

A fisherman wearing a bright yellow raincoat and a dark hooded jacket is seen from the side, looking out over the ocean. The sky is a mix of blue and orange, suggesting a sunset or sunrise. The fisherman is holding onto a yellow rope. The overall scene is serene and captures the essence of the fishing industry in Alaska.

ALASKA ECONOMIC *TRENDS*

NOVEMBER 2023

Fishing jobs show a small decline

ALSO INSIDE

Fishing deaths continue
decades-long decrease

FROM THE COMMISSIONER

Career options are growing in the maritime sector

By Catherine Muñoz, Acting Commissioner

In this issue of *Trends* we explore Alaska's commercial fishing industry. Features include employment numbers by species and area and an update on fatality rates in commercial fishing, which have been decreasing since the early 1990s.

With more coastline than the rest of the states combined, Alaska has a wealth of career opportunities in the maritime sector. We also have some of the best maritime training in the country.

The University of Alaska and the Alaska Vocational Technical Center (AVTEC) have established a formal partnership called the Alaska Maritime Education Consortium. The U.S. Department of Transportation recognized AMEC as a Center of Excellence for Domestic Maritime Workforce Training and Education in 2021. Members include AVTEC, UAS Ketchikan, UAF Bristol Bay Campus, UAA Kodiak College, UAA Kenai Peninsula College, and UAA Prince William Sound College, plus the Alaska Safety Alliance as an affiliate member.

Career training through the consortium aligns with priority occupations in boat and ship building, vessel repair and maintenance, port maintenance, and vessel operations. Dozens of U.S. Coast Guard-approved courses are available to Alaskans interested in a maritime career, from 100-200 ton vessel captain training to certifications required for entry-level deckhands.

At AVTEC in Seward, courses include Advanced Fire Fighting, Basic Meteorology, Bridge Resource Management, Cargo Handling and Stowage, and much more.



State-of-the-art maritime simulators allow students to experience sea and port conditions at locales around the world. For instance, one can learn to maneuver a cargo ship into San Francisco Bay, or control a tug boat assisting an oil tanker in Prince William Sound in a simulation that mimics local weather and tidal conditions.

Another option for maritime training is through the [Seafarers International Union](#), which provides entry-level training apprenticeships to certifications and coursework for more experienced seafarers to help upgrade skills. In Anchorage, SIU can be reached at (907) 561-4988.

Alaskans depend on our waters for food, transportation, and recreation. The maritime sector represents Alaska's largest private employer with more than 500 firms statewide and a workforce of 70,000-plus people. Whether you are considering a career in the seafood industry or on the water in passenger and cargo transportation, Alaska has dozens of career options in these fields.

To get started, explore the [Alaska Safety Alliance's website](#) on maritime careers, or contact AVTEC at (907) 224-3322.

Sincerely,

A handwritten signature in black ink that reads "Catherine Muñoz".

Contact Acting Commissioner Catherine Muñoz at (907) 465-2700 or commissioner.labor@alaska.gov.



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ON THE COVER:

Longlining under lenticular clouds. This photo, taken by John Matzick, was part of the Alaska Region U.S. Fish and Wildlife Service's "Fish From Your Point of View" contest.

ALASKA

**DEPARTMENT of LABOR
and WORKFORCE
DEVELOPMENT**

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ALASKA ECONOMIC
TRENDS

4 A SMALL DECLINE
IN FISHING JOBS

10 FISHING DEATHS
ON LONG DECLINE

13 GAUGING
THE ECONOMY

Trends is a nonpartisan, data-driven magazine that covers a variety of economic topics in Alaska.

ON THIS SPREAD: The background image for 2023 is a flipped aerial view of tidal channels on the Copper River, taken by Flickr user Banco de Imágenes Geológicas. License: creativecommons.org/licenses/by-nc-sa/2.0/

If you have questions or comments, contact the authors listed at the end of each article or the editor at sara.whitney@alaska.gov or (907) 465-6561. This material is public information, and with appropriate credit it may be reproduced without permission. To sign up for a free electronic subscription, read past issues, or purchase a print subscription, visit labor.alaska.gov/trends.

Small job decline for fishing in 2022

Harvesting jobs down overall each year since 2020

By JOSHUA WARREN

While most Alaska industries have fully or partially rebounded from their pandemic job losses — including construction and tourism, which are also seasonal — seafood harvesting has continued to lose jobs. The number of harvesters fell by 118 in 2022, or about 1.8 percent.

Since 2019, seafood harvesting employment has dropped 17.3 percent, a decline that the summer peak also reflects. In 2019, July peaked at more than 23,000 fish harvesters. By last July, the annual high only reached 20,241, which was almost 400 below the previous summer. (See the sidebar on page 8 for how we estimate jobs.)

When COVID precautions were in place, vessels slightly reduced their crew numbers, but that level has returned to normal. However, some vessels stopped fishing during the pandemic and haven't returned. In 2019, nearly 4,600 boats fished for salmon, Alaska's most labor-intensive harvest. In 2022, it was just under 4,100.

Share of Alaska jobs dipped to 6%

Seafood harvesting still represents a significant share of Alaska's employment, although its weak performance relative to other sectors pulled the July share from 7.3 percent of statewide jobs down to 5.7 percent. (See the graphs at the bottom of the next page.)

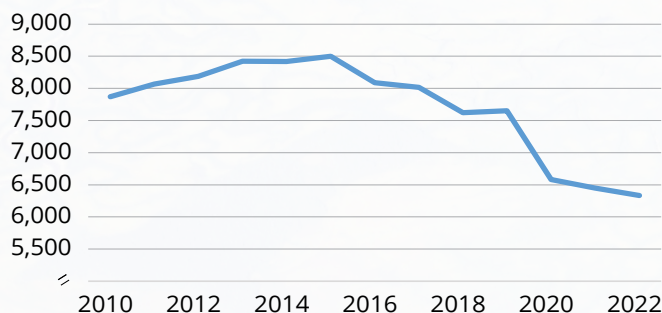
Still, when fishing and processing are combined, 10 percent of all summer jobs were directly related to seafood last year, and it's even higher when including jobs that indirectly support or are supported by the seafood industry.

Harvesters by species

Big drops for crab and other shellfish; halibut harvester count jumps 14 percent

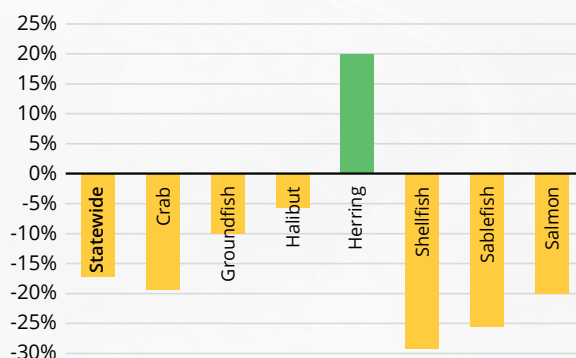
While all species' harvesting workforces were down

Alaska fishing jobs, 2010-2022



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

How jobs by species line up with pre-COVID levels*



*Percent change in jobs from 2019 to 2022
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

from their 2019 levels except the small herring fishery, just three of the seven lost harvesters from 2021 to 2022.

