0
Fresh	463,768	99,750	1,075,917	218,060	777,401	136,059
Frozen	***	***	99,466	23,403	***	***
Other	***	***	0	0	0	0
Unprocessed	0	0	***	***	***	***

Table 6.23: Echinoderms: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	***	***	***
Frozen	0	0	0	0	0	0
Other	0	0	0	0	***	***
Unprocessed	***	***	***	***	***	***

Table 6.24: Nonspecies specific: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Bait	—	—	—	—	***	***
Fish oil	***	***	***	***	***	***
Fishmeal	***	***	***	***	***	***
Other	***	***	***	***	***	***

Table 6.25: Other species: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Other	5,729,806	11,914,308	6,364,470	18,845,944	4,772,311	8,555,938

Table 6.26: Shellfish: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	26,361	***	***
Frozen	***	107,192	***	111,860	***	***
Other	0	0	0	0	0	0
Unprocessed	7,582,139	2,210,683	6,481,000	1,836,309	6,490,475	2,042,437

Table 6.27: Squid: Total production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	***	***	***
Frozen	490,282	291,748	794,558	753,678	630,361	349,881
Other	0	0	***	***	0	0
Unprocessed	***	***	***	***	***	***

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

Table 6.28: Pacific whiting: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fillet	257,120	234,867	385,349	328,145	369,789	567,746
Frozen	***	***	50,092	150,124	274,654	945,012
Headed-and-gutted	1,477,287	2,624,138	669,150	1,180,446	728,517	1,214,154
Other	***	236,982	***	***	564,600	1,104,789
Roe	0	0	0	0	0	0
Surimi	***	***	***	***	***	***
Unprocessed	***	***	2,882	25,728	***	290,881

Table 6.29: Dover sole: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	622,159	277,611	552,488	222,145	364,078	109,302
Frozen	118,442	55,212	79,603	50,669	48,771	18,344
Other	***	***	***	***	***	***
Unprocessed	***	***	20,255	43,755	10,346	35,297

Table 6.30: Sablefish: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	218,155	53,618	263,321	50,769	158,374	49,579
Frozen	1,178,892	240,336	1,205,228	223,977	918,354	128,212
Other	***	***	***	***	***	***
Unprocessed	68,765	24,719	79,276	27,592	76,083	21,483

Table 6.31: Thornyheads: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	10,114	8,421	14,651	12,647	***	***
Frozen	183,294	78,144	180,257	81,371	117,048	34,284
Other	0	0	***	***	***	***
Unprocessed	4,566	3,705	7,742	11,441	17,278	16,313

Table 6.32: English sole: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	19,507	9,157	9,315	4,164	6,732	2,111
Frozen	4,267	3,519	1,882	1,736	1,157	474
Other	0	0	0	0	0	0
Unprocessed	1,258	1,876	508	1,009	483	1,059

Table 6.33: Petrale sole: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	217,231	62,906	73,773	18,579	72,102	13,121
Frozen	27,533	8,982	12,135	4,044	10,840	2,589
Other	0	0	0	0	***	***
Unprocessed	67,598	43,704	27,149	14,503	32,592	15,179

Table 6.34: Rex sole: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	26,484	16,278	14,535	7,277	14,477	6,728
Frozen	17,324	11,539	16,475	12,989	8,049	4,949
Other	0	0	***	***	0	0
Unprocessed	2,218	3,149	1,101	2,086	868	1,722

Table 6.35: Arrowtooth flounder: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	—	—	—	—	24,597	21,934
Frozen	—	—	—	—	25,619	***
Other	—	—	—	—	0	0
Unprocessed	—	—	—	—	***	***

Table 6.36: Lingcod: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	14,853	3,952	11,921	2,843	22,968	5,770
Frozen	2,594	436	2,031	1,000	5,843	1,701
Other	***	***	***	***	***	***
Unprocessed	4,839	3,962	3,086	1,896	3,896	1,509

Table 6.37: Rockfish: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	132,269	48,941	103,388	38,795	91,869	32,642
Frozen	32,580	16,405	16,165	8,671	18,250	9,955
Other	***	***	0	0	9,254	5,000
Unprocessed	24,964	21,543	25,575	24,276	46,347	38,480

Table 6.38: Sanddab: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	—	—	—	—	1,360	295
Frozen	—	—	—	—	6,664	2,093
Other	—	—	—	—	***	***
Unprocessed	—	—	—	—	5,540	5,562

Table 6.39: Sharks, skates and rays: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	9,493	8,346	2,321	1,403	2,734	1,132
Frozen	66,101	49,111	67,629	36,398	58,172	28,053
Other	***	***	0	0	***	***
Unprocessed	1,819	***	10,248	18,657	15,556	21,874

Table 6.40: Crab: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	1,665,777	306,849	1,999,098	456,374	1,037,536	183,065
Frozen	1,459,279	281,402	2,150,143	497,630	1,897,842	331,260
Other	158,244	***	***	***	***	***
Unprocessed	41,229	18,527	42,451	18,975	150,468	57,576

Table 6.41: Shrimp: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	0	0	0	0	***	***
Fresh	236,909	147,791	202,158	127,791	110,349	35,701
Frozen	1,017,425	365,424	967,796	480,522	1,608,488	537,490
Other	0	0	***	***	0	0
Unprocessed	***	***	***	***	108,322	120,864

Table 6.42: Coastal pelagics: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	—	—	—	—	0	0
Fresh	30,494	92,315	***	3,064	38,382	***
Frozen	266,331	649,683	191,935	525,609	353,667	1,081,859
Other	260,393	1,104,195	259,208	1,106,374	***	***
Unprocessed	***	***	***	***	2,253	876

Table 6.43: Salmon: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	310,463	88,608	475,866	106,242	449,709	105,443
Frozen	***	***	267,732	93,375	284,042	132,530
Other	***	***	***	***	0	0
Smoked	***	***	***	***	***	***
Unprocessed	38,073	10,926	65,210	16,118	111,469	48,923

Table 6.44: Tuna: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	27,511	8,226	25,738	6,470	20,202	4,509
Frozen	596,005	429,180	548,148	326,691	490,209	186,598
Other	***	***	***	***	***	***
Unprocessed	11,986	***	18,491	11,669	138,787	64,707

Table 6.45: California halibut: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	33,350	3,890	12,825	1,244
Frozen	***	***	***	***	***	***
Other	0	0	***	***	***	***
Unprocessed	21,930	4,236	***	***	26,109	4,466

Table 6.46: Pacific halibut: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	132,075	23,507	51,883	5,450	43,971	4,597
Frozen	12,968	1,955	6,777	767	5,166	518
Other	***	***	***	***	***	***
Unprocessed	***	***	***	***	24,505	3,206

Table 6.47: Pacific herring: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	***	***
Other	0	0	0	0	0	0
Unprocessed	0	0	0	0	***	***

Table 6.48: Sturgeon: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	0	0	0	0	0	0
Fresh	20,164	4,337	43,037	8,722	23,558	4,123
Frozen	***	***	3,979	936	***	***
Other	***	***	0	0	0	0
Unprocessed	0	0	***	***	***	***

Table 6.49: Echinoderms: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	***	***	***
Frozen	0	0	0	0	0	0
Other	0	0	0	0	***	***
Unprocessed	***	***	***	***	***	***

Table 6.50: Nonspecies specific: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Bait	—	—	—	—	***	***
Fish oil	***	***	***	***	***	***
Fishmeal	***	***	***	***	***	***
Other	***	***	***	***	***	***

Table 6.51: Other species: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Other	249,122	518,013	254,579	753,838	144,615	259,271

Table 6.52: Shellfish: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	1,054	***	***
Frozen	***	4,661	***	4,474	***	***
Other	0	0	0	0	0	0
Unprocessed	329,658	96,117	259,240	73,452	196,681	61,892

Table 6.53: Squid: Average production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	***	***	***
Frozen	21,317	12,685	31,782	30,147	19,102	10,602
Other	0	0	***	***	0	0
Unprocessed	***	***	***	***	***	***

