

ALASKA ECONOMIC TRENDS

DECEMBER 2020



Restaurants, bars
hit hard this year



ALSO INSIDE

TO MOVE OR NOT?

Imperiled Alaska villages
face tough, costly choices

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ON THE COVER:

Meghan Garrison tends bar at
Forbidden Peak Brewery
in Juneau on Nov. 17.
Photo by Kim Andree Jones

A block of permafrost collapses
into the water along the
Drew Point bluffs.
Public domain photo by
U.S. Geological Survey

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ALASKA ECONOMIC TRENDS

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Trends is a nonpartisan, data-driven magazine
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ON THIS SPREAD: The background image for 2020 is the aurora borealis in the Arctic in Alaska, taken by Noel Bauza.

Restaurants and bars in 2020

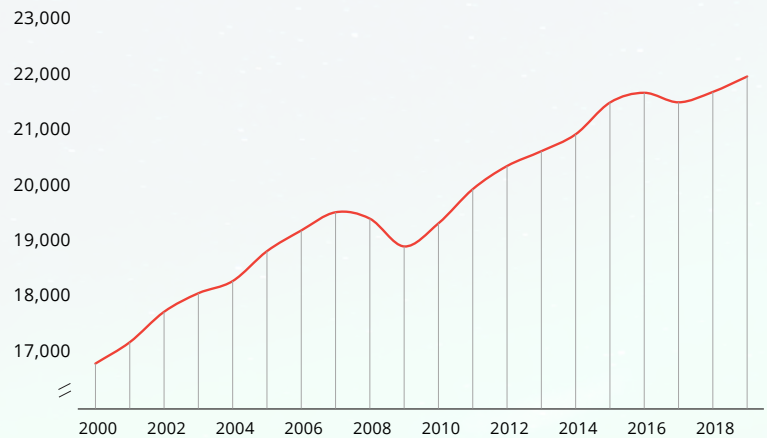
Industry hit hardest by the pandemic continues to struggle

By NEAL FRIED

Until recently, eating and drinking had been one of the state's growing industries, forecasted to benefit this year from a recovering economy and a tourism season set to break records. Now it tops the list of Alaska industries struggling the most during the ongoing pandemic.

Bars and restaurants continue to seesaw between closures and openings while coping with changing demand and ways of doing business. Some are also trying to stay afloat this winter after a summer visitor season that never materialized.

Eating and drinking industry grew for years



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

Job loss extreme in April

The industry grew almost uninterrupted over the past decade. Employment in eating and drinking establishments increased 1.5 percent per year on average, compared to 0.3 percent for all Alaska

employment. The industry added 2,701 jobs from 2010 to 2019, and the number of businesses grew from 1,305 to 1,500. (See the sidebar below for the types of jobs the industry includes.)

In March, Alaska had 19,751 jobs in eating and

The types of businesses this industry includes

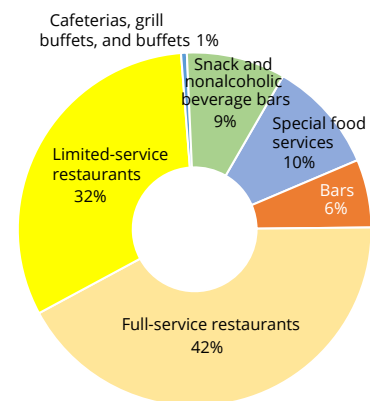
These data include almost any business that prepares and serves food and drink. Three-quarters of the jobs in "eating and drinking" are in full-service, sit-down restaurants — including those with on-site bars — and limited service restaurants such as fast food. Stand-alone bars make up about 6 percent.

About 10 percent of jobs are in "special food services," which in Alaska are largely caterers and contractors at remote sites such as the North Slope.

Nine percent are in snack and

nonalcoholic beverage bars such as coffee shops, ice cream parlors, donut shops, and snack bars. Coffee shops are the biggest part of this group by far. Finally, the industry has a small number of jobs in cafeterias and buffets.

A few major players are missing from these numbers, even if food service is a big share of their work or profits. Restaurants and bars in hotels are categorized as hotel employment. Food service jobs in supermarkets and gas stations are also excluded.



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

drinking, which is mainly restaurants and bars. The industry typically adds another 500 to 1,000 jobs every April. But this year, as the pandemic disrupted life and business across the globe, 8,000 of the industry's jobs vanished almost instantly. April recorded just 11,720 — the fewest since January 1993.

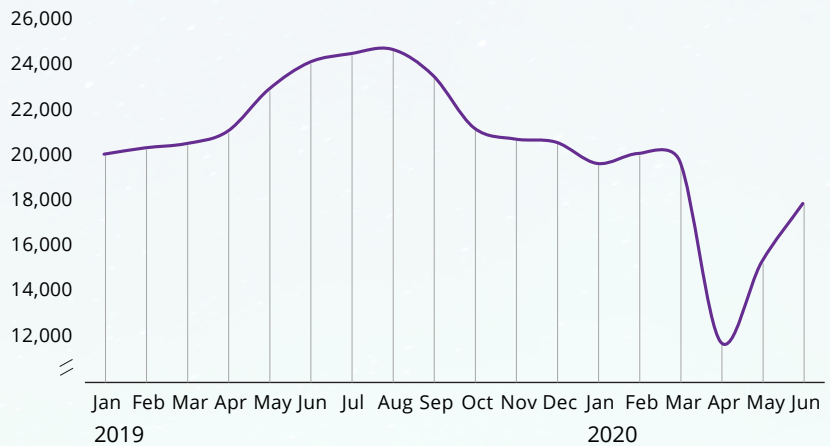
Eating and drinking represented about 20 percent of the 38,244 total jobs Alaska lost this April.

Industry's jump in claims was similar

The number of unemployment claims tied to eating and drinking workers further illustrates the speed and depth of the job losses. Starting in mid-March, the industry produced the highest number of new claims among industries — it's typically around seventh — and it remained in that top spot through at least October.

During the week ending March 8, 296 people who had been working in eating and drinking filed a new claim for unemployment insurance benefits. That jumped to 9,149 just a week later. For comparison, the same week in 2019 recorded just 17 initial claims by these workers.