The halibut fishing workforce jumped 13.9 percent from 2021, which was the biggest gain. Two in the loss category, crab and miscellaneous shellfish, shed over 20 percent of their workforces in a single year.

Halibut's nearly 14 percent increase in jobs was its

biggest in recent history. Halibut fisheries' average of 1,011 jobs in 2022 was just 60 shy of its pre-pandemic count.

Before 2021, the number of crab harvesting jobs had been rising since the late 2010s and was nearly unscathed by the pandemic. Crab harvesting employment declined slightly in 2021 and then dropped precipitously after closures hit in 2022, shrinking the crab harvesting workforce by nearly 21 percent. The annual average job count in 2022 was just 346.

While crab harvesting is relatively steady throughout the year, the minor peak in February was about 18 percent lower than the year before.

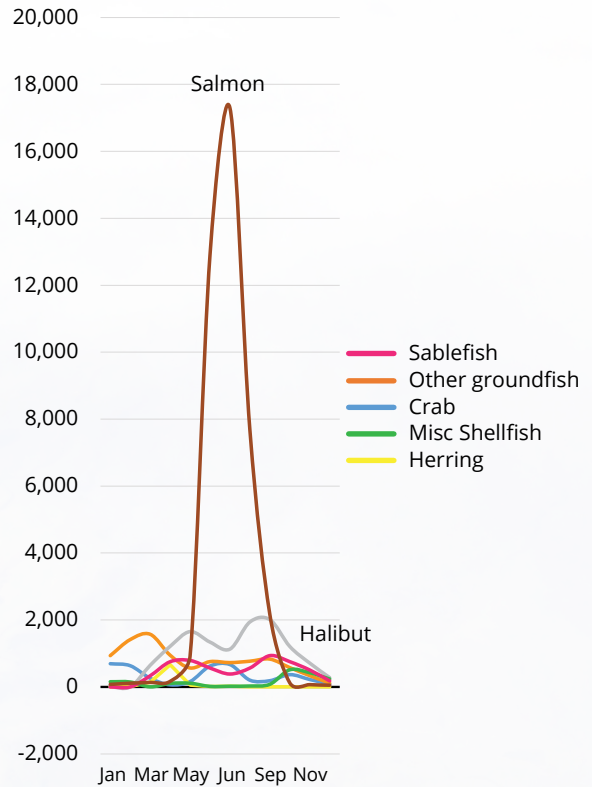
This pattern is unlikely to break in 2023, as we have yet to see the full impact of the snow crab closures that continued into this year, prompted by warming waters. That closure was announced in October 2022, shuttering the fishery for the winter and the season that followed. Fisheries managers had already closed the Bristol Bay red king crab fishery the year before after stock estimates plunged, and experts have estimated area king crab could take six to 10 years to recover to normal levels. Fishery managers recently approved a conservative opening for 2023, however.

Jobs harvesting other shellfish — mostly sea cucumber and shrimp — fluctuate most years. The yearly average depends on whether the harvest spreads into the edge months. Last year's 22.5 percent drop was outside that norm, however. The late-fall peak fell from almost 800 jobs to just over 500. October's shellfish harvesting workforce hadn't fallen below 750 jobs in at least 12 years.

Steady decline in salmon jobs since 2020

Salmon harvesters, the largest category by far, also decreased in 2022 and have been on a steady decline since the initial plunge that came with the pandemic.

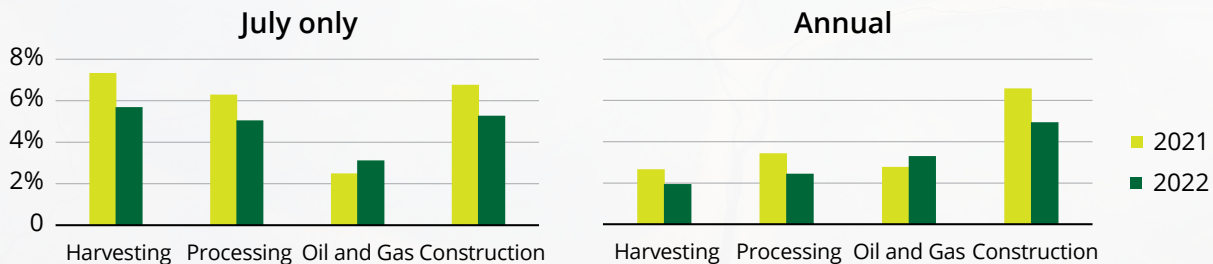
Salmon most seasonal by far



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

Since that 2020 drop, both the yearly average and the monthly peaks have decreased every year. The ongoing collapse of the Yukon Delta salmon fishery has been a large part of that downward trend, which the next section will cover in more detail, although other regions have also lost salmon fishing jobs. Only Bristol Bay and the Northern Region added salmon harvesters last year. (See the last page for more on other factors affecting salmon fisheries and what to watch this year.)

Fishing's share of Alaska's total jobs, yearly and at the July peak



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

Alaska's total seafood harvesters by month, 2001 to 2022

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Month avg |
|------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|-----------|
| 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 |
| 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 |
| 2020 | 1,975 | 2,296 | 2,983 | 3,113 | 4,020 | 16,286 | 20,917 | 12,325 | 7,310 | 5,104 | 2,193 | 473 | 6,583 |
| 2021 | 1,573 | 2,339 | 3,305 | 4,017 | 3,997 | 15,732 | 20,627 | 11,616 | 6,995 | 4,017 | 2,268 | 902 | 6,449 |
| 2022 | 1,853 | 2,312 | 3,085 | 3,908 | 4,244 | 16,210 | 20,241 | 11,172 | 6,203 | 3,534 | 2,269 | 945 | 6,331 |

Note: Because of a change in the way harvest jobs are calculated, data before 2010 are not comparable to data from 2010 forward.
Sources: Commercial Fisheries Entry Commission and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Sablefish job count began to rebound but groundfish remains short of full recovery

Harvesters of sablefish, or black cod, increased 4.8 percent last year, and the number of "other groundfish" harvesters rose 1.4 percent.

The monthly peak for other groundfish climbed 100 jobs over the previous year, and the sablefish peak rose as well, by about half that.

Both of these fisheries had been on a steep decline before COVID, and while that pattern reversed in 2022, neither workforce approached previous employment highs.

Herring the only fishery with more harvesters than before the pandemic

The herring fishery's workforce grew in 2022 and surpassed its 2019 levels, although herring is the smallest fishery in Alaska with just 76 annual jobs.

Most herring is caught in April, when employment shoots up over 600. In 2022, the peak hit 664, the highest in the last decade.

