



Alaska's Fishermen

Harvests, earnings, and their other jobs

Alaska has long had one of the most valuable commercial fishing industries in the nation. Four of the top 10 ports for landings by volume and six of the top 10 ports for value are in the state. More than half of commercially captured U.S. seafood is caught in Alaska.

In 2011, for the 15th year in a row, Dutch Harbor-Unalaska led the nation in the amount of fish landed. (See page 12 for a profile of that area.)

The industry's reach

The seafood industry directly employs thousands of workers, some from communities without many other job opportunities. About 32,200 people

The challenge of counting harvesters

Most payroll jobs in Alaska — those where employers pay a wage or salary — are covered under state unemployment insurance laws. Employers are required to report job numbers and wages to the Department of Labor and Workforce Development, which uses those numbers to count jobs and record wages.

Counting fish harvesters is more difficult, because most commercial fishermen are considered self-employed and do not pay into the unemployment insurance system, and crew generally work for a share of the profit rather than a set wage. Without these UI records, the department uses a variety of other sources to estimate employment.

For more detail on the methods the department uses to create these estimates, see the "About these numbers" box on page 8.

fished commercially in 2011, including about 9,900 permit holders who made at least one landing that year and more than 22,000 crew members.

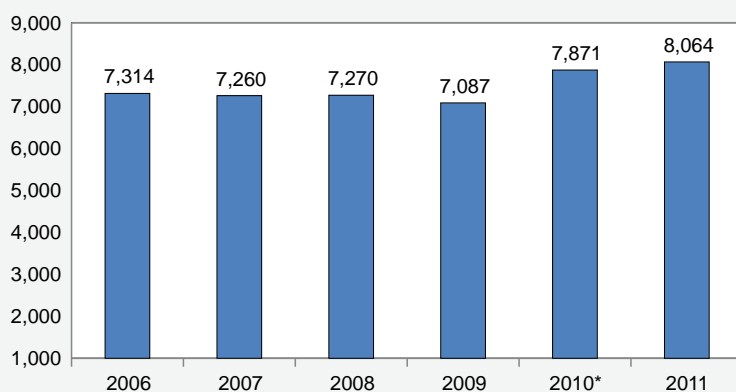
Though this article focuses exclusively on fish harvesting, thousands more Alaskans work in fish processing plants, fishing-related support services, and businesses such as restaurants, bars, and retail shops where people who fish spend their money. These support jobs are also an important part of the Alaska economy and show the broad reach of the seafood industry as a whole. (For a profile of seafood processors, see page 10.)

Fishing employment up in 2011

Because fish harvesting is so seasonal and varies from fishery to fishery, comparing employment in any particular month is not always useful for identifying industry trends. Average monthly job counts give a better picture, and they were up overall in 2011. (See Exhibit 1.)

Salmon harvesting, which represents more than half of the total jobs, and groundfish harvesting each added more than 200 jobs over the year. Halibut, crab, and herring were among the species with employment down for the period.

1 Average Monthly Employment Alaska fish harvesting, 2006 to 2011



*The 2010 data were revised using 2011 crew factors. Because the crew factors changed, adjusting the earlier data allows the two years to be compared. For more on crew factors, see "About these numbers" on page 8.
Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; National Marine Fisheries Service; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

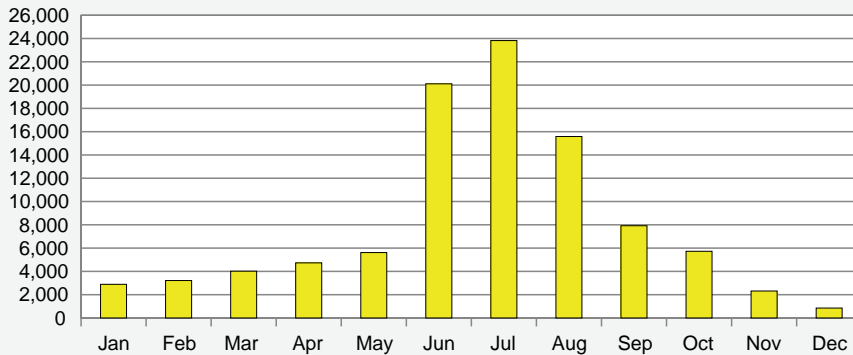
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Fish Harvesting Employment by Year Alaska, 2001 to 2011