... until the pandemic-induced plunge in April

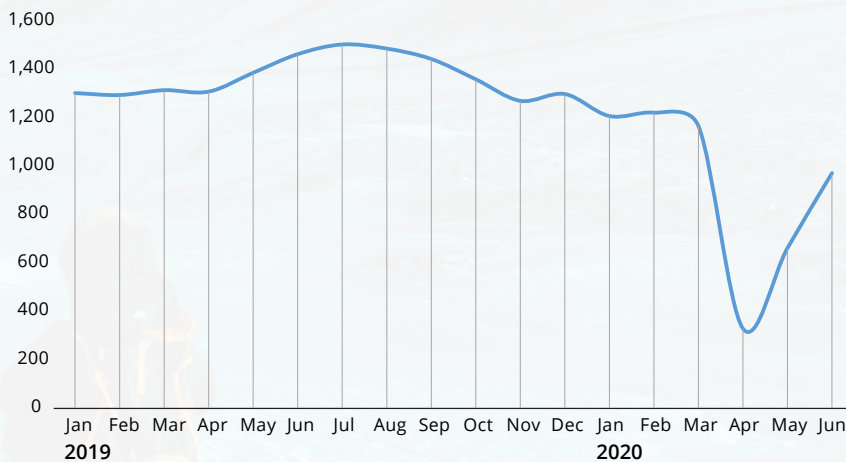


Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

New claims fell each week after that, and in August they finally dropped below 100 per week for the first time since the pandemic began. That was still historically high — August 2019 averaged just 12 per week.

By October, the numbers of new filers had dropped down to typical levels, but continuing claims kept the total claims load more than eight times higher than last October.

Bars lost three-fourths of their jobs in April 2020



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

Bars hit hardest, and takeout places recovered modestly

Bars suffered the steepest loss in percent terms, losing over two-thirds of their jobs between March and April as many areas ordered them to close. Bar employment has recovered somewhat since then but remains at historical lows.

Full-service restaurants lost the most jobs numerically, down 4,800 in April, and they too have rebounded some.

Losses in limited-service restaurants, such as fast food,

were moderate in comparison. Many remained open and smoothly transitioned to takeout, and others were already takeout-based. Coffee shops also lost fewer jobs and bounced back faster.

Losses heavier in areas that depend on tourism

Places with more tourism lost larger shares of their eating and drinking employment this year, although nonresidents often hold many of those jobs. Second-quarter industry employment in the Denali Borough, for example, fell 88 percent over the year. Haines' and Skagway's stories were similar.

Anchorage, home to nearly 40 percent of the state's population, lost about 4,000 jobs, which was a third of its eating and drinking employment. That was the state's biggest numerical loss.

Other hard-hit areas included the Kenai Peninsula, Fairbanks, and Ketchikan, places where eating and drinking employment dropped by half due to jobs that were cut or never materialized over the summer.

Industry employment recovering slowly, but it could take years

After April's dramatic decline, eating and drinking began to incrementally recover some of the losses, but there's still a ways to go. The industry in the second quarter of this year was the smallest it had been since the first quarter of 2000, and first quarters are always the slowest.

May's employment was down a third from May 2019, and June's was down over 25 percent from

How areas' eating and drinking industries fared

Area	Total eat/ drnk jobs in 2019	Employers in 2019	Percent of all jobs in 2019	Eat/drnk jobs, Q2 of 2019	Eat/drnk jobs, Q2 of 2020	Percent change
Statewide	21,991	1,500	6.7%	22,666	14,940	-34%
Aleutians East Borough	22	4	0.9%	-	-	-
Aleutians West Census Area	-	6	-	-	-	-
Anchorage, Municipality	11,714	610	7.8%	11,804	7,810	-34%
Bethel Census Area	23	7	0.3%	17	23	35%
Bristol Bay Borough	-	5	-	-	22	-
Denali Borough	338	12	16.1%	489	57	-88%
Dillingham Census Area	-	6	-	-	-	-
Fairbanks North Star Borough	2,888	188	7.6%	2,960	2,196	-26%
Haines Borough	69	12	6.7%	82	23	-72%
Hoonah-Angoon Census Area	-	-	-	-	-	-
Juneau, City and Borough	999	86	5.6%	1,074	562	-48%
Kenai Peninsula Borough	1,557	187	7.8%	1,723	1,103	-36%
Ketchikan Gateway Borough	455	42	6.1%	456	216	-53%
Kodiak Island Borough	288	26	4.9%	303	203	-33%
Kusilvak Census Area	-	-	-	-	-	-
Lake and Peninsula Borough	-	-	-	-	-	-
Matanuska-Susitna Borough	2,006	153	8.1%	1,988	1,535	-23%
Nome Census Borough	87	14	2.2%	83	45	-46%
North Slope Borough	477	11	3.7%	492	418	-15%
Northwest Arctic Borough	70	3	2.4%	69	64	-7%
Petersburg Borough	61	11	4.8%	64	48	-25%
Prince of Wales-Hyder Census Area	62	10	2.7%	59	-	-
Sitka, City and Borough	343	26	8.0%	355	216	-39%
Skagway, Municipality	-	-	-	-	-	-
Southeast Fairbanks Census Area	130	11	5.2%	146	100	-32%
Valdez-Cordova Census Area	160	42	3.2%	189	-	-
Wrangell, City and Borough	19	4	2.3%	18	16	-11%
Yakutat, City and Borough	-	1	-	-	-	-
Yukon-Koyukuk Census Area	-	7	-	-	-	-

Notes: Second quarter data are the most recent available for 2020 at this geographic level. A dash means the numbers are too small to maintain the confidentiality of specific employers.

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

the year before.

No other industry lost such a large share of its jobs due to the pandemic, and with fall and winter setting in, the short-term outlook remains grim. Without the extra boost in profits bars and restaurants get during the summer, some of those that remain open all year will struggle to stay open this winter.

