

By **JOSHUA WARREN**

laska's seafood harvesting employment fell by 5 percent from 2015 to 2016. The job losses were mostly in salmon fishing, which had hit record employment the year before.

While total employment remains above average historically, 2016 marked a second year of overall loss. (See Exhibit 1.) The modest decline in 2015 was mostly in groundfish harvesting.

Seafood harvesting can be volatile, though, and early reports from 2017 show record catches and large value increases for salm-

on harvesting, with the amount paid to fishermen nearly 67 percent higher than in 2016. This suggests a resurgence for salmon fisheries this year, while other catches, such as cod, appear weaker so far.

Large losses in salmon fisheries

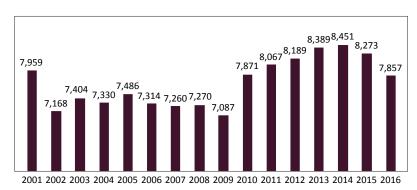
Salmon harvesting employment, which represents the majority of Alaska's commercial fishing jobs, fell by 6.4 percent in 2016, a loss of 323 jobs. Salmon fishing employment declined in most regions, except Southcentral, where it grew slightly.

After reaching just over 5,000 total jobs in 2013, statewide salmon employment hovered around that level

Average Monthly Fishing Jobs Down

ALASKA, 2001 TO 2016

Section



Source: Alaska Department of Labor and Workforce Development, Research and Analysis

Alaska fisheries account for over half of total U.S. harvest volume and almost a third of U.S. harvest value.

for the next two years before declining to 4,714 in 2016.

Groundfish jobs remain stable

Groundfish harvests spiked dramatically in 2014, then snapped back to typical levels in 2015 where they

remained in 2016, commensurate with historical norms. The monthly average for groundfish¹ differed by just three jobs between 2015 and 2016.

While groundfish employment held steady on the statewide level and in some regions, Kodiak's groundfish employment fell by 8.3 percent, a drop that was offset by small groundfish gains in other regions.

Groundfish, which is mainly walleye pollock and Pacific cod, leads Alaska fisheries for sheer poundage and represents nearly half of the state's catch value — and its shares of both grew in 2016.

Groundfish's percentage of Alaska's total catch grew from 78.5 percent in 2015 to 88.3 percent. But because salmon harvests have higher returns per pound, groundfish made up just 48.2 percent of Alaska's gross earnings in seafood harvesting, up slightly from 47.8 percent in 2015.

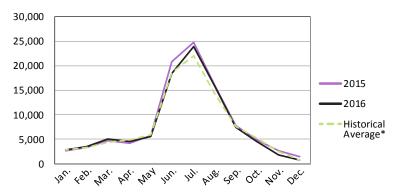
Groundfish leads poundage, but most jobs are in salmon

While value and poundage can shift considerably from year to year, the differences in labor required to harvest salmon mean the majority of commercial fishing jobs are always in salmon harvesting.

Salmon fishermen have limits on the size and type of equipment they can use as well as the number of fishing days allowed, so they require a larger crew to harvest the same volume as some other species. The larger ships that fish the Bering Sea for pollock, for example, can get by with fewer crew while fetching higher total value because of the sheer mass of their catch. So while groundfish leads Alaska fisheries for poundage, groundfish harvesting represented just 1,163 jobs in 2016 compared to 4,714 for salmon.

Seasonal Job Pattern Is Consistent

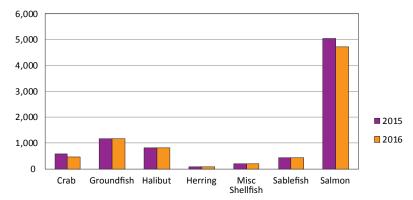
ALASKA, 2015 AND 2016



^{*}Historical average is over 16 years, since the data series began.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis
Section

Salmon Jobs Down, Others Stable

Alaska, total jobs by species, 2015 and 2016



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Crab fisheries also lose jobs

Crab harvesting's employment trend resembled that of salmon, growing in recent years and then declining to 464 in 2016. Losses were spread throughout the year, with fewer crab permits fished overall.

Crab fisheries shed 107 average jobs in 2016, a loss of 18.7 percent. This brought the fishery's employment to its lowest level since 2009 and below the 10-year average.

Other fisheries stable

Jobs in halibut, herring, sablefish and shellfish fisheries remained stable between 2015 and 2016. (See Exhibit 3.) All of these fisheries had lost jobs in the few

¹ "Groundfish" refers primarily to walleye pollock and Pacific cod. Although sablefish (or black cod) is considered groundfish, it is categorized separately in this article.

years prior before leveling off last year. While annual employment was stable in all of these fisheries, levels varied from month to month, with strong growth in some and declines in others.

Combined, these fisheries represent about 1,510 average jobs each year, with most in halibut and sablefish harvesting.

