

Fish harvesting's 5-year trends

A look at jobs by species and region from 2015 to 2019

Total yearly fish harvesting jobs



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

By JOSHUA WARREN

Alaska's total seafood harvesting employment for 2019 wasn't a big change from the year before. The industry added just 33 jobs, which was growth of about 0.4 percent.

While last year's change was small, harvesting employment can fluctuate considerably from year to year. That's because so many factors determine how the industry performs, including weather, market prices, and closures.

Rather than taking the in-depth look at the prior year's employment that we usually publish in November, this year we focused on the industry's five-year job trends. COVID-19 will be a major factor in the data that will be available

Why and how we estimate seafood harvesting employment

Alaska's world-class fisheries are a critical part of the state's economy. Estimated gross earnings in 2019 totaled more than \$1.7 billion, of which about \$660 million went to permit holders who were Alaska residents.

But unlike the wage and salary job numbers we and our federal partner the Bureau of Labor Statistics publish each month, the employment fish harvesting generates is not readily available. Fishermen are considered self-employed, and permit holders aren't required to report the numbers of people they employ in the same way as employers who are subject to state unemployment insurance laws.

To estimate fisheries employment that's roughly comparable to wage and salary job numbers, we infer jobs in a given month from landings. A landing, or the initial sale of the catch, signals recent fishing activity.

Because fishing permits are associated with a specific type of gear, including boat size, we know roughly how many people a landing requires under various types of permits. The number of people associated with a certain permit is called the crew factor.

For example, a permit to fish for king crab in Bristol

Bay with pot gear on a vessel more than 60 feet long requires about six people, according to a survey of those permit holders. So when crab is landed under that permit, we assume the permit generated six jobs that month. We count each permit only once per month regardless of the number of landings, which is similar to the way people in wage and salary jobs work different numbers of hours.

Most permits designate where specific species can be harvested, so we assign jobs to the harvest location rather than the residence of the permit holder. This approach also best approximates wage and salary employment, which is categorized by place of work rather than worker residence. Jobs generated under permits that allow fishing anywhere in the state receive a special harvest area code and are estimated differently.

We produce the job counts by month because, as with location, that comes closest to wage and salary employment data. And because seafood harvesting employment is much higher in summer than winter, as with tourism and construction, averaging employment across all 12 months allows for more meaningful comparisons among job counts in different industries.

Statewide fish harvesting jobs by month and year, 2001 to 2019

Year*	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average yearly
2001	2,972	4,286	4,505	4,681	7,053	18,884	21,571	13,921	8,095	6,194	2,617	726	7,959
2002	3,590	4,047	4,334	4,913	6,715	16,292	18,224	11,975	6,983	5,794	2,632	524	7,168
2003	3,284	3,609	4,378	5,797	6,233	17,610	19,670	11,922	7,191	5,969	2,660	526	7,404
2004	3,594	3,492	4,110	5,050	6,476	17,139	19,634	12,308	7,371	6,023	2,259	509	7,330
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	7,314
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	3,817	3,126	4,874	5,693	17,609	20,076	13,687	7,148	4,593	2,388	507	7,087
*Because of a change in how harvest jobs are calculated, data before 2010 are not comparable to data from 2010 forward.													
2010	2,668	3,060	4,005	5,255	5,685	18,878	23,128	15,287	7,759	4,992	2,887	850	7,871
2011	2,898	3,214	4,010	4,729	5,642	20,112	23,824	15,586	7,918	5,721	2,303	849	8,067
2012	2,923	3,409	4,609	5,402	6,163	19,237	24,761	16,191	6,988	5,453	2,274	853	8,189
2013	2,736	2,930	4,091	5,516	6,270	22,012	25,351	15,419	7,559	5,496	2,780	930	8,424
2014	2,242	2,776	4,879	5,407	6,489	21,167	24,594	16,593	8,018	5,190	2,596	1,097	8,421
2015	2,520	3,247	4,961	5,029	6,749	21,164	24,649	16,283	8,232	5,252	2,661	1,264	8,501
2016	2,678	3,374	5,222	5,363	6,329	18,840	23,695	16,055	7,909	4,953	1,886	765	8,089
2017	2,205	3,076	4,444	5,026	5,646	19,881	23,541	15,407	8,562	5,334	2,292	754	8,014
2018	2,126	2,538	3,379	4,310	5,166	18,942	22,790	14,763	9,211	4,849	2,681	689	7,620
2019	2,347	2,548	3,637	4,372	4,721	18,154	23,440	15,632	8,664	5,201	2,443	679	7,653
Average monthly	2,784	3,248	4,259	4,943	6,028	18,757	22,114	14,464	7,802	5,259	2,549	768	7,744

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

next year, but the year lag in reporting means this article's estimates don't reflect any of the pandemic's effects.