We don't yet have area job numbers for the third quarter, but consumer spending suggests the industry remained sluggish. Opportunity Insights releases weekly data on how consumer spending has changed since January, and it adjusts for any typical seasonal ups and downs to give a clearer picture. Seasonally adjusted consumer spending on hotels and restaurants in November was down 38 percent, and it hasn't improved consistently since

Continued on page 15

A look at the eating and drinking industry in Alaska and how we compare nationally

Alaskans spend a lot of money on food away from home. According to the Bureau of Labor Statistics, “urban” Alaskans spent an average of 43 percent of their food budget on eating out in 2018. On a per capita basis, that’s \$4,097, which is a third more than the \$3,067 spent nationally. Higher food costs explain much of that gap, and differing incomes and demographics are probably factors as well. In total, Alaskans spent \$3 billion on food and drinks away from home in 2018.

It’s a large industry, but it plays a bigger role in most states

Last year, 6.7 percent of Alaska’s jobs — around 22,000 — were tied to the eating and drinking industry. That’s more employment than the oil industry, construction, or the federal government.

The wage impact is smaller, though. Eating and drinking jobs tend to be lower-wage and high-turnover, and many are part-time. This puts the industry’s average wages near the bottom. It’s a similarly small slice of the economy in terms of gross domestic product (just 2 percent), which is the value of all goods and services produced in Alaska. These expenditures generate other business activities in the state, however.

According to the National Restaurant Association, nearly half of adults say their first job was in a restaurant, and restaurants employ one in three working teens.

Although the industry is large and growing, Alaska still has proportionately fewer bars and restaurants than most of the country. Nationally, they represent 8 percent of all jobs.

Among states, Alaska ranks 46th for its share, above only Iowa, Vermont, New Jersey, and North Dakota. Hawaii, the most visitor-dependent state, ranks first. Alaska’s share is low despite having a robust visi-

tor industry. One possibility is that cruise ship visitors, who represent the bulk of Alaska’s summer tourists, do most of their eating and drinking on board. Still, our ranking implies we have room to grow.

Alaska’s eating and drinking employment has also grown much slower than the nation’s, increasing 14 percent between 2010 and 2019 as it grew 29 percent nationwide. Alaska’s economy was sluggish over that period, especially in comparison. As the nation’s streak of economic expansion hit a record, the state weathered a three-year recession in the latter half of the decade.

Coffee shops and huts have grown the most in Alaska

We’ve caught up to the nation somewhat in recent years. Alaska’s eating and drinking industry modestly increased its share of total jobs by about a percentage point between 2000 and 2019, and its longer-term growth was stronger. In the February 2019 issue of *Alaska Economic Trends*, we ranked restaurants and bars third on our list of the 25 biggest “winners” for job growth between 1990 and 2017.

Continued on page 15

Industry’s share of jobs, by state

	State	Percent
	U.S.	8.0%
1	Hawaii	10.7%
2	South Carolina	9.4%
3	Montana	9.3%
4	Nevada	9.3%
5	Florida	9.2%
6	Rhode Island	8.9%
7	Louisiana	8.8%
8	New Mexico*	8.8%
9	Texas	8.7%
10	North Carolina	8.6%
11	Georgia	8.6%
12	Tennessee	8.5%
13	Colorado	8.5%
14	California	8.4%
15	Mississippi	8.4%
16	Oklahoma	8.4%
17	Kentucky	8.4%
18	Oregon	8.2%
19	Alabama	8.2%
20	Delaware	8.1%
21	Arizona	8.1%
22	Ohio	8.0%
23	Missouri	8.0%
24	West Virginia*	7.9%
25	Idaho	7.8%
26	Indiana	7.8%
27	Illinois	7.7%
28	Arkansas	7.6%
29	Michigan	7.6%
30	Virginia	7.5%
31	Maryland	7.5%
32	Massachusetts	7.4%
33	Maine	7.4%
34	New Hampshire	7.4%
35	Washington	7.4%
36	South Dakota*	7.4%
37	Kansas	7.2%
38	Wyoming	7.2%
39	Wisconsin	7.0%
40	Connecticut	6.9%
41	New York	6.9%
42	Pennsylvania	6.9%
43	Nebraska	6.8%
44	Utah	6.8%
45	Minnesota	6.7%
46	Alaska	6.7%
47	Iowa*	6.6%
48	Vermont	6.5%
49	New Jersey	6.5%
50	North Dakota	6.5%

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

To Relocate Villages, Or Not?

At-risk Alaska communities face hard, expensive choices

BY SARA TEEL

A growing number of Alaska communities face the compounding threats of erosion, flooding, and permafrost thaw. In Yup'ik, these combined processes can cause catastrophic ground collapse called *usteq*, or “surface caves in.”

When severe enough, *usteq* can cripple village life, health, and economies. Without action, some villages would eventually sink into the softening ground or slide into the ocean or river. (For details on these hazards, see the sidebar on page 10.)

While erosion, flooding, and permafrost thaw can be natural processes, climate change has dramatically accelerated *usteq*. The Arctic is heating at more than double the rate of the rest of the planet. According to the National Oceanic and Atmospheric Administration's Arctic Report Card, the past six years' average temperatures exceeded all previous records.

The costs of climate change grow each year with higher temperatures, rising sea levels, changing weather patterns, and the loss of protective sea ice. According to the University of Alaska Anchorage's Institute of Social and Economic Research, climate change will cost Alaska about \$340 million to \$700 million per year for the next 30 to 50 years.

Corps listed imperiled villages in 2009, added more in 2019

In 2009, the U.S. Army Corps of Engineers identified 178 Alaska communities “in most imminent danger of becoming uninhabitable” from erosion alone, deeming 26 of them “priority action communities.” The Corps predicted that those 26 — mostly major-ity Alaska Native villages that rely on subsistence

Usteq: Yup'ik for “surface caves in”

A catastrophic form of permafrost thaw collapse that occurs when frozen ground disintegrates under the compounding influences of thawing permafrost, flooding, and erosion



These houses in Shishmaref collapsed because of coastal erosion. Permafrost thaw worsens the problem by destabilizing the shoreline. Photo by GRID-Arendal, www.grida.no/resources/1139

— faced severe damage within 10 years. Nearly three-quarters are coastal or near-coastal, and most are on Alaska's western coast.