6.2.3 Median value and weight of fish production by product type and species

Table 6.54: Pacific whiting: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fillet	0	0	0	0	0	0
Frozen	***	***	0	0	0	0
Headed-and-gutted	0	0	0	0	0	0
Other	***	0	***	***	0	0
Roe	0	0	0	0	0	0
Surimi	***	***	***	***	***	***
Unprocessed	***	***	0	0	***	0

Table 6.55: Dover sole: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	677	1,882	0	0	0	0
Frozen	0	0	0	0	0	0
Other	***	***	***	***	***	***
Unprocessed	***	***	0	0	0	0

Table 6.56: Sablefish: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	62,251	9,741	0	0
Frozen	0	0	13,127	5,402	0	0
Other	***	***	***	***	***	***
Unprocessed	0	0	0	0	0	0

Table 6.57: Thornyheads: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	***	***
Frozen	0	0	0	0	0	0
Other	0	0	***	***	***	***
Unprocessed	0	0	0	0	0	0

Table 6.58: English sole: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	0	0
Other	0	0	0	0	0	0
Unprocessed	0	0	0	0	0	0

Table 6.59: Petrale sole: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	140	40	4,000	690	0	0
Frozen	0	0	0	0	0	0
Other	0	0	0	0	***	***
Unprocessed	0	0	0	0	0	0

Table 6.60: Rex sole: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	0	0
Other	0	0	***	***	0	0
Unprocessed	0	0	0	0	0	0

Table 6.61: Arrowtooth flounder: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	—	—	—	—	0	0
Frozen	—	—	—	—	0	***
Other	—	—	—	—	0	0
Unprocessed	—	—	—	—	***	***

Table 6.62: Lingcod: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	49	22	30	93	0	0
Frozen	0	0	0	0	0	0
Other	***	***	***	***	***	***
Unprocessed	0	0	0	0	0	0

Table 6.63: Rockfish: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	10,806	14,519	6,145	10,345	0	0
Frozen	0	0	0	0	0	0
Other	***	***	0	0	0	0
Unprocessed	0	0	0	0	860	871

Table 6.64: Sanddab: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	—	—	—	—	0	0
Frozen	—	—	—	—	0	0
Other	—	—	—	—	***	***
Unprocessed	—	—	—	—	0	0

Table 6.65: Sharks, skates and rays: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	0	0
Other	***	***	0	0	***	***
Unprocessed	0	***	0	0	0	0

Table 6.66: Crab: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	12,452	4,151	620,646	227,070	0	0
Frozen	893,946	206,832	333,494	41,328	0	0
Other	0	***	***	***	***	***
Unprocessed	0	0	0	0	0	0

Table 6.67: Shrimp: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	0	0	0	0	***	***
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	0	0
Other	0	0	***	***	0	0
Unprocessed	***	***	***	***	0	0

Table 6.68: Coastal pelagics: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	—	—	—	—	0	0
Fresh	0	0	***	0	0	***
Frozen	0	0	0	0	0	0
Other	0	0	0	0	***	***
Unprocessed	***	***	***	***	0	0

Table 6.69: Salmon: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	0	0	11,957	1,437	0	0
Frozen	***	***	0	0	0	0
Other	***	***	***	***	0	0
Smoked	***	***	***	***	***	***
Unprocessed	0	0	0	0	0	0

Table 6.70: Tuna: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	***	***	***	***	***	***
Fresh	0	0	0	0	0	0
Frozen	0	0	11,541	6,358	0	0
Other	***	***	***	***	***	***
Unprocessed	0	***	0	0	0	0

Table 6.71: California halibut: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	0	0	0	0
Frozen	***	***	***	***	***	***
Other	0	0	***	***	***	***
Unprocessed	0	0	***	***	0	0

Table 6.72: Pacific halibut: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	0	0
Other	***	***	***	***	***	***
Unprocessed	***	***	***	***	0	0

Table 6.73: Pacific herring: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	0	0	0	0	0	0
Frozen	0	0	0	0	***	***
Other	0	0	0	0	0	0
Unprocessed	0	0	0	0	***	***

Table 6.74: Sturgeon: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Canned	0	0	0	0	0	0
Fresh	0	0	0	0	0	0
Frozen	***	***	0	0	***	***
Other	***	***	0	0	0	0
Unprocessed	0	0	***	***	***	***

Table 6.75: Echinoderms: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	***	***	***
Frozen	0	0	0	0	0	0
Other	0	0	0	0	***	***
Unprocessed	***	***	***	***	***	***

Table 6.76: Nonspecies specific: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Bait	—	—	—	—	***	***
Fish oil	***	***	***	***	***	***
Fishmeal	***	***	***	***	***	***
Other	***	***	***	***	***	***

Table 6.77: Other species: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Other	9	34	0	0	0	0

Table 6.78: Shellfish: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	0	***	***
Frozen	***	0	***	0	***	***
Other	0	0	0	0	0	0
Unprocessed	0	0	0	0	0	0

Table 6.79: Squid: Median production weight and value by product type (2009 N=23, 2010 N=25, 2011 N=33).

Product	2009		2010		2011	
	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)	Value (\$)	Weight (lbs.)
Fresh	***	***	***	***	***	***
Frozen	0	0	0	0	0	0
Other	0	0	***	***	0	0
Unprocessed	***	***	***	***	***	***

7 Net Revenue and Economic Profit

Net returns from operating a first receiver or 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.

Labor costs for the net revenue measure are the total payments to the production workers and all other employees.

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 capital², 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 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.

¹Whitmarsh 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

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

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.

7.1 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*. 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 the Section 4, there are a variety of costs that are 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 attempt 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 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 for the 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

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

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

total cost net revenue only when averaged over many years and across facilities because relatively large capital costs occur periodically.

7.2 Net revenue for West Coast activities

Average net revenue is calculated for all companies that processed fish in 2009 and 2010 and all companies that submitted EDC forms for 2011 onward.

West Coast 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 limited entry permits, quota shares, or quota pounds.

Variable cost net revenue = West Coast revenue – West Coast variable costs

Total cost net revenue = West Coast revenue – (West Coast variable costs + West Coast fixed costs)

Table 7.1: Revenue, costs, and net revenue (2009 N=23, 2010 N=25, 2011 N=33).

Expense	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Revenue	\$12,540,529	\$11,465,886	\$12,556,129	\$7,310,501	\$12,448,569	\$4,861,119
(Variable costs)	\$10,390,181	\$7,625,324	\$11,490,956	\$8,404,064	\$10,780,208	\$4,045,492
Variable cost net revenue	\$2,150,348	\$312,043	\$1,065,173	\$179,012	\$1,669,588	\$489,180
(Fixed costs)	\$1,577,664	\$582,650	\$1,586,610	\$362,400	\$715,469	\$209,120
Total cost net revenue	\$572,680	-\$57,462	-\$521,484	-\$91,139	\$951,225	\$73,697

7.3 Total cost net revenue rates

The total cost net revenue calculated above in Section 7.2 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 4.2.6 and 6.2). Additionally, the same rates are calculated for variable cost net revenue and the components that are used to calculate the two.

Table 7.2: Revenue, costs, and total and variable cost net revenue by pounds produced and pounds of fish purchased (2009 N=23, 2010 N=25, 2011 N=33).