Harvesting jobs by Alaska region

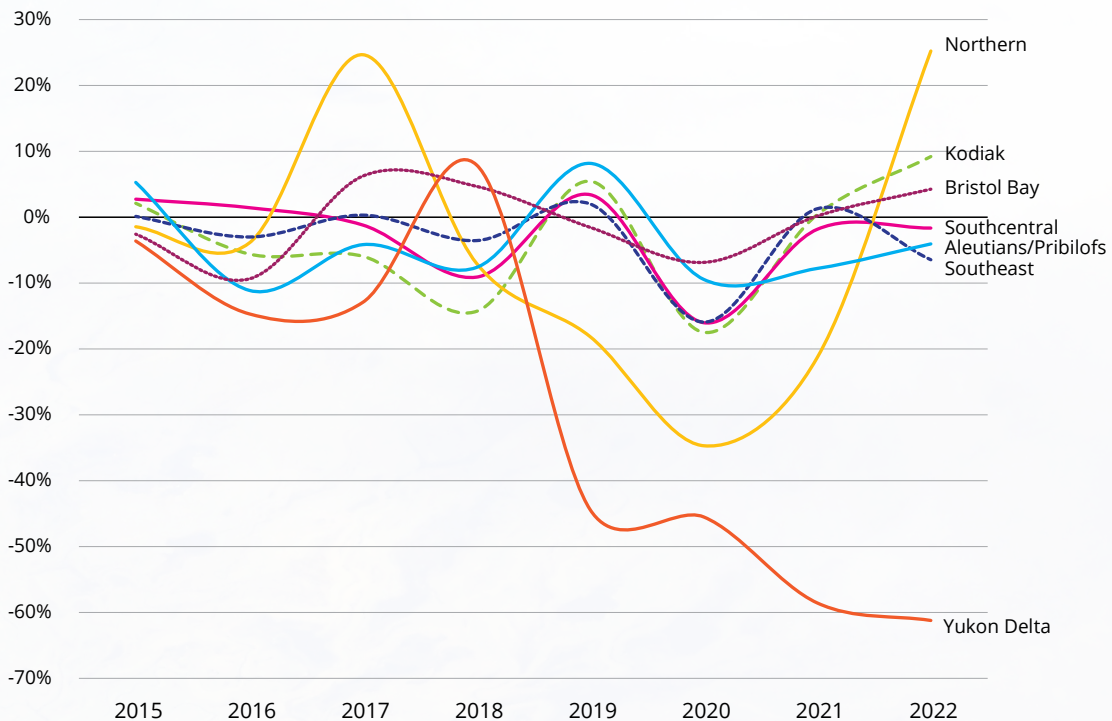
Most regions' harvesting employment held fairly steady last year, aside from the Yukon Delta's ongoing catastrophic loss and the Northern Region's robust growth. These two regions also have the smallest harvesting workforces, which makes them prone to dramatic swings. The Yukon Delta's salmon runs have dwindled, leading to the largest regional job loss last year (see the Yukon Delta section for more), and the Northern Region lost a lot of ground in 2021 but bounced back in 2022.

Aleutians and Pribilofs hit by crab closures

Harvesting employment in the Aleutian and Pribilof Islands continued a multi-year slide, dipping to 1,044 in 2022 from 1,088 the previous year. Most of those losses were in crab harvesting, which is just starting to reflect the blow of fishery closures and will certainly shrink further in 2023.

All of the region's other fisheries except salmon added jobs in 2022, and the Aleutians' herring workforce tripled at its yearly peak. The

Percent change in seafood harvesting jobs regionally



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

longer-term loss of salmon harvesting employment dwarfs those gains, however. The region's salmon fishing workforce is still about 60 jobs below its pre-pandemic level.

Bristol Bay adds jobs again

Bristol Bay, where salmon represents 99.7 percent of harvesting jobs, added jobs again last year, putting the region only 34 jobs below its pre-pandemic level.

Bristol Bay has about 1,350 average monthly jobs in salmon harvesting, and its summer peak hit 8,134 last year (it was 7,948 the year before).

Kodiak jump mainly from crab reopening

Kodiak harvests a range of species, and its seafood harvesting employment is spread throughout the year. The region's harvesting workforce jumped 9.4 percent in 2022, mainly from its crab fishery rebounding with vigor after nearing zero in 2021.

Kodiak's tanner crab fishery is cyclical, and 2021 was one of the years without enough harvestable males to open the fishery. The harvest resumed in 2022, prompting an employment bounce, and the fishery remained open in 2023.

Kodiak's halibut and other groundfish fisheries also added jobs. Salmon is the dominant harvesting employer, and while its workforce shrunk slightly, the peak month activity was higher.

Northern workforce no longer the smallest

The Northern Region is now the second-smallest for harvesting because of the Yukon Delta's massive losses. Northern harvesting employment grew 26 percent in 2022, which equated to additional 19 jobs over the year.

Some of the gains came from salmon because it requires such large crews, but like Kodiak, the Northern Region's crab fishery rebounded last year after dwindling to almost nothing in 2020 and 2021. Northern crab harvesters are almost back to pre-pandemic levels, but salmon harvesting has some ground to make up.

Southcentral job count essentially flat

Southcentral Alaska's harvester count was the most stable, with a modest decrease of 1.6 percent over the year. Employment for halibut and herring grew dramatically, enough that counts met or beat their 2019 levels, but salmon fishing employment dropped 8.5 percent from the previous year.

How we use landings to estimate seafood harvesting jobs

Unlike the wage and salary job numbers we and our federal partner the Bureau of Labor Statistics publish each month, data on the employment fish harvesting generates is not readily available. Harvesters are self-employed, and permit holders aren't required to report the number of people they employ in the same way as employers 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 it generated six jobs that month. We count each permit once per month regardless of the number of landings, which is similar to the way wage and salary employees 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 residence. Jobs generated under permits that allow fishing anywhere in Alaska receive a special harvest area code and are estimated and allocated 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, similar to tourism and construction, averaging employment across all 12 months allows for more meaningful comparisons among job counts in different industries.

Southcentral's salmon fishery is still about 300 jobs below 2019.

Southeast loses 6.5 percent in 2022

Southeast has the largest number of seafood harvesting jobs in the state, averaging 1,739 in 2022 with a summer peak of 3,523. That was a 6.5 percent decline from the year before, mostly because of salmon and crab harvesting, and the region

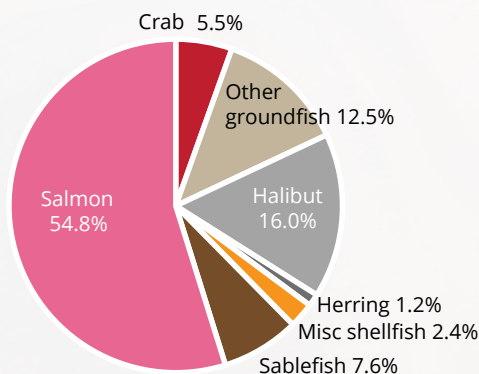
remains about 400 jobs below pre-pandemic levels.

Southeast's crab harvesting workforce dropped over 28 percent in a year. Dungeness crab season was short with no jobs in August, a month that would typically have about 300. Some Dungeness harvesters chose not to fish in the fall after a weak summer. Southeast red and blue king crab fisheries have been closed since 2017.

The second and third largest harvesting workforces in Southeast, halibut and sablefish, added jobs last year but they didn't offset the losses from crab.

Salmon harvesting was down throughout the summer, and Southeast salmon harvesters also fished a shorter season. Overall, the number of salmon harvesting jobs fell 8.4 percent over the year (-62 jobs).