One reason Western Alaska is so vulnerable is its storms are severe. The North Pacific has one of the most active storm tracks in the northern hemisphere. On the state's western coast, these storms can reach Category 1 hurricane strength — 74 mph to 95 mph winds — but with diameters five to 10 times larger than a typical Category 1 hurricane.

In 2019, the Corps and other groups reevaluated those communities to provide guidance for planners

The 40 in-peril communities the Corps listed as highest-priority in 2019

	Coastal or near-coastal	Not coastal
Elsewhere in Alaska	Utqiagvik	Allakaket, Circle, Eagle, Fort Yukon, Galena, Gulkana, Hughes, Huslia, Lime Village, McGrath,
Western Alaska	Alakanuk, Buckland, Chefornak, Deering, Elim, Emmonak, Golovin, Kivalina, Kotlik, Kotzebue, Newtok, Nome, Port Heiden, Saint Michael, Savoonga, Shaktoolik, Shishmaref, Teller, Tuntutuliak, Unalakleet	Akiak, Bethel, Koyukuk, Kwethluk, Napakiak, Napaskiak, Noatak, Tuluksak

Note: The 10 villages in red are the most at risk from the combined threats of erosion, flooding, and permafrost thaw.

Sources: University of Alaska Fairbanks Institute of Northern Engineering, U.S. Army Corps of Engineers Alaska District and Cold Regions Research and Engineering Laboratory, and the Denali Commission

in an updated report for the Denali Commission. The update expanded the main threats to include flooding and permafrost thaw.

Although many of the communities had made significant progress over the decade, the Corps kept nearly all of them on the list and added several more. (See the table above for the 40 communities considered most at risk as of 2019.)

The types of damage these towns face vary by their topographical, geological, and societal characteristics, and so do the best paths forward. But the lack of statewide monitoring is an obstacle for engineers, scientists, and planners, who get most of their information from historical records, disaster declarations, and anecdotal or physical evidence.

Villages face two choices, and both are costly and complicated

Threatened communities have two choices: stay and try to mitigate the damage, or relocate. Both are complicated and expensive, especially for villages that have little to no tax base.

Relocation isn't a new phenomenon for Alaska

Native communities, but modern infrastructure costs far more to move or rebuild and requires outside expertise in planning, geotechnical engineering, and construction.

Cost is the biggest hurdle, though, as relocating can run as much as \$200 million. The quantifiable costs come from extensive planning and relocating fuel tanks, water and sewer pipes, power plants, and building materials. Relocating brings social costs as well, such as a loss of tribal identity or difficulty subsisting in a new area.

Staying in place means addressing each threat as it arises, and mitigation projects in remote places can range from several hundred thousand to tens of millions of dollars each. Examples include building or reinforcing berms, replacing old infrastructure, finding new sources of potable water, moving or replacing buildings, or setting up for emergency evacuations.

Over time, the sum can exceed the cost of relocation — but for many communities, staying is the only option. That's because it can take decades to secure funding and the necessary permits to move, and the community must continue to pay for schools, utilities, and health clinics in the meantime as well as offset the ongoing damage.

The three main types of threats

Erosion by water

Erosion is the removal of soil, thawed or frozen, by water movement. It can be coastal or on a river, called “riparian,” and can be a slow and steady process or a single damaging event, such as a storm. Many Alaska communities experience both. When erosion threatens a community, it leads to structural failure of buildings, utilities, and transportation facilities.

Coastal erosion can be caused by ocean currents, waves, or storm surge, but wave damage is most common. Sea ice protects the coast from storms and minimizes the rate of coastal erosion, but sea ice is disappearing. According to NOAA’s annual Arctic Report Card, summer and winter levels of arctic sea ice continue to fall. Last year marked the second-lowest ice level on record for the end of summer and the seventh-lowest for winter, as measured since 1979. Local sea level changes can exacerbate coastal erosion.

Currents are the main cause of riparian erosion. Many Alaska rivers and streams are serpentine, and the current’s velocity increases as it passes the outside bend or cut bank, increasing erosion and creating deeper water. This is a natural process, but changing weather patterns and human activity such as boat wakes can accelerate it. Many river communities are situated at or near the cut bank to take advantage of the deeper water for barging in supplies and moving people.

Measures to combat erosion include beach nourishment, bank stabilization, and revetments. Beach nourishment replaces lost sand or sediment. Bank stabilization uses retaining walls or vegetation to secure the banks. A revetment is a slanted structure placed

on a bank or cliff that absorbs wave or current energy. Examples include riprap, quarry stone, geotextile sandbag, or wrap. Each can involve significant planning, design, and permitting and run into the millions of dollars.

Flooding

Water levels rising along a coast or river onto usually-dry land can compromise infrastructure or make roads or airstrips impassible. Storm surge is the most common cause of flooding in coastal Alaska, and it’s most severe in Norton Sound.

Rising sea levels are increasing the severity. Historically, sea ice has protected communities from flooding by reducing the time spent exposed to a storm surge, but sea ice is dwindling.

Rivers flood due to ice jams, rainstorms, snowpack melt, or dam breakage. Climate change is shifting the conventional rainfall, snowmelt, and ice breakup patterns.

Flood mitigation includes revetments, flood control projects, and warning systems.

Permafrost thaw

Permafrost is any soil or rock that remains at or below 0°C (32° F) for two or more back-to-back years. There are five types: cold, ice-rich, thaw-stable, thaw-unstable, and warm. A structure’s design depends on which type of permafrost lies beneath it.

Heat transfer from buildings or other infrastructure, or overall warming, can thaw permafrost. This can damage buildings and infrastructure, cause cellars to flood or warm too much to keep food frozen, or cause landslides and subsidence (a gradual settling or sinking).

Permafrost analysis is typically performed for specific buildings or roads but not regionally, which makes planning difficult.

Just the mention of relocation can make it harder to secure grants, as the state and federal governments can be hesitant to invest in infrastructure for temporary use.

COVID-19 will likely worsen the long-term funding problem, as it’s sapped already-strained government revenues. With additional budget cuts, grants may become even more scarce and competitive.

