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Fish Harvesting in Alaska

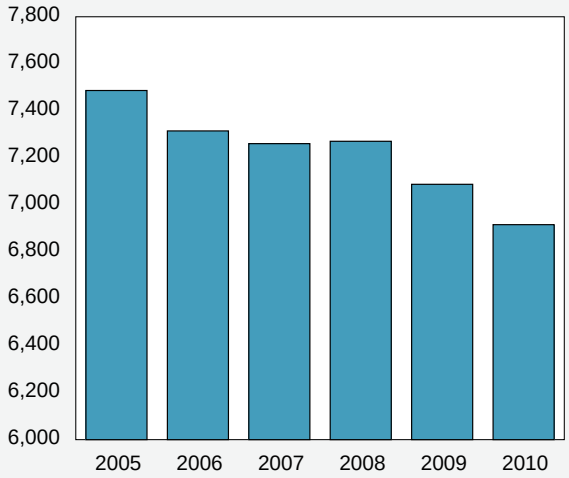
Survey provides updated estimates for 2010

Fish harvesting is a critical component of Alaska's economy, employing thousands of people across the state and bringing money and workers to parts of Alaska that might otherwise struggle to find steady sources of income. Its economic impact goes beyond the harvesting of fish, and includes seafood processing and all necessary support activities.

Alaska produces a massive amount of seafood each year. The most recent data from the National Marine Fisheries Service show that in 2010, 53 percent of domestic harvested poundage came from Alaska — 4.35 billion pounds of product worth $1.6 billion. Dutch Harbor/Unalaska led the nation that year for pounds harvested, and in dollar value was second only to New Bedford, Mass.[1]

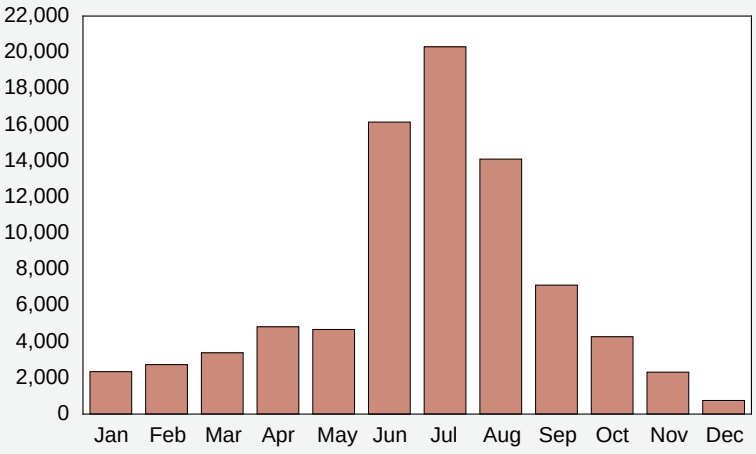
Commercial fishing in Alaska is a complex mix of government agencies, regulations, permits, seasons, and species. This article examines just a small part of that picture: the numbers of jobs created by fish harvesting in Alaska and how those figures have changed since 2005.

1 Average Monthly Employment
Alaska fish harvesting, 2005 to 2010



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

2 Monthly Harvesting Employment
Alaska, 2010



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

Origins of the numbers

The Alaska Department of Labor and Workforce Development can accurately count seafood processing jobs because, like all other wage and salary jobs, employers are required to report the number of employees and their earnings each month as part of their mandatory unemployment insurance coverage. But because the majority of fish harvesting jobs are exempt from state unemployment insurance laws, the department uses surveys and industry research to estimate harvesting employment. (See the "About these data" sidebar on page 7.)

Most of what we know about Alaska's fish harvests comes from the Alaska Department of Fish and Game's Commercial Fisheries Entry Commission, which provides detailed data on gross estimated earnings, pounds caught, permit

Monthly Fish Harvesting Employment 3

All species, Alaska, 2005 to 2010

Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Monthly average
2005	3,561	3,150	4,227	5,115	6,283	18,169	20,566	12,889	7,192	4,958	2,768	953	7,486
2006	2,700	3,038	4,573	4,293	5,709	17,748	20,066	13,700	7,719	5,003	2,507	720	7,315
2007	2,584	2,966	3,930	4,348	5,949	17,528	20,137	13,567	7,500	4,738	3,080	791	7,260
2008	2,738	3,138	4,511	4,445	5,572	17,022	20,446	13,633	8,225	4,202	2,708	602	7,270
2009	2,527	2,817	3,126	4,874	5,693	17,609	20,076	13,687	7,148	4,593	2,388	507	7,087
2010	2,342	2,733	3,388	4,826	4,678	16,141	20,302	14,093	7,129	4,277	2,317	753	6,915
Change since '05	-1,219	-417	-839	-289	-1,605	-2,028	-264	1,204	-63	-681	-451	-200	-571
Percent change	-34.2%	-13.2%	-19.8%	-5.7%	-25.5%	-11.2%	-1.3%	9.3%	-0.9%	-13.7%	-16.3%	-21.0%	-7.6%

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

holders, and permit holders who fished. Since 2000, the Department of Labor has used Fish and Game's weekly landing and daily delivery records plus data from the National Marine Fisheries Service to estimate fish harvesting employment.