Expense	2009		2010		2011	
	Mean	Median	Mean	Median	Mean	Median
Revenue per production pounds	\$2.156	\$1.668	\$2.290	\$2.266	\$3.369	\$2.119
Revenue per purchase pounds	\$1.630	\$1.189	\$1.701	\$1.269	\$2.234	\$1.650
Variable cost per production pounds	\$1.852	\$1.735	\$2.125	\$2.142	\$2.716	\$1.720
Variable cost per purchase pounds	\$1.414	\$0.980	\$1.550	\$1.235	\$1.959	\$1.602
Variable cost net revenue per production pounds	\$0.304	\$0.172	\$0.165	\$0.053	\$0.653	\$0.147
Variable cost net revenue per purchase pounds	\$0.216	\$0.161	\$0.151	\$0.033	\$0.376	\$0.129
Fixed cost per production pounds	\$0.205	\$0.111	\$0.373	\$0.123	\$0.261	\$0.089
Fixed cost per purchase pounds	\$0.168	\$0.076	\$0.331	\$0.071	\$0.262	\$0.068
Total cost net revenue per production pounds	\$0.028	-\$0.018	-\$0.286	-\$0.083	\$0.367	\$0.042
Total cost net revenue per purchase pounds	-\$0.024	-\$0.014	-\$0.257	-\$0.083	\$0.090	\$0.033

8 Cost Per Pound of Fish Purchases

The average cost per pound of fish purchases by species (or species group) was calculated in two ways. First, a sector-wide average fish cost per pound by source is calculated (Section 8.1). This represents the cost per pound by species for all fish that are delivered and purchased shoreside. The second is the mean (and median) of the cost per pound of fish across companies (Section 8.2). These means (and medians) represent the cost of fish per pound for an average company on the West Coast, whereas the industry-wide cost per pound of fish represents the average cost per pound of fish coast-wide.

8.1 Sector-wide fish cost per pound by source

The industry-wide cost C per pound of fish inputs $WT^{fishinputs}$ by species (or species group) 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 N is the total number of companies that submitted EDC data. The industry-wide cost per pound of fish by species or species group and source of fish is calculated for each survey year.

As described in Section 4.2.6, in the following tables, LE Trawl represents fish acquired directly from a vessel registered to a Limited Entry (LE) permit with a trawl endorsement and caught with either trawl or fixed gear. LE Fixed Gear Vessels sources are those vessels without a limited entry trawl with a fixed gear endorsement. This does not include fish caught with a fixed gear on a LE permit with a trawl endorsement. Other vessels are those without either a LE Trawl or fixed gear endorsement, including open access fisheries. 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.

Table 8.1: Sector-wide cost per pound: whiting, dover sole, thornyheads, sablefish.

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
Dover sole: Fixed Gear	0.40	—	—
Dover sole: LE Trawl	0.35	0.32	0.43
Dover sole: Non-vessel	—	—	0.52
Dover sole: Other	—	0.38	—
Pacific whiting: LE Trawl	0.08	0.08	0.11
Pacific whiting: Other	—	0.09	—
Sablefish: Fixed Gear	3.04	3.18	—
Sablefish: LE Fixed Gear	—	—	3.91
Sablefish: LE Trawl	2.09	2.19	2.98
Sablefish: Non-vessel	—	—	2.56
Sablefish: Other	2.40	2.11	—
Sablefish: Other Vessel	—	—	5.29
Thornyheads: Fixed Gear	0.78	—	—
Thornyheads: LE Fixed Gear	—	—	1.04
Thornyheads: LE Trawl	0.51	0.54	0.62

Table 8.2: Sector-wide cost per pound: other groundfish.

Species: Source	2009 N=23	2010 N=25	2011 N=33
	\$ per lb.	\$ per lb.	\$ per lb.
Arrowtooth flounder: LE Trawl	—	—	0.30
Lingcod: Fixed Gear	0.82	0.82	—
Lingcod: LE Fixed Gear	—	—	0.89
Lingcod: LE Trawl	0.65	0.69	0.78
Lingcod: Non-vessel	—	—	0.99
Lingcod: Other	—	1.17	—
Lingcod: Other Vessel	—	—	0.98
Rockfish: Fixed Gear	0.64	0.81	—
Rockfish: LE Fixed Gear	—	—	0.98
Rockfish: LE Trawl	0.69	0.52	0.54
Rockfish: Non-vessel	—	—	0.87
Rockfish: Other	—	0.73	—
Rockfish: Other Vessel	—	—	0.93
Sanddab: LE Trawl	—	—	0.58
Sanddab: Non-vessel	—	—	0.89
Sharks, skates and rays: Fixed Gear	0.22	0.27	—
Sharks, skates and rays: LE Fixed Gear	—	—	1.47
Sharks, skates and rays: LE Trawl	0.19	0.26	0.31
Sharks, skates and rays: Other	—	0.57	—
Sharks, skates and rays: Other Vessel	—	—	0.48

Table 8.3: Sector-wide cost per pound: other groundfish (cont.).

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
English sole: LE Trawl	0.31	0.32	0.47
Petrale sole: LE Trawl	0.80	1.15	1.44
Petrale sole: Non-vessel	—	—	1.77
Petrale sole: Other	1.27	1.69	—
Rex sole: LE Trawl	0.34	0.33	0.37
Rex sole: Non-vessel	—	—	1.05

Table 8.4: Sector-wide cost per pound: non-groundfish.

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
Coastal pelagics: All	0.11	0.11	—
Coastal pelagics: Non-vessel	—	—	1.47
Coastal pelagics: Vessel	—	—	0.12
Crab: All	2.03	2.00	—
Crab: Non-vessel	—	—	2.53
Crab: Vessel	—	—	2.41
Salmon: All	1.28	2.44	—
Salmon: Non-vessel	—	—	2.59
Salmon: Vessel	—	—	1.47
Shrimp: All	0.37	0.37	—
Shrimp: Non-vessel	—	—	0.82
Shrimp: Vessel	—	—	0.49
Tuna: All	1.05	1.23	—
Tuna: Vessel	—	—	1.99

Table 8.5: Sector-wide cost per pound: non-groundfish (cont.).

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
California halibut: All	4.82	4.62	—
California halibut: Non-vessel	—	—	5.81
California halibut: Vessel	—	—	4.65
Other species: All	0.21	0.26	—
Other species: Vessel	—	—	0.61
Pacific halibut: All	4.67	6.96	—
Pacific halibut: Non-vessel	—	—	9.44
Pacific halibut: Vessel	—	—	6.25
Shellfish: All	2.83	2.97	—
Shellfish: Non-vessel	—	—	2.59
Squid: All	0.96	0.75	—
Squid: Non-vessel	—	—	1.45
Sturgeon: Non-vessel	—	—	2.89
Sturgeon: Vessel	—	—	2.59

8.2 Mean fish purchase cost per pound by source

The mean cost C per pound of fish inputs $WT^{fishinputs}$ by species e and source of fish s

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

where N is the total number of companies that submitted EDC data. The mean cost per pound of fish by species and source of fish is calculated for each survey year.

Table 8.6: Mean fish cost per pound: whiting, dover sole, thornyheads, sablefish.

Species: Source	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
Dover sole: Fixed Gear	\$0.38	7	\$0.31	5	—	—
Dover sole: LE Fixed Gear	—	—	—	—	***	***
Dover sole: LE Trawl	\$0.50	16	\$0.30	15	\$0.42	15
Dover sole: Non-vessel	—	—	—	—	\$1.75	5
Dover sole: Other	\$1.20	4	\$1.12	4	—	—
Dover sole: Other Vessel	—	—	—	—	\$0.42	3
Pacific whiting: LE Fixed Gear	—	—	—	—	***	***
Pacific whiting: LE Trawl	\$0.07	12	\$0.08	12	\$0.11	10
Pacific whiting: Non-vessel	—	—	—	—	***	***
Pacific whiting: Other	\$0.11	4	\$0.13	4	—	—
Pacific whiting: Other Vessel	—	—	—	—	***	***
Sablefish: Fixed Gear	\$3.10	10	\$3.27	12	—	—
Sablefish: LE Fixed Gear	—	—	—	—	\$3.82	14
Sablefish: LE Trawl	\$1.82	16	\$1.96	17	\$2.25	18
Sablefish: Non-vessel	—	—	—	—	\$3.68	4
Sablefish: Other	\$6.16	4	\$3.12	5	—	—
Sablefish: Other Vessel	—	—	—	—	\$4.79	6
Thornyheads: Fixed Gear	\$0.77	6	\$0.89	9	—	—
Thornyheads: LE Fixed Gear	—	—	—	—	\$1.31	9
Thornyheads: LE Trawl	\$0.69	14	\$0.53	14	\$0.86	18
Thornyheads: Non-vessel	—	—	—	—	\$0.49	3
Thornyheads: Other	***	***	***	***	—	—
Thornyheads: Other Vessel	—	—	—	—	\$0.74	3

Table 8.7: Mean fish cost per pound: other groundfish.