When relocating is an option, it has more benefits than just a fixed cost. It can eliminate the threat, improve residents’ health and quality of life, alleviate overcrowding, and create jobs during and after the relocation.

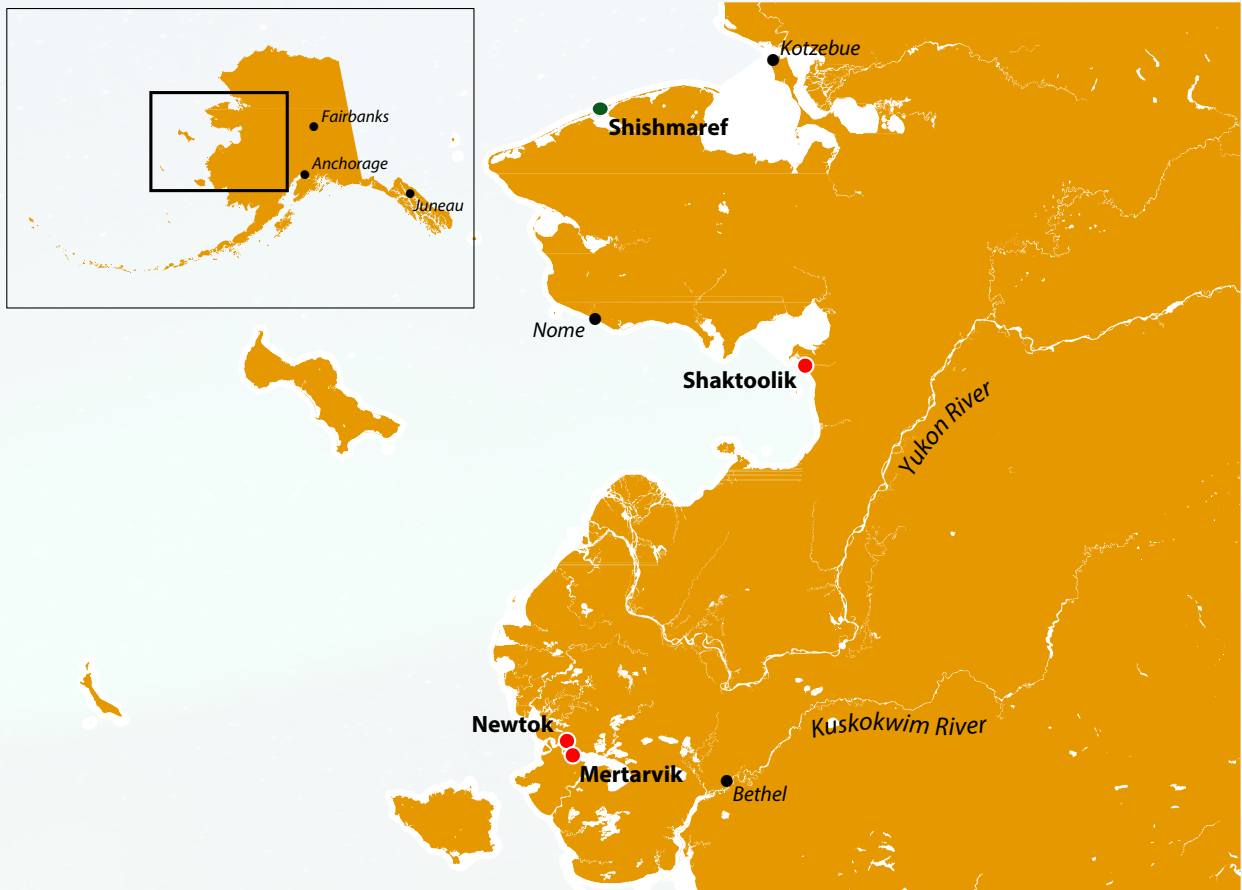
The rest of this article explores two Western Alaska communities that have chosen to deal with *usteq* in opposite ways. Both depend on subsistence and lack a significant tax base.

Shaktoolik, the most at risk, has decided to stay put and manage the problems as they arise. Newtok has spent decades planning to relocate to a new village, called Mertarvik, and is in the middle of that move.

STAY AND DEFEND: Shaktoolik

Shaktoolik, a Malemiut Yup’ik village in the Nome Census Area, sits atop a three-mile sand and gravel spit on the northeastern coast of Norton Sound. The name comes from the Unaliq *suktuliq*, which means “scattered things.” The name may have originated with the ancestors who moved around the region continuously for around 6,000 years.

Newtok is moving to Mertarvik, but Shaktoolik will stay in place



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

Shaktoolik first appeared in the 1880 census with a population of 60. Now, 140 years later, the village has 272 residents. Ninety-four percent are Alaska Native. With a median income of about \$18,570, 39 percent of residents live below the federal poverty line.

The original location, inhabited as far back as 1839, was six miles up the Shaktoolik River. In 1933, the U.S. Bureau of Indian Affairs built a school at the mouth of the river, now called the “old site.” To use the school, residents moved. That proved temporary, as the area was susceptible to high winds and severe storms. Thirty-four years later, they relocated again, to the current spot.

Shaktoolik is primarily a subsistence village. Unlike many communities, its residents don’t need subsistence salmon permits. The community has regular air service via a state-owned gravel airstrip, the Alex Sookiyak Memorial Airstrip, and ships in cargo from Nome.

Shaktoolik levies a sales tax of 4 percent, and in 2019, it collected \$87,037, or about \$316 per person. The village has two windmills to offset diesel costs and has six satellite dishes, whereas most villages have just one. The dishes provide better internet and access to education and telehealth opportunities.

The Shaktoolik School had 90 students during the 2018-2019 school year. The village has one health clinic, run by the Norton Sound Health Corporation, as well as two stores, a laundromat, and a bed-and-breakfast.

Shaktoolik hosts one of the checkpoints for the famed Iditarod sled dog race. In 2020, the community received the Golden Clipboard Award from the Iditarod Official Finishers Club for providing “the best possible checkpoint in light of restrictions and concerns over COVID-19.” Villagers had repurposed an abandoned building to provide room and board for dogs and mushers preparing to cross the frozen Norton Bay.