Fish and Game provides information on who bought a crew license, but not on how, where, when, and if they fished. To estimate harvesting employment by region, gear, and species, the Department of Labor periodically sends out a survey to permit holders to estimate the number of working crew for each permit, or "crew factor." These crew factors are added to the existing landings[2] database.

The last Alaska Seafood Employment Survey was in 2002, and until this year, estimates were based on 2002 crew factors. In 2011, the department sent out an updated survey to most of the permit holders who fished in 2009, which resulted in minor updates to most of the crew factors for the 2010 employment estimates.[3]

Harvesting is highly seasonal

Harvesting employment was distributed among the following fisheries in 2010: salmon (50.2 percent), halibut (20.1 percent), groundfish (8.1 percent), sablefish (7.4 percent), crab (5.4 percent), herring (4.9 percent), and miscellaneous shellfish (3.9 percent).

Average monthly fish harvesting employment has declined nearly every year since 2005 and in 2010, hit its lowest level since the data series was created. (See Exhibit 1.) In 2010, there were 6,915 harvesters working each month on average, a decline of 2.4 percent from the previous year and down 7.6 percent from 2005.[4] (See Exhibit 3.)

July has historically had the highest levels of employment as the salmon season goes into full swing — in 2010, July's harvesting employment topped 20,000. (See Exhibit 2.) On the other end of the spectrum, December's commercial fishing job count has been below 1,000 every year from 2005 to 2010.

Employment in the peak summer months — June, July, and August — has declined at a slower rate than in the off-peak months.The biggest declines (in percentages and in some cases whole numbers) have been in January and May, indicating a mostly stable employment pattern in the summer and a greater emphasis on peak harvesting months.

It's important to note that declining average monthly employment is not necessarily an indicator of weakness in the industry. A better overall indicator of the harvesting industry's health is gross earnings, which grew modestly from 2005 to 2010.

Regional worker counts

Average monthly job counts — the 6,915 number for 2010 in Exhibit 3 — approximate how fish harvesting compares to other industries for which employment numbers are regularly produced and published. A different way to look at harvesting employment is to estimate the number of people involved at some point in the year, either as

crew members or as permit holders who actively fished.

The following sections examine those numbers for the seven regions: Aleutians and Pribilof Islands, Bristol Bay, Kodiak, Northern, Southcentral, Southeast, and the Yukon Delta. (See Exhibit 4.)

4 Harvesters and Earnings
Alaska by region, 2005 to 2010

Region	Year	Active permit holders	Estimated crew	Total estimated workforce	Total gross earnings
Aleutians and Pribilof Islands	2005	1,228	3,733	4,961	$444,403,459
	2006	952	3,908	4,860	$348,622,994
	2007	1,040	4,114	5,154	$444,955,461
	2008	1,058	4,362	5,420	$572,375,902
	2009	1,070	4,239	5,309	$657,505,626
	2010	1,070	3,623	4,693	$473,872,054
Bristol Bay	2005	2,476	4,368	6,844	$98,382,802
	2006	2,405	4,852	7,258	$96,787,867
	2007	2,257	4,543	6,800	$110,826,728
	2008	2,268	4,573	6,841	$113,420,471
	2009	2,335	4,715	7,050	$133,326,958
	2010	2,272	4,953	7,225	$169,465,187
Kodiak	2005	819	2,208	3,027	$83,908,817
	2006	811	2,461	3,272	$80,750,669
	2007	742	2,526	3,268	$122,303,929
	2008	793	2,877	3,670	$132,924,864
	2009	820	2,844	3,664	$111,163,060
	2010	789	2,571	3,360	$118,358,991
Northern	2005	177	345	522	$2,024,124
	2006	202	445	647	$1,888,421
	2007	145	469	614	$2,045,962
	2008	165	465	630	$3,178,163
	2009	199	428	627	$2,780,621
	2010	217	738	955	$4,121,598
Southcentral	2005	2,653	5,141	7,794	$168,398,092
	2006	2,058	4,373	6,431	$76,125,399
	2007	2,126	5,387	7,513	$193,246,998
	2008	2,152	6,012	8,164	$194,786,893
	2009	2,283	5,788	8,071	$131,353,891
	2010	2,183	5,528	7,711	$264,910,322
Southeast	2005	2,907	6,129	9,036	$158,778,748
	2006	2,779	6,286	9,065	$134,127,575
	2007	2,637	6,898	9,535	$181,835,207
	2008	2,623	7,362	9,985	$200,044,109
	2009	2,835	7,315	10,150	$173,481,400
	2010	2,617	6,565	9,182	$208,125,637
Yukon Delta	2005	1,092	2,738	3,830	$3,576,085
	2006	1,048	3,134	4,182	$4,614,006
	2007	1,006	3,045	4,051	$4,786,208
	2008	897	2,707	3,604	$3,552,485
	2009	987	2,986	3,973	$5,941,948
	2010	957	3,283	4,240	$4,885,517

Note: ND means the number is not disclosable.
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

Aleutians and Pribilof Islands

Though its harvesting workforce is fourth-largest, the Aleutians and Pribilof Islands region was the leader in gross earnings at almost $500 million in 2010 — nearly double that of the second-highest earning region, Southcentral. Despite the high gross earnings for the area, its number of fish harvesters has declined over the last six years. From 2005, there was an estimated loss of 158 permit holders and 110 crew members.