	Monthly Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2001	7,959	2,972	4,286	4,505	4,681	7,053	18,884	21,571	13,921	8,095	6,194	2,617	726
2002	7,168	3,590	4,047	4,334	4,913	6,715	16,292	18,224	11,975	6,983	5,794	2,632	524
2003	7,404	3,284	3,609	4,378	5,797	6,233	17,610	19,670	11,922	7,191	5,969	2,660	526
2004	7,330	3,594	3,492	4,110	5,050	6,476	17,139	19,634	12,308	7,371	6,023	2,259	509
2005	7,486	3,561	3,150	4,227	5,115	6,283	18,169	20,566	12,889	7,192	4,958	2,768	953
2006	7,314	2,700	3,092	4,448	4,458	5,725	17,666	20,175	13,531	7,671	4,838	2,422	717
2007	7,260	2,584	2,966	3,930	4,348	5,949	17,528	20,137	13,567	7,500	4,738	3,080	791
2008	7,270	2,738	3,138	4,511	4,445	5,572	17,022	20,446	13,633	8,225	4,202	2,708	602
2009	7,087	2,527	3,817	3,126	4,874	5,693	17,609	20,076	13,687	7,148	4,593	2,388	507
2010	7,871	2,668	3,060	4,005	5,255	5,685	18,878	23,128	15,287	7,759	4,992	2,887	850
2011	8,064	2,886	3,210	4,014	4,727	5,614	20,105	23,821	15,582	7,920	5,725	2,311	849

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Fish Harvesting Employment by Month Alaska, 2011



Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; National Marine Fisheries Service; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Fisheries and seasonality

Employment trends follow fishing seasons, and though high employment months vary by fishery, over 60 percent of the year’s total harvesting employment takes place in June through August. (See exhibits 2 and 3.) Salmon averaged more than 16,000 jobs a month during those months — 80 percent of total summer harvesting employment.

Though salmon fisheries have the most jobs by far and account for the majority of seasonal work, other fisheries are seasonal as well. Employment numbers for some fisheries are smaller than salmon’s, but vary from month to month just as dramatically. For example, most employment in dive fisheries (such as sea cucumber) begins in October and tapers off through the remaining winter months.

Jobs by species, gear, and region

Nearly 4,700 harvesters fished for salmon per

month in 2011, about 58 percent of the monthly average for all fish harvesters for the year.

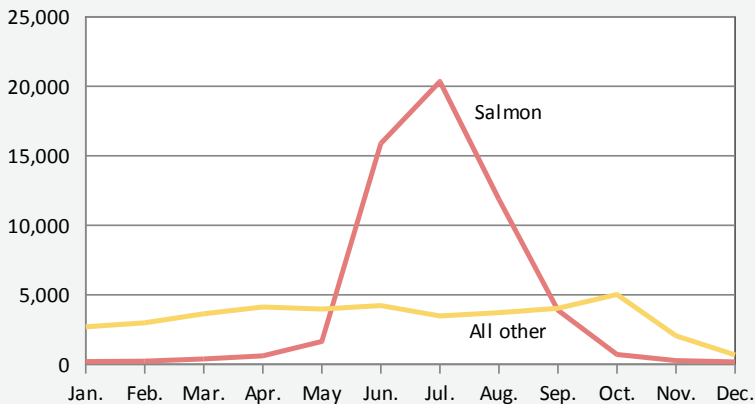
Groundfish and halibut followed with 14 and 13 percent, respectively. (See Exhibit 4.)

Three gear types accounted for almost 60 percent of harvesting jobs in the state in 2011. Longliners primarily caught halibut, sablefish, and other bottomfish, while gillnetters and set netters targeted salmon. Together, the three provided an average of about 4,800 jobs a month. (See Exhibit 5.)

Longliners fished species with seasons that offered steady, significant employment for most of the year, while most employment for gillnetters and set netters was during the summer.