Majority of fish harvesters catch salmon in Alaska



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

Yukon Delta remains at a crisis point

The Yukon Delta's harvesting job count has fallen over 40 percent each year since 2019, and 2022's drop was the largest yet at 60.5 percent. Salmon once provided over 94 percent of the Yukon Delta's fishing employment, but that number is now zero after jobs peaked at 1,044 in August 2018. A small number of groundfish harvesting jobs are all that remain.

While some biologists are optimistic that chum

salmon will return to the region, it would take a long time to regain those jobs, even under that best-case scenario.

Harvesting salmon in the Yukon area depends on the level of fish escapement in a given year. Treaties with Canada dictate that a certain number of fish must make it out of Alaska and into Canada's part of the river each year.

All species of salmon in the area have hit record lows in recent years, especially in 2021, making commercial fishing impossible in the area and dwindling enough to prohibit even subsistence harvesting, which is vital to the region, both for food and culturally.

Coho and chum escapement have improved slightly since 2021 but are still well below the levels necessary for a commercial harvest, especially because escapement didn't reach the levels necessary to reopen Yukon subsistence fisheries in 2022. Subsistence remained closed in 2023 except in one small Yukon tributary.

Low prices and Russia flooding the market are big factors in 2023

So far in 2023, few signs point to a reversal of the downward trend in fishing jobs. Snow crab closures will likely prompt big ongoing job losses this year, and while prices and job levels don't typically move together, prices for salmon and sablefish have

dropped significantly.

Last year's massive salmon harvests — especially sockeye, which by poundage was the largest sockeye harvest since the 1970s — and high prices have had downstream effects on the supply and demand for 2023 salmon harvests.

Some of the 2022 stock has carried over into this year, driving prices down and compounding the

oversupply caused by Russia flooding the market at below-basement prices. Sablefish prices have also dropped this year because of a glut compounded by the Russian oversupply.

At the same time, economic trouble and wars around the world have depressed the demand for seafood products, and inflation has increased processors' costs.

While the United States has now banned the import of Russian seafood, the ban covers only unaltered seafood originating in Russia. Russian harvests sent to another country for processing can still enter the U.S. market, and this is especially prevalent in pollock and salmon fisheries, enabling Russia's low prices to continue depressing Alaska's fisheries.

Together, these drastic price reductions have prompted some harvesters to pull up their nets early or skip openings entirely in 2023.

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

Fishing deaths continue to decline

Commercial fatalities down 50+ percent over 3 decades

By TRACY ERICKSON

The seafood industry in Alaska generates billions of dollars each year, but the substantial economic benefits of commercial fishing come with physical risks. Seafood harvesters face a range of hazards, including extreme weather, unpredictable ocean swells, heavy gear, frigid ocean temperatures, and grueling work.

While it remains a dangerous profession, fishing has gotten steadily safer over the last three decades. The total number of commercial fishing fatalities in Alaska fell 50.6 percent from the 1990s to the 2010s. (See the graph on the right.)

The percentage of total workplace deaths in Alaska that came from fishing also decreased, from 32 percent from 1992-1999 to 22 percent in 2020-2021. (For more on the Census for Fatalities and Occupational Injuries, see the sidebar on page 12.)

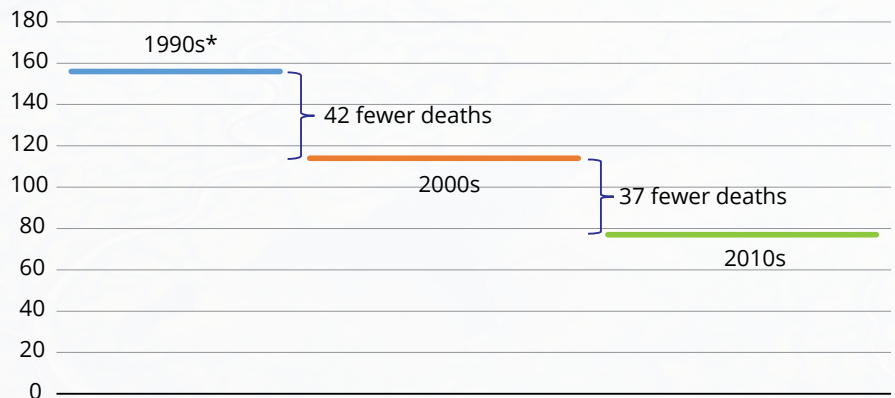
Decreases in fishing deaths and share of total workplace deaths

During the 1990s, commercial fishing's average fatality rate was 20 per year, accounting for 32 percent of all Alaska workplace deaths.

The number of fishing deaths fell in the decade that followed, to an average of 11 per year. Seafood harvesting still represented 30 percent of all deaths at work during the 2000s, but Alaska's total had also dropped from the previous decade, from an average of 62 per year to 38.

The average fell again from 2010-2019, to eight

Alaska's total fish harvesting deaths decrease



*This data set began in 1992.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section and Bureau of Labor Statistics, Census of Fatal Occupational Injuries

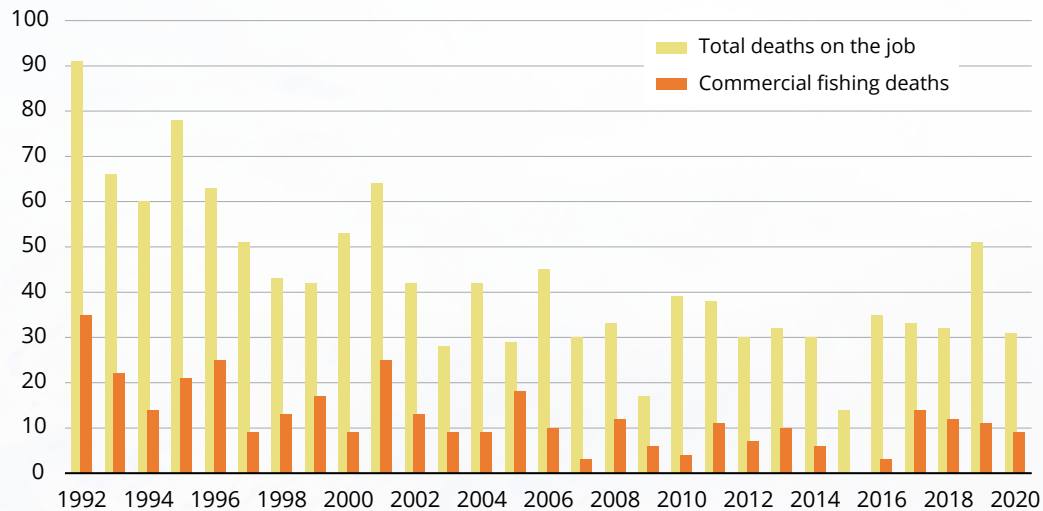
commercial fishing deaths annually, making up 23 percent of all Alaska workplace fatalities. While that's still a significant share for a single industry, commercial fishing is no longer the biggest contributor. In most years since 2015, the largest percentage of Alaska workplace deaths has come from transportation.

Over the last three decades, 1992 had the highest number of fishing deaths at 35. The lowest was zero in 2015, the only year in that span with no harvesting fatalities.