Species: Source	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
Arrowtooth flounder: LE Fixed Gear	—	—	—	—	\$0.12	4
Arrowtooth flounder: LE Trawl	—	—	—	—	\$0.16	11
Arrowtooth flounder: Non-vessel	—	—	—	—	***	***
Arrowtooth flounder: Other Vessel	—	—	—	—	\$0.11	3
Lingcod: Fixed Gear	\$0.70	8	\$0.79	7	—	—
Lingcod: LE Fixed Gear	—	—	—	—	\$1.07	6
Lingcod: LE Trawl	\$0.72	18	\$0.81	17	\$0.82	19
Lingcod: Non-vessel	—	—	—	—	\$1.99	6
Lingcod: Other	\$3.19	3	\$2.07	5	—	—
Lingcod: Other Vessel	—	—	—	—	\$1.16	4
Rockfish: Fixed Gear	\$0.63	7	\$0.83	10	—	—
Rockfish: LE Fixed Gear	—	—	—	—	\$0.98	10
Rockfish: LE Trawl	\$0.56	21	\$0.56	17	\$0.64	22
Rockfish: Non-vessel	—	—	—	—	\$1.19	6
Rockfish: Other	\$1.66	5	\$1.36	5	—	—
Rockfish: Other Vessel	—	—	—	—	\$0.84	5
Sanddab: LE Fixed Gear	—	—	—	—	***	***
Sanddab: LE Trawl	—	—	—	—	\$0.61	9
Sanddab: Non-vessel	—	—	—	—	\$2.05	4
Sanddab: Other Vessel	—	—	—	—	***	***

Table 8.8: Mean fish cost per pound: other groundfish (cont.).

Species: Source	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
English sole: Fixed Gear	***	***	***	***	—	—
English sole: LE Trawl	\$0.65	13	\$0.37	13	\$0.46	12
English sole: Non-vessel	—	—	—	—	\$1.78	5
English sole: Other	\$1.51	3	\$1.15	4	—	—
English sole: Other Vessel	—	—	—	—	***	***
Petrале sole: Fixed Gear	\$1.07	4	\$1.24	5	—	—
Petrале sole: LE Fixed Gear	—	—	—	—	\$1.35	3
Petrале sole: LE Trawl	\$1.04	14	\$1.11	16	\$1.44	14
Petrале sole: Non-vessel	—	—	—	—	\$3.01	5
Petrале sole: Other	\$2.90	4	\$2.86	4	—	—
Petrале sole: Other Vessel	—	—	—	—	\$1.41	3
Rex sole: Fixed Gear	***	***	***	***	—	—
Rex sole: LE Trawl	\$0.38	16	\$0.37	14	\$0.43	15
Rex sole: Non-vessel	—	—	—	—	\$1.36	4
Rex sole: Other	\$3.29	3	\$2.07	3	—	—
Rex sole: Other Vessel	—	—	—	—	\$0.58	3
Sharks, skates and rays: Fixed Gear	\$0.16	7	\$0.23	4	—	—
Sharks, skates and rays: LE Fixed Gear	—	—	—	—	\$0.92	5
Sharks, skates and rays: LE Trawl	\$0.22	15	\$0.27	13	\$0.29	15
Sharks, skates and rays: Non-vessel	—	—	—	—	\$1.23	4
Sharks, skates and rays: Other	\$2.16	3	\$1.32	4	—	—
Sharks, skates and rays: Other Vessel	—	—	—	—	\$0.89	6

Table 8.9: Mean fish cost per pound: non-groundfish.

Species: Source	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
Coastal pelagics: All	\$0.68	9	\$0.83	8	—	—
Coastal pelagics: Non-vessel	—	—	—	—	\$1.21	6
Coastal pelagics: Vessel	—	—	—	—	\$0.43	12
Crab: All	\$2.57	16	\$2.31	20	—	—
Crab: Non-vessel	—	—	—	—	\$4.07	8
Crab: Vessel	—	—	—	—	\$2.51	22
Salmon: All	\$3.05	10	\$4.10	15	—	—
Salmon: Non-vessel	—	—	—	—	\$3.63	8
Salmon: Vessel	—	—	—	—	\$4.61	19
Shrimp: All	\$1.45	10	\$1.83	12	—	—
Shrimp: Non-vessel	—	—	—	—	\$3.66	6
Shrimp: Vessel	—	—	—	—	\$1.64	9
Tuna: All	\$1.41	12	\$1.53	16	—	—
Tuna: Non-vessel	—	—	—	—	\$3.41	5
Tuna: Vessel	—	—	—	—	\$1.94	18

Table 8.10: Mean fish cost per pound: non-groundfish (cont.).

Species: Source	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
California halibut: All	\$4.95	5	\$4.06	9	—	—
California halibut: Non-vessel	—	—	—	—	\$4.85	4
California halibut: Vessel	—	—	—	—	\$4.83	8
Other species: All	\$0.57	16	\$0.50	16	—	—
Other species: Non-vessel	—	—	—	—	\$0.51	3
Other species: Vessel	—	—	—	—	\$0.71	18
Pacific halibut: All	\$4.00	7	\$5.14	9	—	—
Pacific halibut: Non-vessel	—	—	—	—	\$7.84	4
Pacific halibut: Vessel	—	—	—	—	\$6.13	8
Shellfish: All	\$2.56	4	\$2.99	5	—	—
Shellfish: Non-vessel	—	—	—	—	\$2.87	6
Squid: All	\$0.67	7	\$0.59	10	—	—
Squid: Non-vessel	—	—	—	—	\$1.43	4
Squid: Vessel	—	—	—	—	\$0.20	4
Sturgeon: Non-vessel	—	—	—	—	\$4.29	4
Sturgeon: Vessel	—	—	—	—	\$2.52	4

9 Revenue Per Pound from Fish Products Produced

Similarly to calculations of average cost per pound of fish, the average revenue per pound of fish production by species was calculated in two ways. First, a sector-wide average fish revenue per pound by product type is calculated (Section 9.1). This represents the revenue per pound by species for all fish that are delivered shoreside. The second is the mean (and median of the revenue) per pound of fish across companies (Section 9.2). These means (and medians) represent the revenue of fish per pound for an average company on the West Coast, whereas the industry-wide revenue per pound of fish represents the average revenue per pound of fish coast-wide.

9.1 Sector-wide revenue per pound by product

The industry-wide revenue R per pound of fish outputs $WT^{fishoutputs}$ by species e and product type o

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

where N is the total number of companies that submitted EDC data. The industry-wide revenue per pound of fish by species or species group and product is calculated for each survey year.

Table 9.1: Sector-wide revenue per pound: whiting, dover sole, thornyheads, sablefish.

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
Dover sole: Fresh	2.24	2.49	3.33
Dover sole: Frozen	2.15	1.57	2.66
Dover sole: Unprocessed	—	0.46	0.29
Pacific whiting: Fillet	—	1.17	—
Pacific whiting: Frozen	—	0.33	0.29
Pacific whiting: Headed-and-gutted	0.56	0.57	0.60
Pacific whiting: Other	—	—	0.51
Pacific whiting: Unprocessed	—	0.11	—
Sablefish: Fresh	4.07	5.19	3.19
Sablefish: Frozen	4.91	5.38	7.16
Sablefish: Unprocessed	2.78	2.87	3.54
Thornyheads: Fresh	1.20	1.16	—
Thornyheads: Frozen	2.35	2.22	3.41
Thornyheads: Unprocessed	1.23	0.68	1.06

Table 9.2: Sector-wide revenue per pound: other groundfish.