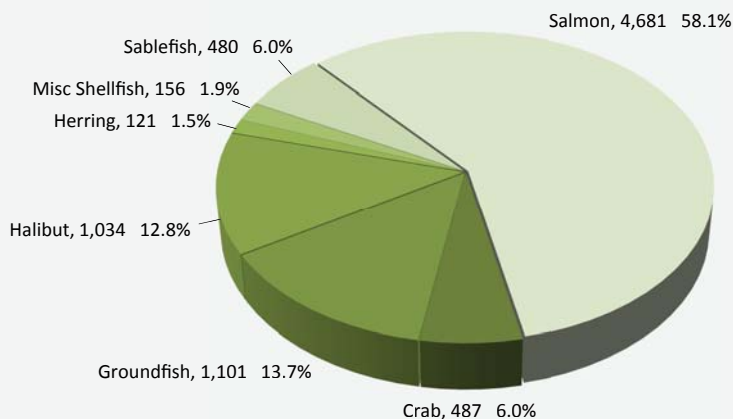
Some fisheries and areas of the state, such as the sockeye run in Bristol Bay, follow intense and relatively short fishing seasons that offer plentiful jobs for a brief time. Fishing seasons in other areas such as Southeast allow permit holders to fish year-round, creating a job market that fluctuates far less. (See Exhibit 6.)

3 Monthly Harvesting Employment Salmon vs. other species, 2011



Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; National Marine Fisheries Service; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Average Monthly Jobs by Species Alaska fish harvesting, 2011



Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; National Marine Fisheries Service; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Most are men, crew are young

Of the 30,300 fish harvesters whose genders were recorded in 2011, 85 percent were men. (See Exhibit 7.)

Forty-five percent of all permit holders were between ages 45 and 60, with an average age of 47. (See Exhibit 8.) The 2011 numbers show there were roughly twice as many permit holders between 45 and 60 as there were between 30 and 44.

Crew members were much younger on average than permit holders, with an age distribution centered around 21. There was also a higher incidence of crew members in their mid-30s, dropping off in the older age range. This may be due in part to aging crew eventually purchasing their own permits.

What else fish harvesters do

Like other working Alaskans, fish harvesters often hold more than one job. Because their fishing-related work is seasonal, many work part of the year in other occupations.

Almost 9,000 active permit holders and crew had payroll jobs in 2011 — that is, they worked for an employer when they weren't fishing. Over 29 percent of the more than 9,900 permit holders and 27 percent of 22,200 crew members held second jobs in Alaska where they drew a wage.

A number of other fishermen may have also been self-employed when they weren't fishing. Further, the information necessary to track permit holders and crew into the workforce is not always available (for example, second-job information for fishermen who worked in other states or for the federal government).

Permit holders earned more on average than crew in their other, nonfishing-related jobs. Permit holders made an average of more than \$29,000 each in nonfishing wages. In contrast, crew members earned \$18,650 at their other jobs on average.

Second jobs by area of the state

Permit holders who made landings in the Yukon Delta and Northern coastal areas were less likely to depend solely on fishing income than those who fished other areas. (See the third table of Exhibit 9.) In these areas, more fish may be caught for subsistence use than for commercial sale. At the other end of the scale, only 14.4 percent of permit holders in the heavily fishing-based Aleutians and Pribilof Islands areas had other earnings.

Those in Southcentral, as a group, earned the most in nonfishing jobs and had the highest average annual earnings at more than \$41,000. The region includes Anchorage and Mat-Su, high

population areas with diverse economies and a variety of job opportunities.

Set netters most likely to hold another job

Set net permit holders were especially likely to also have other jobs. (See the second table of Exhibit 9.) They made nearly \$41 million of the \$84.5 million in payroll earnings of all harvesters in 2011.

Set netting is a small-scale type of gillnetting, often done by families, and is seldom the permit holder's only source of income. More than 50 percent of all set net permit holders also had a known wage and salary job.

At the other end of the scale, less than 3 percent of trawl permit holders held a separate payroll job. Trawlers are generally large vessels and can work fisheries with relatively long seasons.