Measures that have reduced fishing fatality rates over time

Multiple regulatory bodies oversee every aspect of commercial fishing, from harvests and openings to the safety of harvesters and vessels. Over the last few decades, several new safety regulations and interventions for specific fisheries have promoted a steady decline in seafood harvesting deaths.

Fishing and total workplace deaths in Alaska since 1992



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section and Bureau of Labor Statistics, Census of Fatal Occupational Injuries

The Magnuson-Stevens Act

The Magnuson-Stevens Fishery Conservation and Management Act is the primary law that governs marine fisheries management in federal waters. The act was first passed in 1976, and in 1996, it added National Standard 10, to which all fisheries management plans conform, with the intent to promote the safety of life at sea "to the extent practicable."

The North Pacific Fishery Management Council oversees Alaska and develops these fisheries management plans in consultation with the Coast Guard, with specific requirements for each region's fishery that are subject to approval by the U.S. Secretary of Commerce.

The National Marine Fisheries Service, part of the National Oceanic and Atmospheric Administration, oversees enforcement.

The Commercial Fishing Vessel Safety Act

The Commercial Fishing Industry Vessel Safety Act of 1988 requires the U.S. Coast Guard to inspect all commercial fishing vessels once every five years, although the Coast Guard recommends once every

two years. Safety requirements vary by vessel size, proximity to the coastline, and water temperatures, and include personal and throwable flotation devices, survival crafts and their stowage, markings, running lights, distress signals, fire suppression equipment, emergency position-indicating radio beacons, waste management plans,

Coast Guard placards on injury and spill reporting, communication and navigation equipment, vessel alarms, and first aid supplies.

Quota systems for crab, sablefish

In 1995, the Alaska halibut and sablefish fisheries implemented an individual fishing quota

management regime, as recommended by the North Pacific Fishery Management Council, which shifted them away from derby-style openings.

While the main purpose for the change was conservation, a quota system sets an allowed amount of fish per season and gives fishermen more time to harvest their catch as opposed to a derby, where they try to catch as much as possible during an opening.

Some fishing fleets have reduced their size because of the quota system. A decrease in halibut

Salmon fisheries have the lowest harvesting death rates. By salmon species, the highest rate is for drift gillnetters, followed by set gillnetters and commercial trollers.

About the occupational fatalities data

The Bureau of Labor Statistics began conducting annual surveys in 1972 to estimate injuries, illnesses, and fatalities at work. Subsequent analyses showed traumatic occupational fatalities were underreported, and widely varying estimates raised concern about using a sampled survey to estimate deaths. In response, BLS and state agencies developed the Census of Fatal Occupational Injuries, implementing it in all states and the District of Columbia in 1992.

CFOI maintains a complete count of worker fatalities and analyzes them in detail. The program relies primarily on death certificates, newspaper articles, reports from federal and state agencies, and workers' compensation records. It includes employer characteristics, fatality details, and demographic information about the deceased while keeping any identifying information confidential. Because the data are so specific, they're especially useful to policymakers, researchers, concerned employers and workers, unions, trade organizations, and safety equipment manufacturers.

CFOI records any job-related death in Alaska, even if the worker was not a resident or didn't work for an Alaska-based company. These deaths include homicides, suicides, transportation accidents, contact with objects, falls, and exposure to harmful substances. Natural deaths that happen at work, such as heart attacks, are not part of the record.

fishing deaths also followed this change, although a direct cause and effect couldn't be determined.

Bering Sea/Aleutians crab fleet checks

One of the more notable policies that improved seafood harvesting safety was created for the Bering Sea/Aleutian Islands crab fleet.

In 1999, a federal safety report determined the main cause of death in the fleet was drowning, as the vessels would become overloaded with crab pots and ice and then capsize.

The fishery began preseason dockside stability and safety checks, a program that assessed vessel pot load before departure. The fleet's death rate fell from eight per year to less than one.

The Bering Sea crab fishery also changed from derby-style openings to a quota system in 2005, which extended the season, consolidated the fleet, and allowed for smaller pot loads as well as more experienced and less fatigued crew members.

Permit holders with quota shares can pool the harvest on fewer vessels, allowing more experienced workers to be out on the boats crabbing. The quota system's extended openings also give deckhands more time at sea.

Agreement for freezer trawlers, longliners

The Alternate Compliance Safety Agreement was created in 2006 to address the additional dangers of working on freezer trawlers and freezer

longliners. This Coast Guard initiative addressed multiple issues, but the most prominent was the overall condition of vessels' hulls and their stability.

While other trawlers and longline vessels deliver their catches to a tender or processing plant, freezer trawlers and longliners have factories aboard to process and store the fish. They have larger crews and remain at sea longer, operating in remote areas of the Bering Sea where rescues are difficult. Freezers come with the additional risks of fires and explosions as well as exposure to toxic gases such as anhydrous ammonia or Freon.

Both types of vessels' death rates fell after compliance, and a federal longitudinal study found that all types of accidents had also declined on these boats.

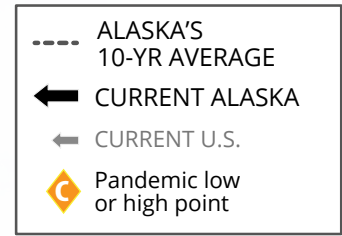
Multiple layers of Fish and Game measures

The Alaska Department of Fish and Game's multiple safety measures include daytime-only openings, delays in openings when weather is dangerous, limits on salmon net lengths and size, and sharing of information with Alaska State Wildlife Troopers and the Coast Guard to ensure their presence in areas where fishing fleets are concentrated.

Fish and Game also partners with the National Marine Fisheries Service, the North Pacific Fishery Management Council, and other stakeholders to reduce duplicate efforts and regulations.

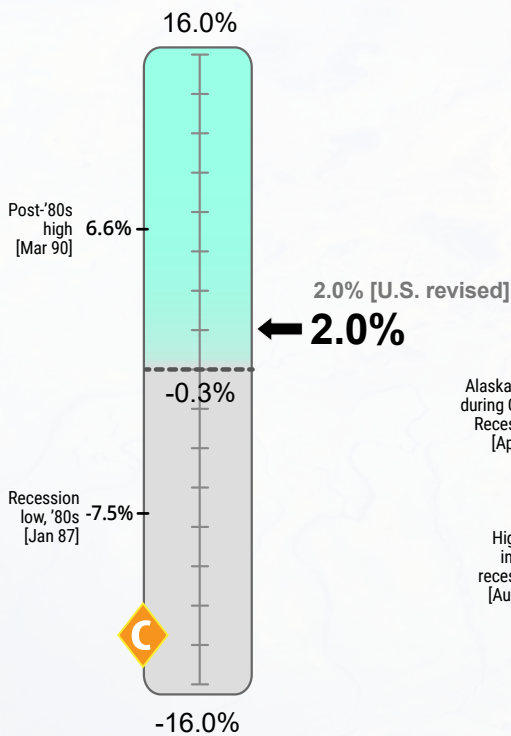
Tracy Erickson is a research analyst in Juneau. Reach her at (907) 465-6042 or tracy.erickson@alaska.gov.