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
Arrowtooth flounder: Fresh	—	—	1.12
Lingcod: Fresh	3.76	4.19	3.98
Lingcod: Frozen	5.95	2.03	3.43
Lingcod: Unprocessed	1.22	1.63	2.58
Rockfish: Fresh	2.70	2.66	2.81
Rockfish: Frozen	1.99	1.86	1.83
Rockfish: Other	—	—	1.85
Rockfish: Unprocessed	1.16	1.05	1.20
Sanddab: Fresh	—	—	4.61
Sanddab: Frozen	—	—	3.18
Sanddab: Unprocessed	—	—	1.00
Sharks, skates and rays: Fresh	1.14	1.65	2.41
Sharks, skates and rays: Frozen	1.35	1.86	2.07
Sharks, skates and rays: Unprocessed	—	0.55	0.71

Table 9.3: Sector-wide revenue per pound: other groundfish (cont.).

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
English sole: Fresh	2.13	2.24	3.19
English sole: Frozen	1.21	1.08	2.44
English sole: Unprocessed	0.67	0.50	0.46
Petrале sole: Fresh	3.45	3.97	5.50
Petrале sole: Frozen	3.07	3.00	4.19
Petrале sole: Unprocessed	1.55	1.87	2.15
Rex sole: Fresh	1.63	2.00	2.15
Rex sole: Frozen	1.50	1.27	1.63
Rex sole: Unprocessed	0.70	0.53	0.50

Table 9.4: Sector-wide revenue per pound: non-groundfish.

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
Coastal pelagics: Frozen	0.41	0.37	0.33
Coastal pelagics: Unprocessed	—	—	2.57
Crab: Fresh	5.43	4.38	5.67
Crab: Frozen	5.19	4.32	5.73
Crab: Unprocessed	2.23	2.24	2.61
Salmon: Fresh	3.50	4.48	4.26
Salmon: Frozen	—	2.87	2.14
Salmon: Unprocessed	—	4.05	2.28
Shrimp: Fresh	1.60	1.58	3.09
Shrimp: Frozen	2.78	2.01	2.99
Shrimp: Unprocessed	—	—	0.90
Tuna: Fresh	3.34	3.98	4.48
Tuna: Frozen	1.39	1.68	2.63
Tuna: Unprocessed	—	1.58	2.14

Table 9.5: Sector-wide revenue per pound: non-groundfish (cont.).

Species: Source	2009 N=23 \$ per lb.	2010 N=25 \$ per lb.	2011 N=33 \$ per lb.
California halibut: Fresh	—	8.57	10.31
California halibut: Unprocessed	5.18	—	5.85
Other species: Other	0.48	0.34	0.56
Pacific halibut: Fresh	5.62	9.52	9.57
Pacific halibut: Frozen	6.63	8.83	9.96
Pacific halibut: Unprocessed	—	—	7.64
Shellfish: Unprocessed	—	—	3.18
Squid: Frozen	1.68	1.05	1.80
Sturgeon: Fresh	4.65	4.93	5.71

9.2 Mean production revenue per pound by product type

The mean revenue R per pound of fish production by species e and product type o is

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

where N is the total number of companies that submitted EDC data, $WT^{fishoutputs}$ is the weight of fish outputs. The mean revenue per pound of fish by species and source of fish is calculated for each survey year.

Table 9.6: Mean revenue per pound: whiting, dover sole, thornyheads, sablefish.

Species: Product	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
Dover sole: Fresh	\$2.38	12	\$2.45	12	\$3.29	11
Dover sole: Frozen	\$2.98	10	\$3.61	11	\$2.58	10
Dover sole: Other	***	***	***	***	***	***
Dover sole: Unprocessed	\$1.31	7	\$0.72	9	\$0.95	9
Pacific whiting: Fillet	\$1.18	3	\$0.98	4	\$0.70	3
Pacific whiting: Frozen	***	***	\$0.26	4	\$0.31	6
Pacific whiting: Headed-and-gutted	\$0.61	9	\$0.58	9	\$0.62	8
Pacific whiting: Other	\$0.21	3	***	***	\$0.43	5
Pacific whiting: Surimi	***	***	***	***	***	***
Pacific whiting: Unprocessed	***	***	\$0.10	4	***	***
Sablefish: Fresh	\$4.83	11	\$5.30	14	\$5.10	12
Sablefish: Frozen	\$4.88	11	\$5.05	13	\$6.80	12
Sablefish: Other	***	***	***	***	***	***
Sablefish: Unprocessed	\$2.37	4	\$2.49	5	\$4.74	13
Thornyheads: Fresh	\$1.45	5	\$1.09	7	\$1.94	3
Thornyheads: Frozen	\$4.52	7	\$2.25	7	\$2.94	8
Thornyheads: Other	—	—	***	***	***	***
Thornyheads: Unprocessed	\$1.63	4	\$0.96	5	\$1.69	11

Table 9.7: Mean revenue per pound: other groundfish.

Species: Product	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
Arrowtooth flounder: Fresh	—	—	—	—	\$0.91	8
Arrowtooth flounder: Frozen	—	—	—	—	\$0.89	7
Arrowtooth flounder: Unprocessed	—	—	—	—	***	***
Lingcod: Fresh	\$3.39	14	\$2.84	14	\$3.97	8
Lingcod: Frozen	\$7.31	5	\$2.37	5	\$4.84	6
Lingcod: Other	***	***	***	***	\$3.02	3
Lingcod: Unprocessed	\$8.17	8	\$2.06	8	\$2.29	12
Rockfish: Fresh	\$2.56	17	\$2.29	16	\$2.81	12
Rockfish: Frozen	\$2.53	8	\$2.34	8	\$2.80	8
Rockfish: Other	***	***	—	—	\$2.83	4
Rockfish: Unprocessed	\$1.12	9	\$1.09	9	\$1.33	18
Sanddab: Fresh	—	—	—	—	\$3.26	5
Sanddab: Frozen	—	—	—	—	\$4.82	7
Sanddab: Other	—	—	—	—	***	***
Sanddab: Unprocessed	—	—	—	—	\$1.05	7
Sharks, skates and rays: Fresh	\$1.76	9	\$1.48	10	\$2.23	7
Sharks, skates and rays: Frozen	\$1.51	8	\$1.76	6	\$2.34	8
Sharks, skates and rays: Other	***	***	—	—	***	***
Sharks, skates and rays: Unprocessed	\$0.83	4	\$1.41	6	\$0.83	9

Table 9.8: Mean revenue per pound: other groundfish (cont.).

Species: Product	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
English sole: Fresh	\$2.63	11	\$2.72	11	\$3.20	9
English sole: Frozen	\$1.73	6	\$1.69	4	\$2.65	5
English sole: Unprocessed	\$0.67	5	\$0.92	7	\$1.10	8
Petrале sole: Fresh	\$4.22	12	\$4.59	15	\$5.91	11
Petrале sole: Frozen	\$2.67	7	\$3.02	8	\$3.96	6
Petrале sole: Other	—	—	—	—	***	***
Petrале sole: Unprocessed	\$1.81	9	\$2.32	8	\$2.68	14
Rex sole: Fresh	\$1.78	11	\$2.31	9	\$2.74	9
Rex sole: Frozen	\$1.54	7	\$1.39	6	\$1.63	7
Rex sole: Other	—	—	***	***	—	—
Rex sole: Unprocessed	\$0.79	8	\$0.70	8	\$0.70	10

Table 9.9: Mean revenue per pound: non-groundfish.