Bristol Bay

Bristol Bay's earnings and harvesting employment have grown the most over the last six years. In 2010, the region's gross earnings topped $169 million, a 72 percent increase from 2005. Harvesting employment in the same period rose by 381 workers, to 7,225.

Kodiak

The Kodiak fisheries are among the most stable in the state, with the number of permit holders consistently around 800 and 789 actively fishing in 2010. Estimated crew is typically near 2,500, with about 2,571 crew members working in 2010. Gross harvest earnings in 2010 were $118 million, an increase of 41 percent over 2005.

Northern

The Northern region has the smallest workforce, primarily because of the lack of accessible fisheries. However, it has grown somewhat since 2005, from 177 to 217 active permit holders and double the number of crew members. The region's gross earnings have also doubled, approaching $4.2 million in 2010.

Southcentral

Southcentral is second in earnings following the Aleutians and Pribilof Islands, and second in employment after Southeast with close to 2,200 active permit holders. Gross earnings hit a record high in 2010 at nearly $265 million, mostly due to a stellar year for regional salmon harvests.

Southeast

The Southeast region had the largest fish harvesting workforce in 2010, but its gross earnings

About these data

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 publishes. For example, information on fish landings is reported annually, several months after the end of the calendar year. This can lead to a significant delay between the fish harvest and data publication.

Permits

As a substitute for detailed payroll records,[1] state and federal fish management agencies provide information on the specific landings made under each commercial permit over the year. A landing is the initial sale of harvested fish to a buyer. The Alaska Fisheries Information Network records the landing information — including fish type, value, and volume caught — as well as the number of permit holders who fished that year and their residency status.

Each permit holder has a unique identifying number that allows the Department of Labor to assign only one set of workers to a specific permit in any given calendar month, even if there are numerous landings during the month.[2] 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 of Labor deems the permit itself the employer, which means that 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.

Changes in the 2011 survey

The monthly harvesting employment estimates are conservative because they don't currently reflect time spent by permit holders or their crew preparing to fish or winding up operations at the end of the season. This is because the Department of Labor determines the months of work only by months with registered landings. So if the permit holder works for two weeks in May getting the boat ready and begins to make landings in June, the effort in May is not counted as employment despite its obvious importance to the enterprise. However, the Alaska Seafood Employment Survey for 2010, conducted in 2011, included new questions on preparation and cleanup time for the crew that may be incorporated into future estimates. While the department gathered some responses to these new questions for 2010, more are necessary for detailed analysis and incorporation into harvesting estimates. Experience with this year's survey and suggestions from these early responses will help the department refine future surveys and improve the accuracy of future harvesting employment estimates.

[1]Another factor limiting employment data for fisheries is that the U.S. Bureau of Labor Statistics, which governs how employment is counted in the federal-state cooperative program called Current Employment Statistics, defines fishing as an agricultural activity. Agricultural employment has traditionally been excluded from employment statistics under this program.
[2]The same approach to counting the number of monthly jobs is used for other industries in that a person who works 60 hours in a week for a single employer is counted the same way as a person who works 20 hours in a week. Each is said to hold one job in that month.

ranked third behind Southcentral. Harvesting employment grew by 146 workers, reaching 9,182. As with many of the regions in 2010, Southeast had a record year for gross earnings — $49 million more than in 2005.

Yukon Delta

In the Yukon Delta region, the number of active permit holders has slowly decreased since 2005; however, the number of crew has grown, resulting in higher overall employment. From 2005 to 2010, gross earnings in the region rose 37 percent, to $4.9 million.

A look at 2011

The Alaska Department of Fish and Game's in-season reports for 2011 show the spike in Prince William Sound salmon that boosted Southcentral's gross earnings in 2010 has returned to its five-year average. However, other regions show higher-than-normal salmon harvests. Southeast in particular is showing a strong season and may see an increase in earnings and workers in 2011.

Notes

[1]Source: NOAA Fisheries' Office of Science and Technology, "Fisheries of the United States – 2010"
[2]A landing is the initial sale of harvested fish to a buyer.
[3]For employment estimates by gear type or species, see http://labor.alaska.gov/seafood/seafood.htm.
[4]Average monthly employment over a year is the most commonly used employment measure in Alaska. It allows a more meaningful comparison of highly seasonal industries — such as fishing, tourism, and construction — to other industries in terms of economic impact. Average monthly employment numbers, because they are averages, can be significantly smaller than peak-month employment numbers, as is the case with fish harvesting.