Most with multiple jobs fish for salmon

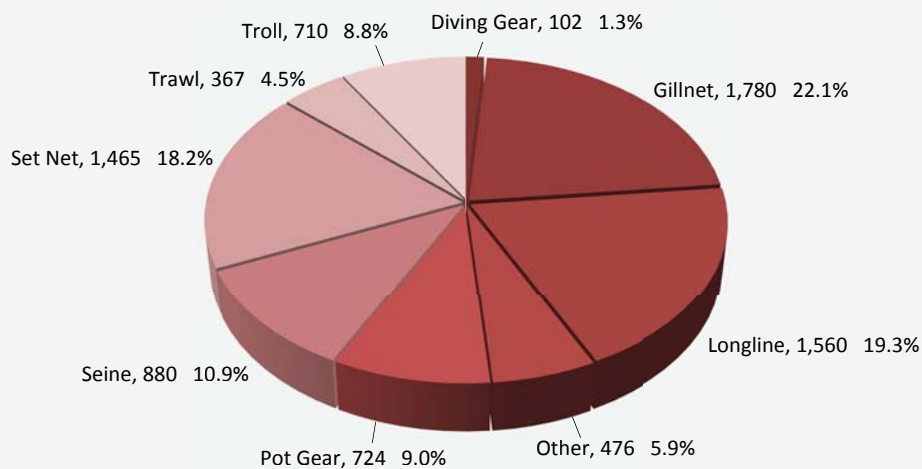
More than three-quarters of the 2,901 permit holders known to have held a payroll job in 2011 were salmon harvesters. (See the first table of Exhibit 9.) About one in three salmon permit holders worked another job when they weren't fishing, and earned \$65.6 million of the \$85.5 million in payroll earnings of all permit holders. Because salmon harvests are mainly in the summer, these harvesters have an extended off-season for other work.

On the other end of the spectrum, less than 10 percent of the 386 sablefish permit holders held a separate payroll job in 2011. Groundfish and crab permit holders were also less likely to hold another

Average Monthly Jobs by Gear Type

Alaska fish harvesting, 2011

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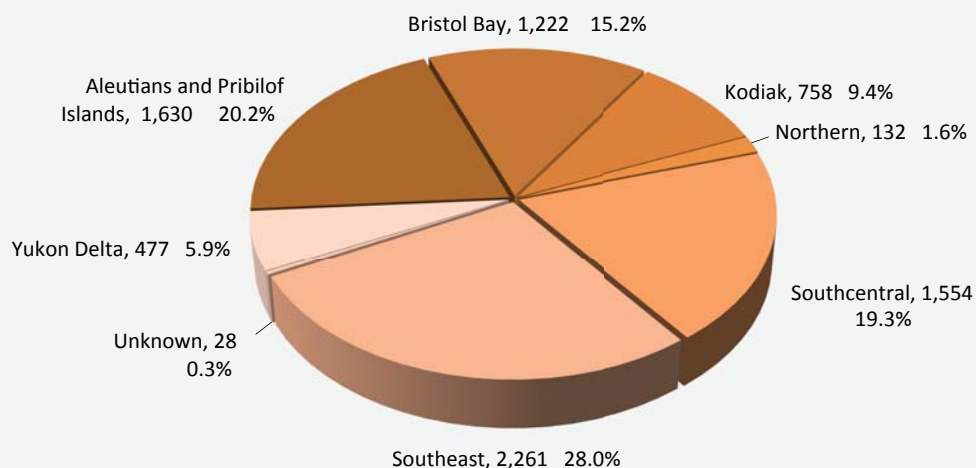


Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; National Marine Fisheries Service; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Average Monthly Jobs by Region

Alaska fish harvesting, 2011

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Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; National Marine Fisheries Service; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

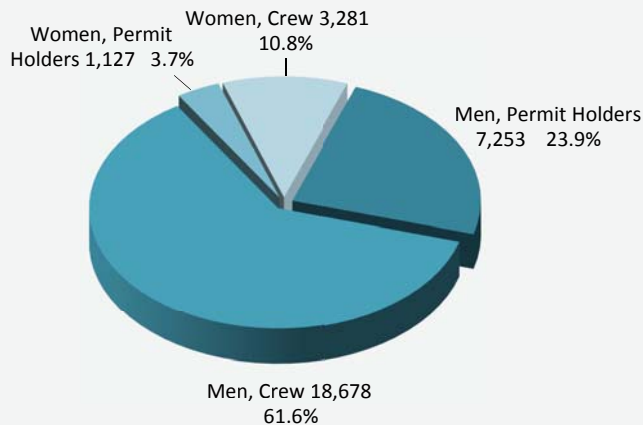
job, at 11.7 percent and 13.6 percent, respectively.