Shaktoolik is located on a spit and faces threats from both sides: Norton Sound to the west and the Tagoomenik River to the east. Photo by Walter Holt Rose

Usteq effects on Shaktoolik

Flooding and erosion, both river and coastal, are the main problems. To the west, Norton Sound carries driftwood from the Yukon River onto the shore. During severe storms, the driftwood erodes the western shoreline of the spit and batters the sides of homes. The village loses about 38,000 square feet of land each year to erosion.

To the east, the mouth of the Tagoomenik River floods. Storms encroaching on the village from both directions can necessitate evacuation.

When the Army Corps of Engineers first evaluated Shaktoolik in 2009, they predicted erosion damage within 10 years because the natural protections had already dwindled. It was a clear reality by 2019. There's no offshore ice during some winters, which increases the erosion rate and endangers fuel tanks, homes, businesses, and the airport. If erosion turns the spit into an island, the inflow of salt water will contaminate or destroy Shaktoolik's source of fresh water.

Residents have considered another move, but given the expense, they've decided to stay in place and deal with problems as they arise.

What has been and will be done

State engineers envisaged a berm on the western shoreline, but a loss of funding ended state involvement early on. By 2014, Shaktoolik had raised the money on their own and built a berm from gravel and driftwood to gird against storm surges and minimize erosion. A storm took out half the berm in 2019, and the Denali Commission funded the repairs.

In 2019, the National Coastal Resilience Fund awarded Shaktoolik a \$1 million grant, in partnership with NOAA, to maintain the berm and begin building a new bulk fuel tank farm, which was completed this fall. Private donors contributed about \$5 million.

This year, the U.S. Department of Housing and Urban Development granted Shaktoolik \$800,000 to elevate 5,900 horizontal feet of the berm by five feet using local fill, driftwood, and grass.

These projects are among the many listed in Shaktoolik's management plan. Others include an evacuation road, water system improvements such as insulated tanks, floodlights and lighted buoys for the river, a new health clinic (completed in 2019), and an evacuation center. These will likely cost more than \$100 million, and none will be permanent fixes.



This photo of Newtok was taken in 2010. Boardwalks, such as this one leading into town, are necessary for supporting weight as permafrost thaw makes the ground increasingly soft. Photo by Flickr user Travis

RELOCATE: Newtok/Mertarvik

The Central Yup'ik village of Newtok (*Niugtaq*, or “rustling of grass”) is located in the Yukon Delta National Wildlife Refuge, about 100 miles northwest of Bethel, with the Ninglick River to the south and the Newtok River to the east. It's part of the Nelson Island communities, collectively known as the *Qaluyaarmiut*, or “dip net people.” The *Qaluyaarmiut* have lived on the Bering Sea for at least 2,000 years.

The original village, called Old Kealavik, had regular outside contact beginning in the 1920s, which was later than many other villages. That delay helped preserve its traditions and customs.

In 1949, with floods increasing, the village moved to its current location and changed its name to Newtok. Residents spent summers at fish camps on Nelson Island and winters in Newtok until the 1970s, when they widely adopted typical American housing and snowmachines.

Newtok, also a damp village, had 339 residents in 2019, 99.5 percent of whom are Alaska Native. The median income is less than \$10,000, and 34 percent live in poverty. Like many Alaska Native villages, Newtok's homes are overcrowded, at an average of more than six people per house.

One hundred children attended the local Ayaprun School during the 2018-2019 school year. There is no running water or sewer, but the village has a health clinic operated by the Yukon-Kuskokwim Health Corporation as well as several stores.

The state-owned airstrip, the Newtok Airport, is gravel. In the winter, snowmachiners can follow trails to the nearby villages of Chevak, Tununak, Toksook Bay, Nightmute, and Manaryarapiaq. In the summer, barges deliver cargo.

Usteq effects on Newtok

Permafrost thaw and erosion are Newtok's main threats, but floods intensify the damage. The village is in a flat, low-lying, swampy area and the permafrost is ice-rich. When thawed, the ground can't support much weight, so residents use boardwalks. If you step off, you can end up thigh-deep in the mud.

The Ninglick River is severely eroded, exacerbated by currents and the loss of ice along the riverbank due to rising temperatures. In 1996, the river eroded so much that it turned the free-flowing Newtok River into a slough, hampering waste disposal and commercial boats' ability to reach the village. The village dump also washed into the Ninglick River that year.

The estimated long-term average erosion rate is now at least 70 feet a year, and individual storms can hasten the land loss. For example, in October 2018, a three-day storm cost Newtok an additional 20 feet of shoreline.

Newtok floods almost every year, and the water supply has become contaminated with a mixture of sewage and stagnant water from melting permafrost. Residents suffer from high rates of respiratory and other illnesses caused by black mold and unsafe waste disposal. Conditions have also delayed the construction of critical infrastructure, which has further endangered public health and quality of life.

The barge landing and container storage area succumbed to the river in 2005, and buildings and boardwalks are often partially submerged. Accessing the river for subsistence has become harder, and residents can only reach it during high tide.

What has been and will be done

When Old Kealavik moved to Newtok, residents

quickly realized the new location was prone to erosion.

In 1983, a contractor performed an erosion assessment using aerial photography from 1957, 1974, and 1977 and determined that Newtok would be endangered within 25 to 30 years and that preventing erosion of the Ninglick River would be neither affordable nor permanent.

They still tried. In 1987, residents lined the riverbank with canvas bags filled with cement and Styrofoam, but the river washed the bags away. So in 1994, the Newtok Traditional Council began a relocation plan, and the village voted two years later to move.

The Newtok Planning Group (30 village, regional, state, federal, and educational organizations) was formed in 2006. The following year, geotechnical overviews began and engineers drilled the first water well at the new site, Mertarvik.

Mertarvik, which means “getting water from the spring,” is nine miles from Newtok on Nelson Island. The village chose the location for its ground stability, higher elevation, water quality, and access to the natural environment.