Gauging The Economy



Job Growth

September 2023
Over-the-year percent change



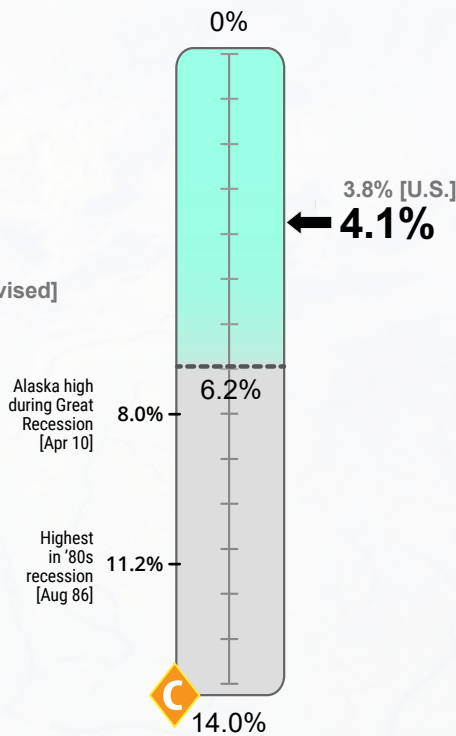
Alaska's September employment was 2.0 percent above last September but still 2.1 percent below September 2019, an important reference point because that was a pre-pandemic employment level.

National employment, which was up 2.1 percent from September 2022, was 3.6 percent above its 2019 level.

In other words, while the U.S. economy has fully recovered from COVID-related job losses, Alaska still has a ways to go.

Unemployment Rate

September 2023
Seasonally adjusted

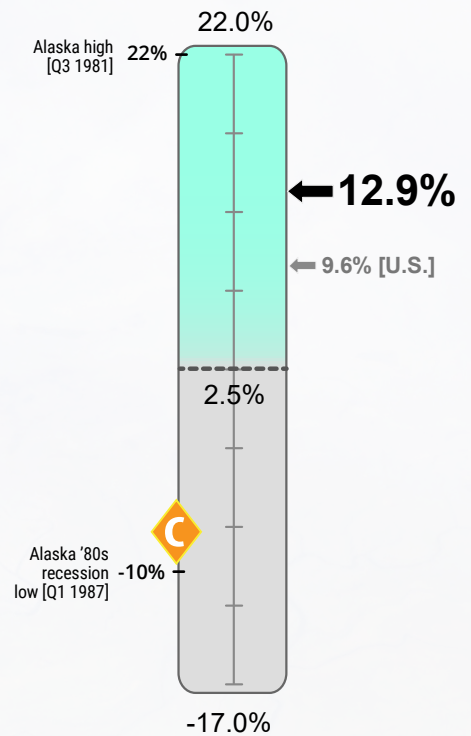


Alaska's unemployment rate has been less useful as an economic measure during the pandemic and its aftermath because of data collection difficulties.

It's clear, however, that unemployment rates in Alaska and the U.S. are historically low and that the shortage of workers is a bigger economic challenge than unemployment.

Wage Growth

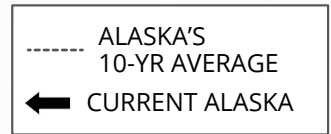
1st Quarter 2023
Over-the-year percent change



After falling hard during the pandemic, total wages paid by Alaska employers have bounced back and show strong growth.

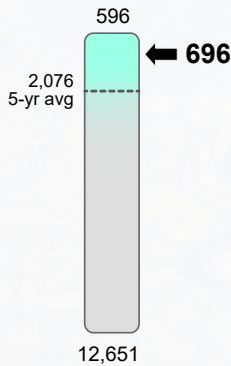
Wages were up 12.9 percent from year-ago levels in the first quarter of 2023 and 16.6 percent above first quarter 2019.

Gauging The Economy



Initial Claims

Unemployment, week ending Oct. 7, 2023*

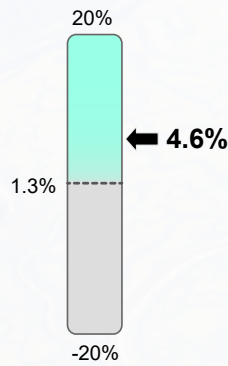


Unemployment claims jumped during the pandemic as many businesses shut down or limited services. Pandemic-driven claims loads have fallen, and new claims for benefits are well below their long-term average.

*Four-week moving average ending with specified week

GDP Growth

1st Quarter 2023
Over-the-year percent change*

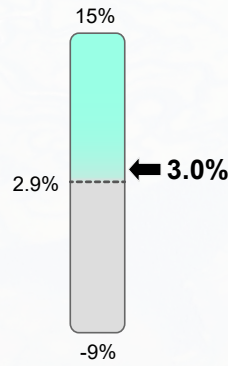


Gross domestic product is the value of the goods and services a state produces. It's an important economic measure but also a volatile one for Alaska because commodity prices influence the numbers so much — especially oil prices.

*In current dollars

Personal Income Growth

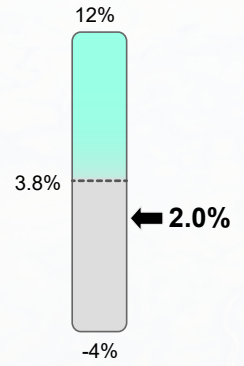
2nd Quarter 2023
Over-the-year percent change



Personal income consists of three main parts: 1) wages and salaries; 2) dividends, interest, and rents; and 3) transfer payments (payments from governments to individuals).

Change in Home Prices

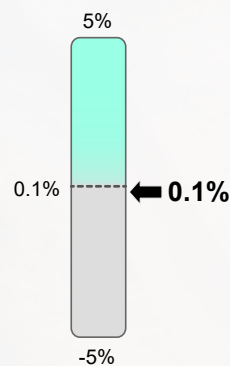
Single-family, percent change from prior year, Q2 2023*



Home prices shown include only those for which a commercial loan was used. This indicator tends to be volatile from quarter to quarter.

Population Growth

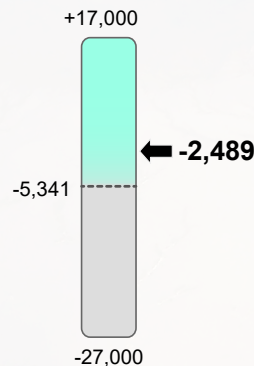
2021 to 2022



After four years of decline, Alaska's population grew slightly in 2021 and 2022, as natural increase (births minus deaths) slightly exceeded losses from migration.