Construction tops offseason work

Jobs in the construction trades were the most common for both permit holders and crew when

7 Most Fish Harvesters Are Men

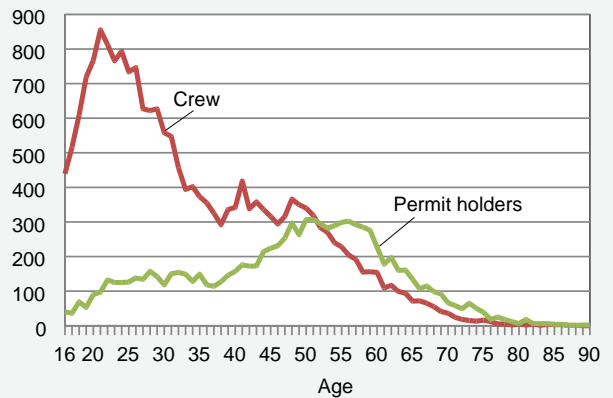
Resident permit holders and crew,* 2011



*Includes only active permit holders and crew whose gender has been reported. Gender data are not available for nonresident harvesters.
Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

8 Crew Members Mostly Young

Alaska permit holders and crew, 2011



Note: Includes only active permit holders and crew who are at least 16 years old.
Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

About these numbers

Because fisheries data come from a variety of sources with different lag times, harvesting estimates are not available as quickly as other data series the Department of Labor and Workforce Development publishes. For example, information on fish landings is reported annually, several months after the end of the year. This can lead to delays between harvests and data publication.

As a substitute for detailed payroll records, the department applies a crew factor, explained below, to Alaska Department of Fish and Game's weekly landing and daily delivery records along with National Marine Fisheries Service's landings data to estimate fish harvesting employment. A landing is the initial sale of harvested fish to a buyer.

The department receives these numbers from the Alaska Fisheries Information Network, or AKFIN, whose records are a combination of those two sources and also report fish type, value, and volume caught as well as the number of permit holders who fished that year and their residency status.

Permit holders are assigned unique identifying numbers to ensure that if they make multiple landings in a month on the same permit, they are counted only once. Jobs are also assigned by place of work rather than the residence of the workers. Most permits have a geographic designation where specific species can be harvested. Permits that allow fishing anywhere in the state receive a special harvest area code.

The department considers the permit itself the employer, which means a permit holder who makes landings under two different permits in the same month will generate two sets of jobs. Considering the permit the employer rather than the permit holder is a slightly better approximation of how jobs and workers are counted in wage and salary numbers. If permit holders were the employers, it would incorrectly appear that they maintain identical crew for every permit.

Crew factors and the 2012 survey

The department sent surveys to 8,952 permit holders in March of 2012 to determine maximum crew requirements by month. The return rate was 32 percent, with almost 94 percent of permit holders who replied indicating they fished in 2011.

Responses from the 2012 survey were combined with those from the 2011 survey to produce a crew factor by gear type. The department applied the crew factor to landings data for active permit holders to estimate 2011 fish harvesting employment.

The monthly harvesting employment estimates are likely conservative as they don't reflect time spent by permit holders and crew preparing to fish or winding up operations during months not spent fishing.

Who was counted

DOL included only permit holders who had made at least one landing in 2011. In most fisheries in the state, a permit holder can crew for another fish harvester without buying a separate crew license, so it's possible some permit holders not only fished their own permit, but crewed on someone else's boat as well.

Because crew licenses are purchased for either a seven-day period or a calendar year, the department assumed that all 2011 license holders fished at least once that year.

Though most fish harvesters are exempt from paying into the state unemployment insurance program, some do. DOL records show 886 crew and 176 permit holders paid into the UI system and held positions that were likely fishing-related. Because the focus of that part of the article was on work being done other than fish harvesting, these workers were not included in the discussion or data. The jobs not included were fishermen and related fishing workers, sailors and marine oilers, captains, mates, pilots of water vessels, and ship engineers.

they weren't fishing. (See Exhibit 10.) Together, permit holders and crew worked more than 1,200 construction jobs, nearly double the number of material moving occupations, the job group with the second highest number.

Various material moving jobs were high on the list for both crew and permit holders. Some of the top employers for these workers were marine cargo handling companies.

Nearly 550 crew members also worked in food processing, mostly in fish processing plants. This makes sense, given the seasonality of fishing, especially for small communities where fishing is a major part of the economy and other opportunities are limited.

For some, such as teachers or school aides, fishing is the "other" job. The seasonality of school complements their fishing work, and they take advantage of their free summers to earn money at sea.