Species: Product	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
Coastal pelagics: Fresh	***	***	***	***	***	***
Coastal pelagics: Frozen	\$1.15	7	\$0.98	7	\$0.99	10
Coastal pelagics: Other	\$0.23	3	\$0.23	3	***	***
Coastal pelagics: Unprocessed	***	***	***	***	\$1.71	4
Crab: Canned	***	***	***	***	***	***
Crab: Fresh	\$7.65	14	\$3.63	18	\$5.53	15
Crab: Frozen	\$5.61	14	\$4.56	16	\$6.23	16
Crab: Other	\$7.86	3	***	***	***	***
Crab: Unprocessed	\$4.15	5	\$3.00	4	\$4.36	10
Salmon: Canned	***	***	***	***	***	***
Salmon: Fresh	\$4.86	8	\$5.15	13	\$6.59	13
Salmon: Frozen	\$3.48	6	\$3.72	9	\$3.79	12
Salmon: Other	***	***	***	***	—	—
Salmon: Smoked	***	***	***	***	***	***
Salmon: Unprocessed	\$4.26	3	\$4.89	5	\$5.07	10
Shrimp: Canned	—	—	—	—	***	***
Shrimp: Fresh	\$2.96	8	\$3.11	8	\$3.09	6
Shrimp: Frozen	\$3.76	8	\$3.37	10	\$4.00	10
Shrimp: Other	—	—	***	***	—	—
Shrimp: Unprocessed	***	***	***	***	\$6.38	4
Tuna: Canned	***	***	***	***	***	***
Tuna: Fresh	\$2.99	5	\$3.29	9	\$6.07	4
Tuna: Frozen	\$1.80	10	\$1.92	14	\$2.65	13
Tuna: Other	***	***	***	***	***	***
Tuna: Unprocessed	\$1.36	3	\$2.50	4	\$2.83	12

Table 9.10: Mean revenue per pound: non-groundfish (cont.).

Species: Product	2009		2010		2011	
	Mean	N	Mean	N	Mean	N
California halibut: Fresh	\$8.25	3	\$8.32	6	\$9.24	5
California halibut: Frozen	***	***	***	***	***	***
California halibut: Other	—	—	***	***	***	***
California halibut: Unprocessed	\$5.60	4	\$4.66	4	\$5.60	6
Other species: Other	\$1.63	12	\$1.31	12	\$1.72	15
Pacific halibut: Fresh	\$5.47	6	\$6.60	6	\$9.79	8
Pacific halibut: Frozen	\$5.94	4	\$8.49	4	\$11.26	4
Pacific halibut: Other	***	***	***	***	***	***
Pacific halibut: Unprocessed	***	***	***	***	\$8.14	4
Shellfish: Fresh	***	***	\$8.51	3	\$9.19	3
Shellfish: Frozen	\$7.03	3	\$4.84	3	***	***
Shellfish: Unprocessed	\$3.40	3	\$3.52	3	\$3.18	5
Squid: Fresh	***	***	***	***	***	***
Squid: Frozen	***	***	\$1.17	6	\$1.36	6
Squid: Other	—	—	***	***	—	—
Squid: Unprocessed	***	***	***	***	***	***
Sturgeon: Fresh	\$4.53	4	\$3.93	5	\$6.78	5
Sturgeon: Frozen	***	***	\$4.14	3	***	***
Sturgeon: Other	***	***	—	—	—	—
Sturgeon: Unprocessed	—	—	***	***	\$6.22	3

10 Product Recovery Rates

The industry average product recovery rate by species e is

$$\frac{\sum_{o=1}^O \sum_{n=1}^N WT_{n,e,o}^{fishoutputs}}{\sum_{s=1}^S \sum_{n=1}^N WT_{n,e,s}^{fishinputs}} \quad \forall e$$

where N is the total number of companies that submitted EDC data, O is the number of product types, and S is number of sources. The industry-wide average product recovery rate by species or species group is calculated for each survey year. The weight of fish purchased include fish received from trawl vessel, fixed gear vessel, other vessel, and non-vessel sources. Fish purchased and produced may include pre-product types, listed on the EDC form as "unprocessed".

10.1 Product recovery rate

10.1.1 Total production weight by species

Table 10.1: Total fish production weight by species.

Species	2009 N=23 Lbs.	2010 N=25 Lbs.	2011 N=33 Lbs.
Arrowtooth flounder	—	—	2,333,247
California halibut	***	89,012	196,182
Coastal pelagics	30,650,717	34,901,309	17,955,719
Crab	11,397,560	22,527,421	19,737,871
Dover sole	8,538,529	8,054,138	5,357,355
English sole	334,678	172,706	120,244
Lingcod	217,555	140,984	324,932
Other species	2,147,897	8,945,464	1,722,923
Pacific halibut	290,088	247,836	201,557
Pacific herring	—	—	***
Pacific whiting	77,578,048	49,111,709	141,650,247
Petrale sole	2,658,627	877,819	1,012,944
Rex sole	710,882	607,188	441,751
Rockfish	1,565,700	1,688,226	2,810,307
Sablefish	6,592,400	6,916,532	6,507,969
Salmon	4,448,602	5,036,853	8,846,451
Sanddab	—	—	267,947
Sharks, skates and rays	1,470,794	1,405,160	1,887,182
Shellfish	1,560,672	1,974,530	1,478,289
Shrimp	12,163,411	14,312,005	22,953,593
Squid	258,674	834,843	350,641
Sturgeon	—	—	139,629
Thornyheads	2,076,187	2,213,262	1,674,864
Tuna	7,398,717	8,654,280	5,074,268

10.1.2 Total fish purchase weight by species

As stated in the introduction to this report, respondents fill out the form according to their fiscal year, so pounds listed for each species here may not have been purchased during the calendar year indicated by the column header, and these values may not align directly to state-fish ticket data.

Table 10.2: Total fish purchase weight by species.

Species	2009 N=23 Lbs.	2010 N=25 Lbs.	2011 N=33 Lbs.
Arrowtooth flounder	—	—	4,942,838
California halibut	***	91,140	224,096
Coastal pelagics	37,300,545	41,421,370	18,396,801
Crab	17,435,282	34,716,081	33,488,224
Dover sole	25,794,081	23,264,151	18,436,452
English sole	794,569	494,108	319,769
Lingcod	344,880	226,867	634,735
Other species	4,576,433	10,396,070	2,450,006
Pacific halibut	295,770	272,579	224,997
Pacific herring	—	—	***
Pacific whiting	127,293,872	124,902,128	237,932,071
Petrale sole	4,401,828	1,617,873	1,886,642
Rex sole	1,243,837	1,057,863	976,410
Rockfish	3,460,904	3,909,868	5,293,956
Sablefish	9,781,874	9,202,426	8,287,258
Salmon	4,778,802	6,334,256	11,087,381
Sanddab	—	—	383,817
Sharks, skates and rays	3,053,443	3,221,047	3,244,572
Shellfish	1,560,672	1,977,295	1,516,323
Shrimp	32,533,718	43,162,157	65,550,301
Squid	345,198	895,466	361,404
Sturgeon	—	—	228,749
Thornyheads	5,254,460	4,514,852	3,451,274
Tuna	7,559,885	10,475,118	6,081,508

10.2 Industry average product recovery rates

Table 10.3: Average product recovery rate.

Species	2009 N=23	2010 N=25	2011 N=33
	Average	Average	Average
Arrowtooth flounder	—	—	0.47
California halibut	1.01	1.20	0.88
Coastal pelagics	0.89	0.88	0.99
Crab	0.77	0.67	0.59
Dover sole	0.33	0.35	0.29
English sole	0.42	0.35	0.38
Lingcod	0.63	0.68	0.51
Other species	1.12	1.14	1.75
Pacific halibut	1.24	0.91	0.93
Pacific whiting	0.61	0.39	0.60
Petrale sole	0.60	0.56	0.54
Rex sole	0.57	0.57	0.45
Rockfish	0.55	0.45	0.53
Sablefish	0.70	0.78	0.79
Salmon	0.93	0.82	0.81
Sanddab	—	—	0.70
Sharks, skates and rays	0.48	0.43	0.57
Shellfish	1.00	1.00	1.04
Shrimp	0.37	0.36	0.35
Squid	0.75	0.88	0.94
Sturgeon	—	—	0.67
Thornyheads	0.40	0.54	0.49
Tuna	1.20	0.83	0.92

11 Markup

The industry average markup by species e is

$$\frac{\sum_{o=1}^O \sum_{n=1}^N R_{n,e,o}}{\sum_{s=1}^S \sum_{n=1}^N C_{n,e,s}} \quad \forall e$$

where N is the total number of companies that submitted EDC data, O is the number of product types, and S is number of sources. The industry-wide average markup by species 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.