Regional employment

Southeast

Southeast continues to have the highest percentage of industry jobs in the state (see Exhibit 4), but its share declined again in 2016 due to small job losses in most of its fisheries and large losses in salmon. Southeast salmon employment went up by 14 jobs in 2015, then fell by 52 jobs in 2016.

Southeast lost fishing jobs overall for the third straight year in 2016, and losses were bigger than the year before. The region's harvesting employment dipped 0.8 percent in 2015 and then 2.3 percent in 2016, declining by 53 jobs to a total of 2,275.

While the larger fisheries lost employment, the smaller Southeast fisheries grew. Although those gains look impressive in terms of percent growth, the highest growth of 11.5 percent for the herring fishery translated to just seven additional jobs.

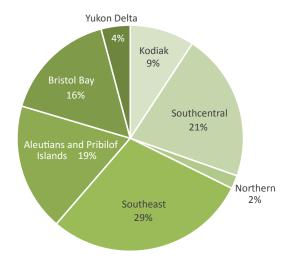
Southcentral

The Southcentral Region, which includes the Prince William Sound and Cook Inlet salmon fisheries and a halibut fleet, recorded the state's second-highest

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Southeast Has Largest Slice of Fishing Jobs

ALASKA REGIONS, 2016



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

total employment in 2016 and was the only region to gain fishing jobs over the year.

All of Southcentral's fisheries added jobs, even salmon, which makes up over three-quarters of Southcentral's harvesting employment.

Although Southcentral's salmon employment declined in June and July, other months' levels grew more, producing growth that was slight but still enough to produce record employment levels.

Continued on page 18

How we estimate fishing jobs

Unlike the employment numbers state and federal statistical agencies publish each month for wage and salary jobs, fish harvesting employment can't be estimated simply by asking employers how many people were on their payroll that month. Instead, we infer employment from landings — the initial sale of the catch.

Because of the way the fisheries are managed — by permits that are generally associated with a specific type of gear, including boat size — a landing under a certain permit requires about the same number of people, which 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 permit holders. So when crab is landed under that permit, we assume the permit generated six jobs that month.

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

This article's numbers are annual averages because, as with location, they come closest to payroll employment data. And because seafood harvesting employment is much higher in summer than winter, like tourism and construction jobs, averaging employment across all 12 months allows for more meaningful comparisons of job counts in different industries.

COMMERCIAL FISHING

Continued from page 6

Overall, Southcentral fisheries employment grew by about 1.4 percent in 2016, or 22 jobs, bring total average employment to 1,661.

Kodiak

Kodiak seafood harvesting employment fell by 8.5 percent in 2016, erasing the job gains of the few prior years.

While groundfish harvesting was stable on a state-wide level, Kodiak was one of the few areas to lose groundfish jobs. And, like most of the state, Kodiak's salmon employment fell in 2016. Kodiak lost 14.0 percent of its salmon harvesting employment, or 66 jobs.

Bristol Bay

Because Bristol Bay's harvesting employment is almost entirely in salmon, the region sustained the largest job losses in 2016.

Bristol Bay had fewer permit holders in 2016 as well as a later harvest. With that shift, August's employment was higher than the year before, but the bump wasn't enough to make up for job losses in June and July.

Bristol Bay's loss of 133 jobs, or 9.5 percent, brought its total employment down to 1,276.

Northern

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The Northern Region has just 150 seafood harvesting jobs, so even small losses can mean large percent decreases for the region. Northern Region's seafood harvesting employment fell by 4.4 percent from 2015, with the decline mainly in salmon — although

this amounted to a loss of just eight jobs.

Northern Region's crab fishery employment spiked, however, with 65 jobs in June after zero June jobs the year before and 49 in June of 2014.

Northern Region's other fisheries were down slightly or stable in 2016.

Yukon Delta

Ninety-two percent of the Yukon Delta's harvesting employment is in salmon fisheries, which took a hit in most areas of the state. The region lost 55 salmon harvesting jobs in 2016, a 15.5 percent decline.

With area groundfish harvesting employment stable at 22 jobs and the halibut fishery closed for the year, the region's harvesting employment was down 14.5 percent overall in 2016, to 325 total jobs.

Aleutians

The Aleutians and Pribilof Islands lost more than 122 fishing jobs in 2016, a 7.8 percent decline. Some months' employment was higher than the year before — January through April plus July — although gains were small and not enough to offset the losses in November and December, when employment plummeted to near-record lows.

Most of the area's job loss was in crab harvesting, with employment falling to below-average levels. The only fishery in the region to gain jobs was groundfish, but growth was small compared to the losses in salmon and crab harvesting employment.

For detailed seafood harvesting data, visit: http://live.laborstats.alaska.gov/seafood/.

Joshua Warren is an economist in Juneau. Reach him at (907) 465-6032 or joshua.warren@alaska.gov.