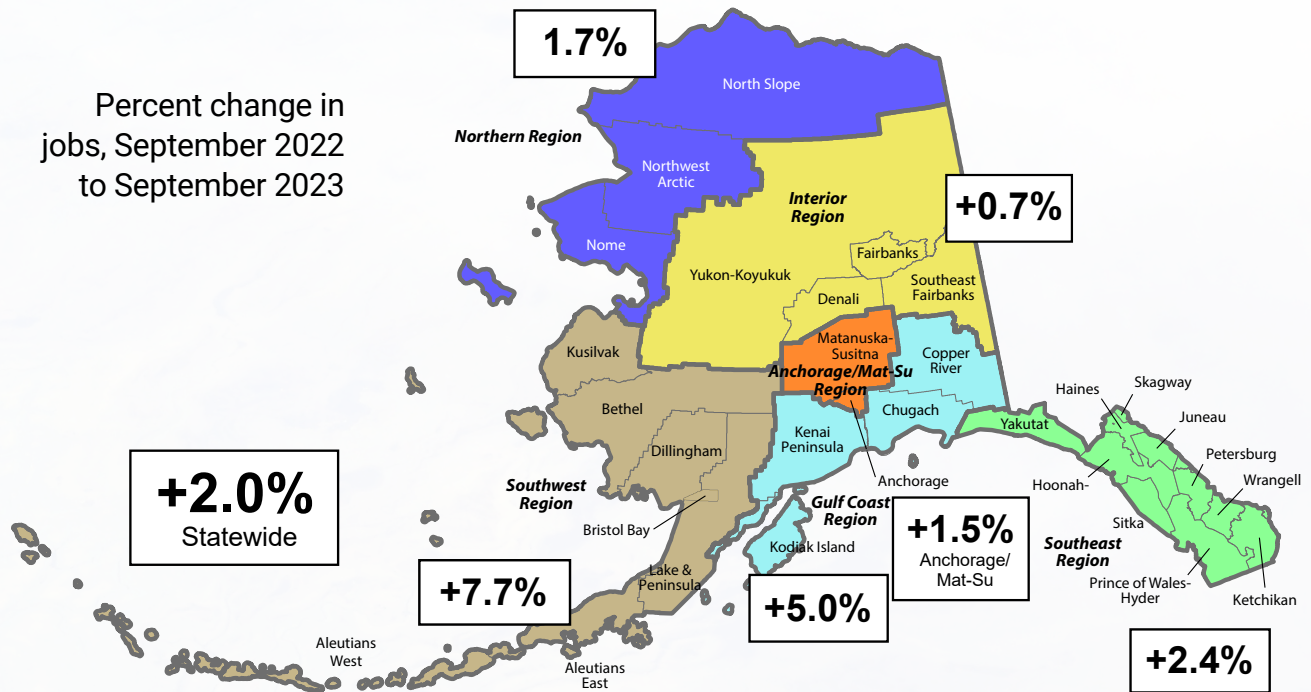
Net Migration

2021 to 2022



The state had net migration losses for the tenth consecutive year in 2022, although the losses have become smaller. Net migration is the number who moved to Alaska minus the number who left.

Employment by Region



Unemployment Rates

Seasonally adjusted

| | Prelim. | | Revised |
|---------------|---------|------|---------|
| | 9/23 | 8/23 | 9/22 |
| United States | 3.8 | 3.8 | 3.5 |
| Alaska | 4.1 | 3.9 | 3.7 |

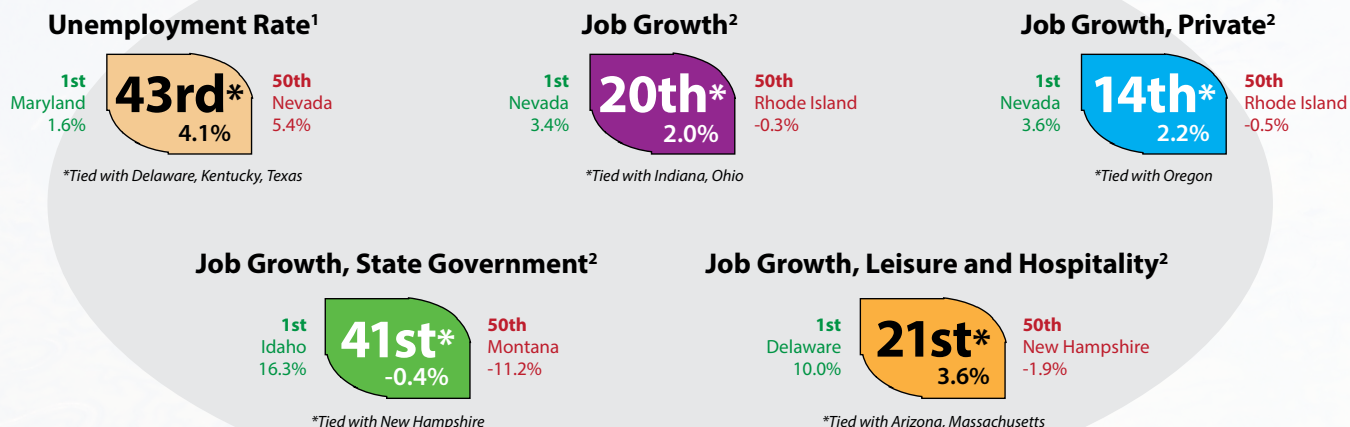
Not seasonally adjusted

| | Prelim. | | Revised |
|---------------|---------|------|---------|
| | 9/23 | 8/23 | 9/22 |
| United States | 3.6 | 3.9 | 3.3 |
| Alaska | 4.0 | 3.7 | 3.0 |