Because most fish harvesters are self-employed, our regular employment data can't capture them. However, because the commercial fishing industry is a large and critical part of Alaska's economy, and in some coastal areas it generates the most jobs over the year, we create separate harvesting estimates each year. For more on how we estimate fish harvesting jobs, see the sidebar on the previous page.

Although 2020's employment data aren't yet available, the year's salmon harvests suggest it's been a weak year. The pandemic also took its toll on the related seafood processing industry, whose job counts are available sooner and are detailed in the article on page 4.

2018 was the decade low for jobs

Most fisheries have lost jobs since 2015, and that's partly because they hit a decade peak that year. Overall, the industry is down 848 jobs over the last

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five years, even though employment ticked up slightly in 2019 after an underwhelming 2018.

Total harvesting employment hit a high of 8,501 jobs in 2015, then fell to around 8,000 for the next two years before dropping again in 2018 to about 7,600. In 2019, average monthly employment was 7,653.

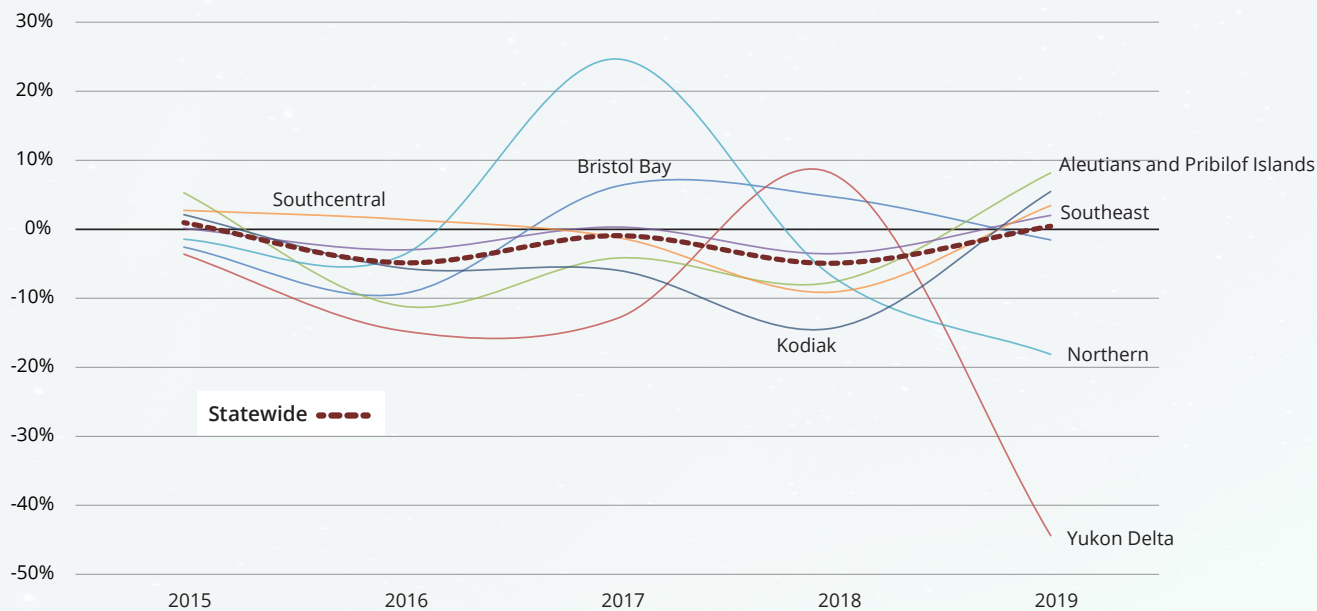
5-year trends by species harvested

The detail that fish harvesters provide also allows a closer look at job trends by region and species harvested. For some species, employment has bucked the downward trend of the last five years.

Shellfish employment not only increased last year, but it also grew steadily over the last five. The gain in 2019 was modest at just six jobs, but this small fishery is up 42 jobs since 2015, representing 23.4 percent growth.

The sablefish (black cod) fishery was the only other category to add jobs over the five years, at an increase of 22. The fishery remains below its 2018

Change in total harvesting employment by region, 2015 to 2019



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

employment peak, however, settling around its yearly average of 646 jobs.

The labor-intensive salmon fisheries, which represent the largest number of jobs, added 93 in 2019 after a dismal 2018. Salmon harvesting employment peaked five years ago, so despite last year's gains, the fishery remains below the five-year average of 4,472 jobs.

Crab harvesting followed a similar trend, gaining 26 jobs in 2019 but remaining below the fishery's five-year average by 21 jobs. That drop is the largest in percent terms by species since 2015: a loss of nearly a quarter of that workforce.

Halibut harvesting gained just three jobs last year, and similar to crab, it hovered below its five-year average in 2019 by 28 jobs. For halibut that was only a 2.6 percent decline, however. At 1,071 total jobs in 2019, the halibut harvesting workforce is considerably larger than for crab.