11.1 Revenue and costs used to calculate markup

11.1.1 Total fish production revenue by species

Table 11.1: Total fish production revenue by species.

Species	2009 N=23 Value	2010 N=25 Value	2011 N=33 Value
Arrowtooth flounder	—	—	\$1,702,537
California halibut	\$721,555	\$1,262,874	\$1,378,997
Coastal pelagics	\$12,896,703	\$11,719,297	\$13,014,790
Crab	\$77,290,802	\$106,290,143	\$105,541,331
Dover sole	\$17,628,416	\$16,360,918	\$13,965,453
Echinoderms	***	***	***
English sole	\$575,722	\$292,630	\$276,279
Lingcod	\$556,653	\$452,994	\$1,152,158
Other species	\$5,729,806	\$6,364,470	\$4,772,311
Pacific halibut	\$3,598,579	\$2,043,805	\$2,458,546
Pacific herring	\$0	\$0	***
Pacific whiting	\$46,650,415	\$33,100,501	\$71,134,044
Petrале sole	\$7,184,323	\$2,826,415	\$3,813,896
Rex sole	\$1,058,609	\$870,349	\$771,987
Rockfish	\$4,438,404	\$3,628,211	\$5,468,774
Sablefish	\$33,844,434	\$39,059,711	\$38,051,629
Salmon	\$12,952,484	\$20,823,765	\$28,336,749
Sanddab	—	—	\$462,266
Sharks, skates and rays	\$1,804,286	\$2,004,933	\$2,818,476
Shellfish	\$8,624,118	\$7,732,009	\$10,313,451
Shrimp	\$28,982,683	\$29,515,017	\$60,605,752
Squid	\$499,788	\$826,135	\$631,170
Sturgeon	\$567,571	\$1,176,551	\$1,013,383
Thornyheads	\$4,553,406	\$5,100,673	\$4,443,300
Tuna	\$14,690,905	\$14,898,677	\$21,509,951

11.1.2 Total fish purchase cost by species

Table 11.2: Total fish purchase cost by species.

Species	2009 N=23 Value	2010 N=25 Value	2011 N=33 Value
Arrowtooth flounder	—	—	\$1,335,768
California halibut	\$568,491	\$687,811	\$1,136,941
Coastal pelagics	\$5,376,267	\$5,297,512	\$5,063,974
Crab	\$38,959,169	\$72,652,739	\$73,056,370
Dover sole	\$8,857,408	\$7,404,177	\$7,001,794
Echinoderms	***	***	***
English sole	\$271,704	\$157,349	\$127,167
Lingcod	\$277,072	\$206,682	\$527,404
Other species	\$2,230,156	\$4,165,766	\$2,754,214
Pacific halibut	\$2,417,068	\$1,894,548	\$2,197,380
Pacific herring	\$0	***	***
Pacific whiting	\$12,748,568	\$9,117,094	\$24,842,072
Petrале sole	\$3,689,724	\$2,010,007	\$2,643,976
Rex sole	\$440,546	\$384,757	\$349,518
Rockfish	\$2,868,865	\$2,488,225	\$3,532,876
Sablefish	\$25,304,216	\$25,022,614	\$29,427,854
Salmon	\$6,169,633	\$16,260,063	\$20,645,467
Sanddab	—	—	\$204,042
Sharks, skates and rays	\$673,654	\$867,065	\$984,139
Shellfish	\$6,619,728	\$5,870,718	\$7,112,699
Shrimp	\$11,968,654	\$16,219,329	\$31,203,550
Squid	\$397,069	\$645,485	\$484,441
Sturgeon	—	—	\$743,941
Thornyheads	\$2,588,771	\$2,522,055	\$1,817,801
Tuna	\$9,040,515	\$12,849,193	\$16,231,141

11.2 Average industry markup

Table 11.3: Average industry markup table.

Species	2009 N=23	2010 N=25	2011 N=33
	Average	Average	Average
Arrowtooth flounder	—	—	1.27
California halibut	1.27	1.84	1.21
Coastal pelagics	2.40	2.21	2.57
Crab	1.98	1.46	1.44
Dover sole	1.99	2.21	1.99
English sole	2.12	1.86	2.17
Lingcod	2.01	2.19	2.18
Other species	2.57	1.53	1.73
Pacific halibut	1.49	1.08	1.12
Pacific whiting	3.66	3.63	2.86
Petrale sole	1.95	1.41	1.44
Rex sole	2.40	2.26	2.21
Rockfish	1.55	1.46	1.55
Sablefish	1.34	1.56	1.29
Salmon	2.10	1.28	1.37
Sanddab	—	—	2.27
Sharks, skates and rays	2.68	2.31	2.86
Shellfish	1.30	1.32	1.45
Shrimp	2.42	1.82	1.94
Squid	1.26	1.28	1.30
Sturgeon	—	—	1.36
Thornyheads	1.76	2.02	2.44
Tuna	1.63	1.16	1.33

Appendix A IO-PAC Model Tables

This appendix reports the EDC data for first receivers and shorebased processors that are used in the IO-PAC model¹. The average markup (Table A.3) for the IO-PAC model was calculated by dividing the total value of production (Table A.1) by the total cost of all fish put into production (Table A.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.

A.1 Total production revenue by IO-PAC species

¹Leonard, 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 A.1: Total value fish production by IO-PAC species.

Species	2009 N=23	2010 N=25	2011 N=33
	\$	\$	\$
CPS	13,396,491	12,545,432	13,645,960
Crab	77,290,802	106,290,143	105,541,331
Dover and thornyhead	22,181,823	21,461,591	18,408,753
Halibut	4,320,134	3,306,679	3,837,543
HMS	22,224,997	23,268,080	29,100,738
Other groundfish	19,543,517	14,435,068	18,420,208
Sablefish	33,844,434	39,059,711	38,051,629
Salmon	12,952,484	20,823,765	28,336,749
Shrimp	28,982,683	29,515,017	60,605,752
Whiting	46,650,415	33,100,501	71,134,044

A.2 Total fish purchase cost by IO-PAC species

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

Species	2009 N=23	2010 N=25	2011 N=33
	\$	\$	\$
CPS	5,773,335	5,942,997	5,548,416
Crab	38,959,169	72,652,739	73,056,370
Dover and thornyhead	11,446,179	9,926,232	8,819,595
Halibut	2,985,559	2,582,359	3,334,321
HMS	11,944,324	17,882,023	19,969,494
Other groundfish	9,778,066	9,412,786	11,474,964
Sablefish	25,304,216	25,022,614	29,427,854
Salmon	6,169,633	16,260,063	20,645,467
Shrimp	11,968,654	16,219,329	31,203,550
Whiting	12,748,568	9,117,094	24,842,072

A.3 Markup

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

Species	2009 N=23	2010 N=25	2011 N=33
	Average	Average	Average
CPS	2.32	2.11	2.46
Crab	1.98	1.46	1.44
Dover and thornyhead	1.94	2.16	2.09
Halibut	1.45	1.28	1.15
HMS	1.86	1.30	1.46
Other groundfish	2.00	1.53	1.61
Sablefish	1.34	1.56	1.29
Salmon	2.10	1.28	1.37
Shrimp	2.42	1.82	1.94
Whiting	3.66	3.63	2.86

A.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. In the tables below, the “N” in the table caption 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 1.5). The “N” listed next to the totals reported by row represents the number of non-zero, non-NA responses for that category.

Table A.4: Total Production Employee Hours.