Regional, not seasonally adjusted

| | Prelim. | | | Revised | | | | Prelim. | | | Revised | | |
|---------------------------------|------------|------------|------------|------------|------------|------------|-----------------------------------|------------|------------|------------|------------|------------|------------|
| | 9/23 | 8/23 | 9/22 | 9/23 | 8/23 | 9/22 | | 9/23 | 8/23 | 9/22 | 9/23 | 8/23 | 9/22 |
| Interior Region | 3.9 | 3.6 | 2.8 | 3.9 | 3.6 | 2.8 | Southeast Region | 3.3 | 3.0 | 2.4 | 3.3 | 3.0 | 2.4 |
| Denali Borough | 2.9 | 2.5 | 2.6 | 2.9 | 2.5 | 2.6 | Haines Borough | 4.7 | 4.2 | 3.7 | 4.7 | 4.2 | 3.7 |
| Fairbanks N Star Borough | 3.6 | 3.2 | 2.6 | 3.6 | 3.2 | 2.6 | Hoonah-Angoon Census Area | 3.1 | 2.9 | 2.9 | 3.1 | 2.9 | 2.9 |
| Southeast Fairbanks Census Area | 5.0 | 5.2 | 3.6 | 5.0 | 5.2 | 3.6 | Juneau, City and Borough | 2.9 | 2.6 | 2.0 | 2.9 | 2.6 | 2.0 |
| Yukon-Koyukuk Census Area | 8.8 | 8.5 | 6.0 | 8.8 | 8.5 | 6.0 | Ketchikan Gateway Borough | 3.2 | 2.9 | 2.5 | 3.2 | 2.9 | 2.5 |
| Northern Region | 7.2 | 7.1 | 6.0 | 7.2 | 7.1 | 6.0 | Petersburg Borough | 4.2 | 4.0 | 4.3 | 4.2 | 4.0 | 4.3 |
| Nome Census Area | 7.4 | 7.6 | 5.7 | 7.4 | 7.6 | 5.7 | Prince of Wales-Hyder Census Area | 5.7 | 6.3 | 4.4 | 5.7 | 6.3 | 4.4 |
| North Slope Borough | 5.4 | 4.8 | 4.4 | 5.4 | 4.8 | 4.4 | Sitka, City and Borough | 2.7 | 2.4 | 1.8 | 2.7 | 2.4 | 1.8 |
| Northwest Arctic Borough | 9.0 | 8.6 | 8.0 | 9.0 | 8.6 | 8.0 | Skagway, Municipality | 1.8 | 2.2 | 2.5 | 1.8 | 2.2 | 2.5 |
| Anchorage/Mat-Su Region | 3.7 | 3.4 | 2.8 | 3.7 | 3.4 | 2.8 | Wrangell, City and Borough | 4.3 | 4.0 | 3.3 | 4.3 | 4.0 | 3.3 |
| Anchorage, Municipality | 3.5 | 3.2 | 2.6 | 3.5 | 3.2 | 2.6 | Yakutat, City and Borough | 5.2 | 5.4 | 3.7 | 5.2 | 5.4 | 3.7 |
| Mat-Su Borough | 4.3 | 4.1 | 3.3 | 4.3 | 4.1 | 3.3 | | | | | | | |
| Southwest Region | 7.6 | 6.9 | 5.7 | 7.6 | 6.9 | 5.7 | | | | | | | |
| Aleutians East Borough | 2.0 | 1.7 | 1.6 | 2.0 | 1.7 | 1.6 | | | | | | | |
| Aleutians West Census Area | 3.0 | 2.2 | 3.3 | 3.0 | 2.2 | 3.3 | | | | | | | |
| Bethel Census Area | 9.9 | 10.0 | 7.5 | 9.9 | 10.0 | 7.5 | | | | | | | |
| Bristol Bay Borough | 4.4 | 2.4 | 3.0 | 4.4 | 2.4 | 3.0 | | | | | | | |
| Dillingham Census Area | 6.8 | 6.1 | 4.3 | 6.8 | 6.1 | 4.3 | | | | | | | |
| Kusilvak Census Area | 14.5 | 16.6 | 10.2 | 14.5 | 16.6 | 10.2 | | | | | | | |
| Lake and Peninsula Borough | 5.0 | 4.7 | 3.9 | 5.0 | 4.7 | 3.9 | | | | | | | |
| Gulf Coast Region | 4.1 | 3.6 | 3.1 | 4.1 | 3.6 | 3.1 | | | | | | | |
| Kenai Peninsula Borough | 4.2 | 3.8 | 3.2 | 4.2 | 3.8 | 3.2 | | | | | | | |
| Kodiak Island Borough | 3.9 | 3.0 | 2.7 | 3.9 | 3.0 | 2.7 | | | | | | | |
| Chugach Census Area | 3.4 | 2.5 | 2.0 | 3.4 | 2.5 | 2.0 | | | | | | | |
| Copper River Census Area | 5.9 | 4.9 | 6.3 | 5.9 | 4.9 | 6.3 | | | | | | | |

How Alaska Ranks



Note: State government employment includes the University of Alaska.

¹September seasonally adjusted unemployment rates

²September employment, over-the-year percent change

Sources: U.S. Bureau of Labor Statistics; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Other Economic Indicators

| | Current | Year ago | Change |
|--|------------|------------|--------|
| Urban Alaska Consumer Price Index (CPI-U, base yr 1982=100) | 257.938 | 252.271 | +2.2% |
| Commodity prices | | | |
| Crude oil, Alaska North Slope, * per barrel | \$95.05 | \$92.43 | +2.8% |
| Natural gas, Henry Hub, per thousand cubic feet (mcf) | \$2.70 | \$7.76 | -65.2% |
| Gold, per oz. COMEX | \$1,994.40 | \$1,636.80 | +21.8% |
| Silver, per oz. COMEX | \$23.53 | \$18.69 | +25.9% |
| Copper, per lb. COMEX | \$3.56 | \$3.41 | +4.5% |
| Zinc, per lb. | \$1.08 | \$1.34 | -19.4% |
| Lead, per lb. | \$0.96 | \$0.87 | +10.3% |
| Bankruptcies | | | |
| | 70 | 49 | +42.9% |
| Business | 6 | 4 | 50% |
| Personal | 64 | 45 | +42.2% |
| Unemployment insurance claims | | | |
| Initial filings | 3,094 | 3,217 | -18.9% |
| Continued filings | 13,550 | 13,719 | -8.5% |
| Claimant count | 3,905 | 3,528 | -2.3% |

*Department of Revenue estimate

Sources for this page and the preceding three pages include Alaska Department of Labor and Workforce Development, Research and Analysis Section; U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; U.S. Energy Information Administration; Kitco; U.S. Census Bureau; COMEX; NASDAQ; Alaska Department of Revenue; and U.S. Courts, 9th Circuit

EMPLOYER RESOURCES

Alaska Seafood Office is ready to meet your needs

The main Alaska Seafood Office, housed in the Anchorage Midtown Job Center, is ready to meet all of your seafood industry workforce needs at no cost.

We help you create job orders in AlaskaJobs and publish flyers and post job openings online, on Facebook, via email distribution list, in press releases, via outreach with community partners and schools, and even on the radio.

Seafood Office staff provide orientation and skills assessments to refer the best qualified applicants to your seafood industry jobs and can identify applicants' rehire status.

You can also take advantage of the Traveling Seafood Workforce Program to identify and recruit experienced Alaskan workers who have completed contracts in compatible jobs.

The Seafood Office can assist you with customized job fairs and recruitments, including providing meeting spaces in Anchorage and interview rooms in most Alaska job centers. We can also coordinate recruitments in rural areas.

You can attend industry-specific workshops for labor laws, hiring incentives, and market information; network with other employers, get apprenticeship and training assistance and information for your hard-to-fill jobs; and receive the Seafood Employment Report to help you plan recruitments and participate in upcoming job fairs.

Contact dol.seafood@alaska.gov or call (800) 473-0688 or (800) 770-8973 Relay Alaska today.

Employer Resources is written by the Employment and Training Services Division of the Alaska Department of Labor and Workforce Development.

SAFETY MINUTE

How to create a school violence prevention program

Many of you remember attending school without worrying about donning a hat or a hoodie, carrying a backpack, having your locker searched, or even going through metal detectors. The rise of violence in schools, and particularly gun violence, has changed how they operate. Security personnel, security video, sign-in/sign-out procedures, metal detectors, and dress codes are just some of the controls in use at schools today.

OSHA only has a general definition for workplace violence, which is "any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site." This can be in the form of threats, verbal abuse, physical assaults, or homicide. More specific examples include shooting, bullying, fighting, sexual harassment, and intimidation.

While OSHA doesn't address school violence directly, the agency's General Duty Clause in 29 U.S.C. 654(a)(1) dictates that employers must

provide all of their workers a place of work and work activities that are free from recognized hazards that are causing or are likely to cause death or serious physical harm.

OSHA's guidelines for addressing workplace violence in health care and retail include five elements that can also apply to creating site-specific school violence prevention programs. Click [here](#) and [here](#) for samples.

For more information about school violence and the development and implementation of an effective school violence prevention program, please contact AKOSH Consultation & Training at (907) 269-4950 or [submit a consultation request here](#).

Safety Minute is provided by the Alaska Occupational Safety and Health Consultation and Training Section of the Department of Labor and Workforce Development. For more information on keeping your employees safe, please visit labor.alaska.gov/lss/oshhome.htm.