The Army Corps of Engineers estimated it would cost \$80 million to \$130 million to relocate critical infrastructure. Funding has been intermittent, coming from a variety of public and private sources, and other agencies have provided labor. In 2009, the Department of Defense’s Innovative Readiness Training program began a five-year collaboration to work on construction projects and blast a quarry site. IRT gives American communities infrastructure support, health care, or training by military personnel.

In 2018, Mertarvik received \$25 million from the Denali Commission, which was what they needed to begin the move the following year. They chose a “pioneering” approach, meaning only about a third of the residents made the initial move. That group included those most at risk of losing their homes to the river in Newtok.

Not all core infrastructure is in place, so the pioneering approach will allow Mertarvik residents to teach the young a traditional lifestyle. The residents have new houses with in-home sanitation systems, but they don’t yet have running water. Mertarvik will be eligible for additional funding once it’s a permanent community, though.

The new village has a small grocery store, a non-commercial airstrip, a power plant and electrical distribution system, a water treatment plant, a bulk fuel tank farm, a landfill, roads, and a communication system.

Since the move, residents have reported better health due to cleaner indoor and outdoor air and more reliance on subsistence.

In 2019, HUD awarded Mertarvik \$800,000 to construct three single-family, four-bedroom houses. This year, Mertarvik plans to use pandemic relief funds from the CARES Act to build five new

homes that will initially serve as quarantine quarters for those with COVID-19.

The target date for the complete move to Mertarvik is 2023. For now, both villages must maintain health and safety standards, but Newtok is often ineligible for grants. In the meantime, Newtok’s water supply and electrical grid are at risk, and it’s not unknown for buildings to slide off their foundations.

Over the last 10 years, many villages have made significant progress, but Newtok has accomplished the most.

Many villages will receive additional funding this year

In June, HUD announced more than \$21 million in community infrastructure funds for tribes and Native villages in Alaska, including Mertarvik and Shaktoolik. The funds will support 28 development projects such as the construction of houses, wellness facilities, and electric distribution systems; and the installation of water and sewer lines.

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THE PANDEMIC AND RESTAURANTS, BARS

Continued from page 6

June. That's still better than spring, though. Spending at restaurants and hotels was as much as 68 percent lower during parts of April and May.

Opinions vary on how long it will take the industry to recover, especially because the pandemic isn't over. In a June survey of 460 Southeast Alaska businesses by Rain Coast Data, 33 percent of bar and restaurant owners estimated they had a moderate or significant risk of closing permanently because

of COVID-19.

Our 10-year industry projections, in the October issue of *Trends*, forecasted restaurants will eventually recover and add jobs twice as fast as the economy as a whole. It will likely take years to regain previous levels, however.

The popularity of takeout will probably continue to grow, automation will accelerate, and independent operators may struggle more, but the industry's recovery will mainly hinge on consumer demand for eating away from home and on the overall health of the economy.

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INDUSTRY SIDEBAR

Continued from page 7

One of the industry's smaller categories, snack and nonalcoholic beverage bars, has grown fastest. About three-quarters of these jobs are in coffee shops and huts, which are big in Alaska.

The largest part of the industry, full-service restaurants, also performed better than average, reflecting their growing popularity. For absolute job growth, they ranked first on our list of the 25 winners.

Bar employment tanked during the past decade, however, a trend that started long before. Bars ranked in the bottom 25 on our long-term list. Consumer preferences have changed, and bars continue to struggle as more restaurants add full bar facilities, and breweries and brewpubs eat further into the market share.

Eating and drinking jobs concentrated in roaded areas

More than half of the bar and restaurant jobs in Alaska are in Anchorage, and over 83 percent are in Anchorage, Fairbanks, the Kenai Peninsula, and the Matanuska-Susitna Borough. Those four areas are home to 76 percent of the state's population, and they all have a larger percentage of their jobs in eating and drinking than the statewide average.

While most rural, off-road places have smaller concentrations of food and beverage service jobs, the North Slope Borough is a major exception because of the oil fields and their large, remote workforce.

Restaurants and bars often rely heavily on tourism

Some smaller, tourism-dependent areas also have higher-than-average shares of jobs in eating and drinking, and the Denali Borough is the highest in the state at 16 percent.

Denali National Park receives thousands of visitors every summer, and its industry employment jumps from around 20 jobs during the off-season to more than 800 in July. Sitka and Skagway are similar but less extreme examples.

Tourism is a big part of this industry statewide. According to McDowell Group, tourism generates more jobs in eating and drinking than it does in any other part of the economy. The same study found visitors' food and drink spending ranks second only to what they spend on lodging.

Tourism's influence is also evident in the eating and drinking industry's seasonality. In 2019, its employment ranged from a low of 20,023 jobs across the state in January to a peak of 24,666 in August.

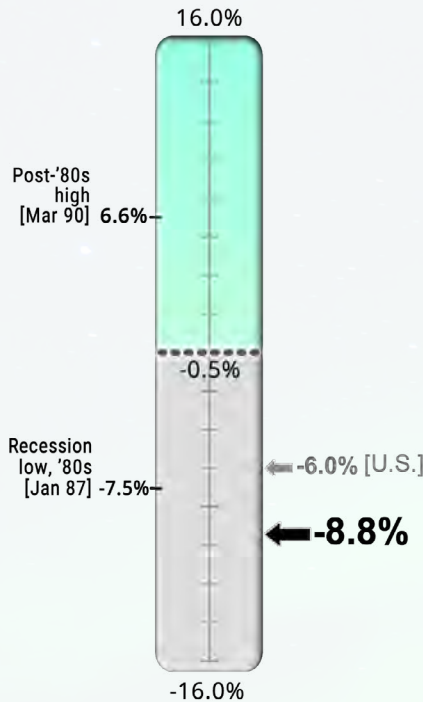
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Gauging The Economy