Production Employee Hours	2009		2010		2011	
	Total	N	Total	N	Total	N
January	39,777.9	20	37,202.0	23	54,987.7	25
February	20,656.1	20	35,202.8	23	44,571.1	25
March	27,517.3	20	31,669.4	23	34,188.5	25
April	28,784.0	19	40,923.3	22	41,310.5	26
May	47,476.4	19	67,121.1	22	55,896.6	27
June	68,213.1	19	69,531.0	23	90,937.7	27
July	126,217.1	20	90,689.0	23	151,387.2	28
August	68,666.9	20	99,673.2	23	162,838.8	28
September	55,218.8	20	69,529.4	22	125,105.3	28
October	82,422.9	20	50,173.8	22	75,405.0	27
November	51,296.2	19	46,631.3	22	53,106.7	27
December	106,558.7	20	125,508.7	23	107,821.2	26

Table A.5: Total Number of Production Employees.

Number of Production Employees	2009		2010		2011	
	Total	N	Total	N	Total	N
January	1,495	20	1,765	23	1,866	25
February	1,212	20	1,471	23	1,613	25
March	1,233	20	1,340	23	1,156	25
April	1,243	19	1,411	22	1,241	26
May	1,462	19	1,977	22	1,334	27
June	2,195	19	2,138	23	2,074	27
July	2,730	20	2,436	23	3,129	28
August	2,059	20	2,750	23	2,980	28
September	2,011	20	2,059	22	2,708	28
October	1,905	20	1,840	22	1,976	27
November	1,552	19	1,711	22	1,559	27
December	2,881	20	2,560	23	2,451	26

Table A.6: Total Number and Hours of Non-Production Employees.

Non-Production Employees	2009		2010		2011	
	Total	N	Total	N	Total	N
Hours Worked	12,286.4	21	17,246.4	22	11,467.6	30
Number of employees	200.0	21	268.0	22	227.0	30

Table A.7: Total Employee Expenses.

Employment Expenses	2009		2010		2011	
	Total	N	Total	N	Total	N
Production workers	\$33,997,783	23	\$32,378,076	25	\$46,361,416	33
Non-production employees	\$9,018,992	23	\$10,395,436	25	\$12,089,595	33

Table A.8: Total Expenditures on Buildings and Equipment.

Capital Expenditures	2009		2010		2011	
	Total	N	Total	N	Total	N
Capitalized expenditures on buildings	\$6,162,592	14	\$6,661,913	13	\$3,335,907	10
Capitalized expenditures on new and used machinery and equipment	\$21,984,534	21	\$24,371,908	20	\$10,284,056	21
Expenses on processing equipment	\$490,838	15	\$558,311	17	\$627,342	20
Expenses on rental or lease of buildings, job-site trailers, and other structures	\$2,586,591	22	\$2,718,740	23	\$3,135,392	25
Expenses on repair and maintenance on facility buildings, machinery, and equipment	\$5,061,722	22	\$5,354,384	23	\$6,227,774	29

Table A.9: Total Utility Expenses.

Sum of Utilities Expenses	2009		2010		2011	
	Total	N	Total	N	Total	N
Electricity	\$3,706,575	22	\$4,010,386	23	\$4,515,316	29
Natural gas	\$1,137,666	12	\$1,047,859	12	\$344,627	11
Nitrogen gas	—	—	—	—	***	***
Propane gas	\$455,315	16	\$891,484	19	\$822,756	23
Water	\$1,535,981	22	\$1,987,467	23	\$2,410,777	26
Sewer, waste, and byproduct disposal	\$754,150	20	\$948,087	20	\$1,215,908	24

Table A.10: Total Other Expenses.

Sum of Other Expenses	2009		2010		2011	
	Total	N	Total	N	Total	N
Cleaning and custodial supplies	—	—	—	—	\$390,667	23
Freight costs for supplies	\$1,692,815	10	\$1,735,573	11	\$1,531,957	8
Insurance (property, product, and personal liability)	\$3,009,296	20	\$2,966,941	22	\$1,936,980	28
Licensing fees	—	—	—	—	\$293,419	29
Non-fish ingredients (additives)	\$716,795	10	\$676,366	11	\$1,483,764	12
Off-site product freezing and storage	\$3,203,129	17	\$3,804,195	18	\$6,058,569	16
Offloading	—	—	—	—	\$746,377	15
Packing materials	\$13,286,417	22	\$12,164,947	24	\$13,204,922	28
Production supplies	\$2,267,970	19	\$2,574,746	23	\$1,300,046	25
Shoreside monitoring	\$181,209	12	\$456,947	13	\$119,793	22
Taxes (property and excise)	—	—	—	—	\$1,347,525	26

Table A.11: Total Custom Processing.

Custom Processing	2009		2010		2011	
	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	784,426	3
Cost of custom processing of other (non-whiting, non-groundfish)	1,359,705	3	1,305,629	4	928,741	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	2,350,537	3
Weight of custom processing of other (non-whiting, non-groundfish)	6,202,438	3	5,605,518	4	2,965,509	3

Table A.12: Total Other Revenue.

Other Revenue	2009		2010		2011	
	Total	N	Total	N	Total	N
Custom processing of whiting	***	***	***	***	***	***
Custom processing of non-whiting groundfish	7,901	3	89,854	3	667,714	5
Custom processing of other (non-whiting, non-groundfish)	379,196	6	483,527	7	1,063,806	5
Offloading	—	—	—	—	1,862,756	13

Appendix B Future Improvements

There are several ways in which the EDC Program will continue to improve the data collection administration and operations with regards to first receivers and shorebased processors.

- There are several points in which the identification of buyers and shorebased processors can be improved. In past data collections, there were two issues with identifying shorebased processors and buyers.
 - First, initially, under the catch share program, the buyer of a fish could use the first receiver site license of an offloader to buy groundfish. This meant that there was no first receiver site license for the true buyer and therefore no way to identify this buyer. Recent changes to the regulations¹ now require that all buyers have a first receiver site license for all physical locations where they purchase, take custody, or control of an IFQ landing. The name of the buyer should in all cases now match the name on the first receiver permit and that on the e-ticket. The implementation of these regulations should improve EDC data quality and catch-share performance monitoring for the 2013 survey year and beyond.
 - The second issue is the identification of shorebased processors. The first receiver site license program, and previously, the state run licensing program for commercial seafood buyers, can be used for all buyers of seafood, but there is currently no method for identifying processors that do not have a first receiver site license and receive round or headed-and-gutted IFQ species groundfish or whiting from a first receiver.

B.1 Cost allocation

The costs reported on the forms include the costs related to all operations of the facility. This means that in order to look at the performance of the IFQ program, the costs related to the program must be "disaggregated" from the total costs reported on the forms. The EDC program is in the process of developing methods for cost allocation for processors, with further economic analysis and interviews with participants needed. Processing costs likely differ between some fisheries and product types in terms of expenses on labor, additives, equipment,

¹For more detailed information see: Compliance Guide Pacific Coast Groundfish Trawl Rationalization Program: Changes for 2012 and beyond Federal Register: 76 FR 74725, December 1, 2011

utilities, and production supplies. The major cost categories include the gross cost of fish paid for, investments through capitalized expenditures, daily operating expenses including labor and utilities, and various other expenses. EDC processor forms have a variety of measures available to allocate costs including gross weight of fish purchased, total weight of production, gross cost of fish purchased, and total value of production.

With one or a combination of these measures, the EDC Program will explore methods to allocate costs between fishery groups. For analysis, the EDC Program has tentatively chosen the following species groups:

- Whiting
- Catch share groundfish
- Fixed gear groundfish
- Open access groundfish
- Crab
- Shrimp
- Salmon
- Coastal pelagics, and highly migratory species including tuna and herring
- Halibut, including Pacific and California
- Other, including squid, echinoderms, shellfish, sturgeon, and “other”

B.2 Processor types

In this report, all of the first receivers and processors are analyzed as a single group. In subsequent reports, the EDC Program will attempt to partition the entities into groups that will aid in the analysis and interpretation of the data. Some options are to partition the data by whether they process fish. We will also explore partitions based on the species or groups of species processed. Input from participants and fishery managers would be helpful in determining which partitions would be most useful.