Two fisheries lost jobs last year and longer-term. The first is herring, Alaska's smallest fishery, which lost more than a fifth of its employment over the period. However, that equates to just 15 jobs lost last year and 18 since 2015.

Groundfish, excluding the large sablefish fishery, has taken the largest hit since 2015, losing jobs

nearly every year. The only positive year registered a gain of just one job.

In 2019, "other groundfish" harvesting lost 29 jobs, for a total decline of 279 over the period. The category hit record employment in 2015, but by 2019, the steady decline put the fishery just three jobs above its historic low since reporting began in 2000 (880 total jobs in 2010).

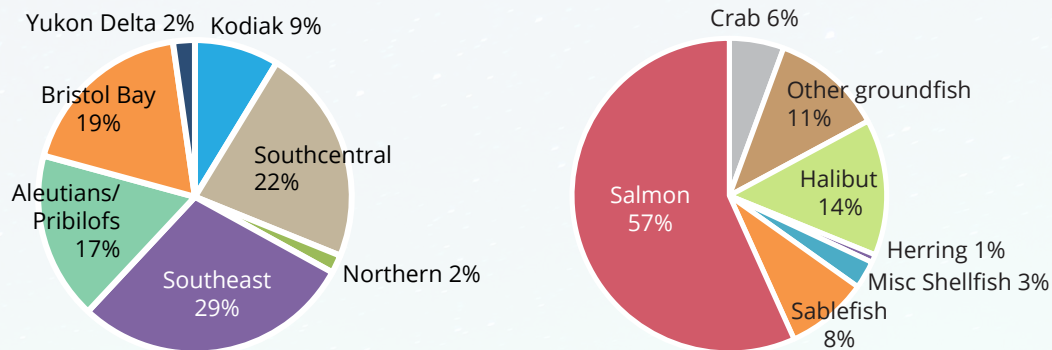
Harvesting job trends by region

Most regions harvest multiple species, so looking at jobs by region is more telling for determining how parts of Alaska have fared. Some areas added jobs in 2019, but because 2015 was a record year, none recorded more jobs last year than they had five years earlier.

The Yukon Delta region has shed the largest share of its total harvesting employment, and last year's loss was extreme — the region's job count fell from 307 in 2018 to 170, as the graph above shows.

The Yukon Delta's loss was entirely due to a salmon season that was both late and short. Area harvesting typically lasts from June through September, but last year, the region fished only in July and August. The region's harvesting job numbers are

Alaska fish harvesting jobs by region and species fished



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

down 55 percent from 2015.

The Northern Region also lost jobs last year, but unlike the Yukon Delta, the Northern Region's decline was a return to normal historical job levels. The region hit a record high of 187 jobs in 2017. While the loss of 32 jobs last year might seem high, the region was down just 14 jobs from 2015. The recent losses were mainly due to the lack of an early crab harvest.

Bristol Bay lost jobs last year and over the 2015 to 2019 period, although the changes were small enough that the region's harvesting employment remained essentially stable. The Bristol Bay Region, whose fishing employment is dominated by its internationally acclaimed salmon fishery, lost just 11 jobs over the period, which was a decline of 0.7 percent.

The other four regions all added jobs last year but haven't regained their 2015 highs: Southeast, Southcentral, Kodiak, and the Aleutians. Southeast's net loss was the smallest at 96 jobs since 2015, which includes last year's gain of 44 jobs. Because Southeast has the largest number of jobs among regions, at 2,183 in 2019, those numbers are relatively small.

Southcentral and Kodiak both lost jobs in recent years but had hit historic highs in 2015, which softened the blow of recent declines. Southcentral remains below its five-year average, but the region added 56 jobs last year. Another two years like that would push the region close to its previous peak.

Kodiak added jobs last year but its decline from

2015 has been steep. The area added 34 harvesting jobs in a single year in 2019 but lost 162, or a fifth of its employment, over five years due to fewer groundfish harvesters during the spring.

The Aleutian Islands' harvesting employment grew most last year. The 2019 gain of 98 jobs came from the salmon fishery's recovery after a weak 2018. The region's total harvesting employment remained 228 jobs below its 2015 level, however.

Most of the other fisheries in the Aleutians/Pribilofs held steady over the five years except crab, which dropped from

347 jobs in 2015 to 214 jobs in 2019. The region's crab harvesting seasons have become shorter and smaller, with fewer harvesters in the peak months as well as fewer months fished. For example, its peak employment month, October, fell from 669 jobs in 2015 to 547 last year. And for December, it fell from 351 jobs in 2015 to just six jobs in December 2019.

The Aleutians' fisheries tend to be more volatile than other regions such as Bristol Bay. Crab, groundfish, and salmon are the Aleutians' largest fisheries, and their performance depends mostly on how long they open each year.

Detailed seafood harvesting employment data by region and species harvested are available at <https://live.laborstats.alaska.gov/seafood/index.cfm>.

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Four regions added jobs in 2019 but haven't yet regained their 2015 highs.