9 Permit Holders' Other Jobs Alaska, wage and salary earnings, 2011

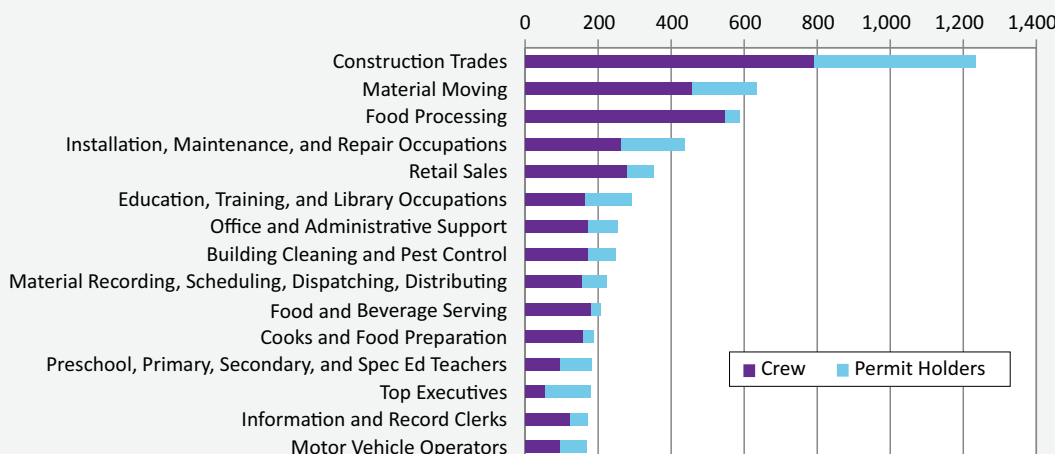
BY SPECIES FISHED					
Species	With WS Earnings	No WS Earnings	Percent With WS earnings	Total Species WS Earnings	Average Earnings
TOTAL	2,901	7,011	29.3%	\$84,548,061	\$29,144
Salmon	2,237	4,540	33.0%	\$65,557,409	\$29,306
Halibut	434	1,169	27.1%	\$13,184,174	\$30,378
Misc Shellfish	64	206	23.7%	\$1,996,344	\$31,193
Crab	48	306	13.6%	\$1,352,447	\$28,176
Groundfish	46	348	11.7%	\$960,516	\$20,881
Sablefish	37	349	9.6%	\$775,961	\$20,972
Herring	26	90	22.4%	\$551,762	\$21,222
Other	9	3	75.0%	\$169,449	\$18,828

BY GEAR TYPE					
Gear	With WS Earnings	No WS Earnings	Percent With WS earnings	Total Species WS Earnings	Average Earnings
TOTAL	2,901	7,011	29.3%	\$84,548,061	\$29,144
Set Net	1,410	1,379	50.6%	\$40,864,221	\$28,982
Gillnet	583	2,028	22.3%	\$18,490,286	\$31,716
Longline	394	1,512	20.7%	\$12,315,875	\$31,259
Troll	252	668	27.4%	\$6,739,392	\$26,744
Seine	81	589	12.1%	\$1,302,131	\$16,076
Pot Gear	70	404	14.8%	\$2,349,865	\$33,570
Diving Gear	46	140	24.7%	\$969,419	\$21,074
Trawl	5	174	2.8%	\$54,525	\$10,905
Other	60	117	33.9%	\$1,462,346	\$24,372

BY REGION					
Region	With WS Earnings	No WS Earnings	Percent With WS earnings	Total Species WS Earnings	Average Earnings
TOTAL	2,901	7,011	29.3%	\$84,548,061	\$29,144
Yukon Delta	827	249	76.9%	\$18,745,537	\$22,667
Bristol Bay	589	1,620	26.7%	\$18,209,391	\$30,916
Southeast	542	2,143	20.2%	\$14,467,168	\$26,692
Southcentral	503	1,590	24.0%	\$20,767,800	\$41,288
Northern	158	119	57.0%	\$5,208,684	\$32,966
Aleutians and Pribilof Islands	122	728	14.4%	\$3,075,513	\$25,209
Kodiak	110	543	16.8%	\$3,170,373	\$28,822
Unknown in AK	50	19	72.5%	\$903,594	\$18,072

Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

10 Top Second Jobs for Fish Harvesters Alaska, by occupational categories, 2011



Sources: Commercial Fisheries Entry Commission; Alaska Department of Fish and Game; and Alaska Department of Labor and Workforce Development, Research and Analysis Section