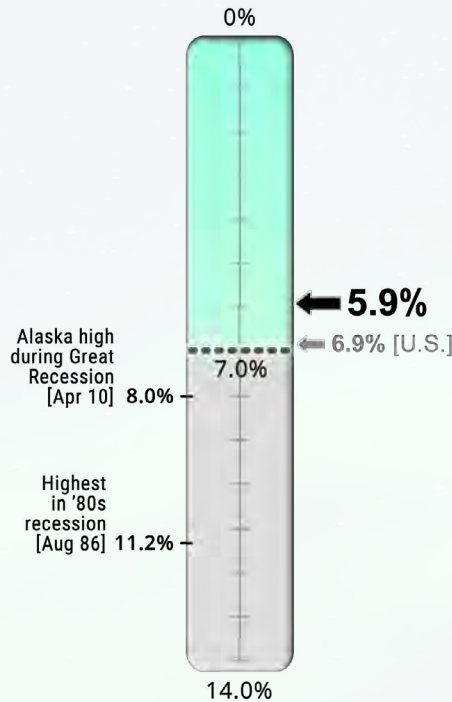
Job Growth

October 2020
Over-the-year percent change



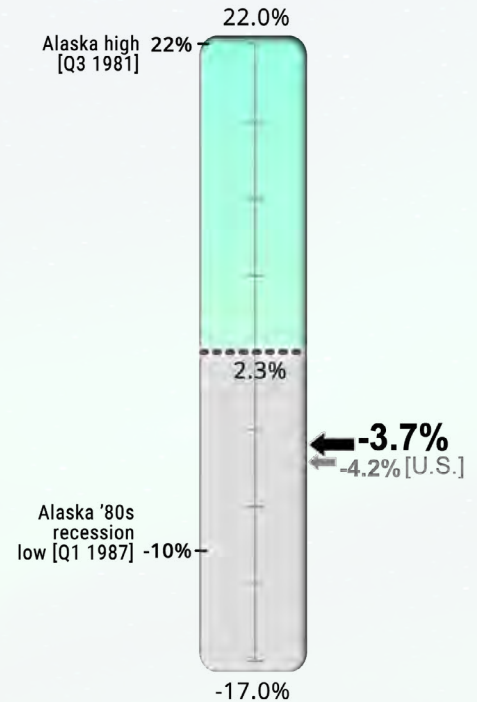
Unemployment Rate

September 2020
Seasonally adjusted



Wage Growth

2nd Quarter 2020
Over-the-year percent change

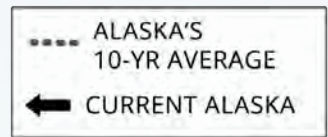


- The shutdowns to slow the spread of COVID-19 caused a rapid drop in employment, beginning in April.
- Over-the-year job losses have dropped below 10 percent as the economy transitions into winter.

- Alaska's unemployment rate fell again in October, but the lower rates in recent months are due to technical issues with the way the U.S. Bureau of Labor Statistics calculates them and are less useful than normal for assessing economic health.

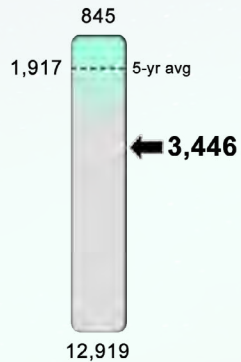
- After 10 straight quarters of wage growth, Alaska's total wages fell dramatically with the pandemic.
- Wage losses have not been as severe as job losses because a disproportionate number of jobs lost were low-wage.

Gauging The Economy



Initial Claims

Unemployment, week ending Nov. 7, 2020**

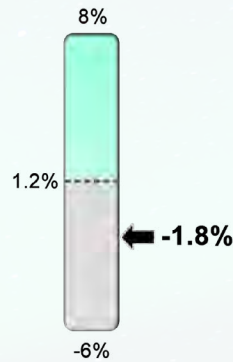


➤ Unemployment claims jumped in the spring with the coronavirus pandemic as many businesses shut down or limited services, and they remain elevated.

**Four-week moving average ending with specified week

GDP Growth

1st Quarter 2020
Over-the-year percent change*

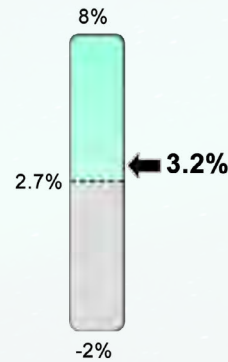


➤ Gross domestic product is the value of the goods and services a state produces. This GDP decline was the first over-the-year loss since the third quarter of 2016.

*In current dollars

Personal Income Growth

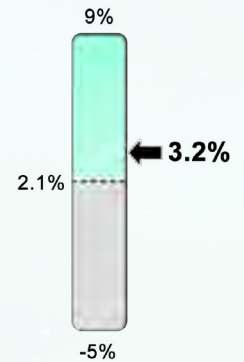
1st Quarter 2020
Over-the-year percent change



➤ Personal income includes wages as well as transfer payments (such as Social Security, Medicaid, and the PFD) and investment income. After five quarters well above the 10-year average, growth slowed in the first quarter of 2020.

Change in Home Prices

Single-family, percent change from prior year, Q2 2020**

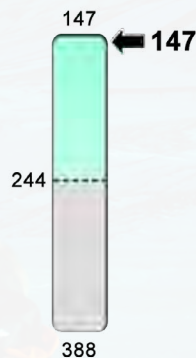


➤ Home prices include only those for which a commercial loan was used. This indicator tends to be volatile from quarter to quarter.

**Four-quarter moving average ending with specified quarter

Foreclosures

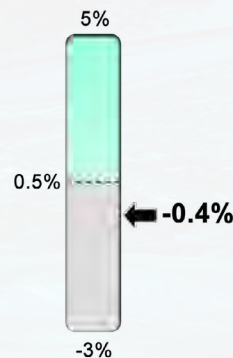
1st Quarter 2020



➤ Foreclosure rates remain very low and were low throughout the recent state recession, highlighting how different it was from the '80s recession when foreclosures exceeded 2,000 in some quarters.

Population Growth

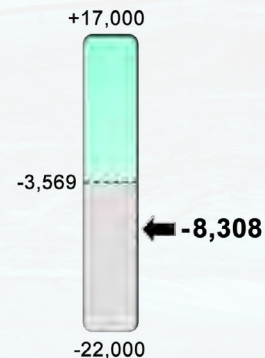
2018 to 2019



➤ This was the third straight year of population decline.

Net Migration

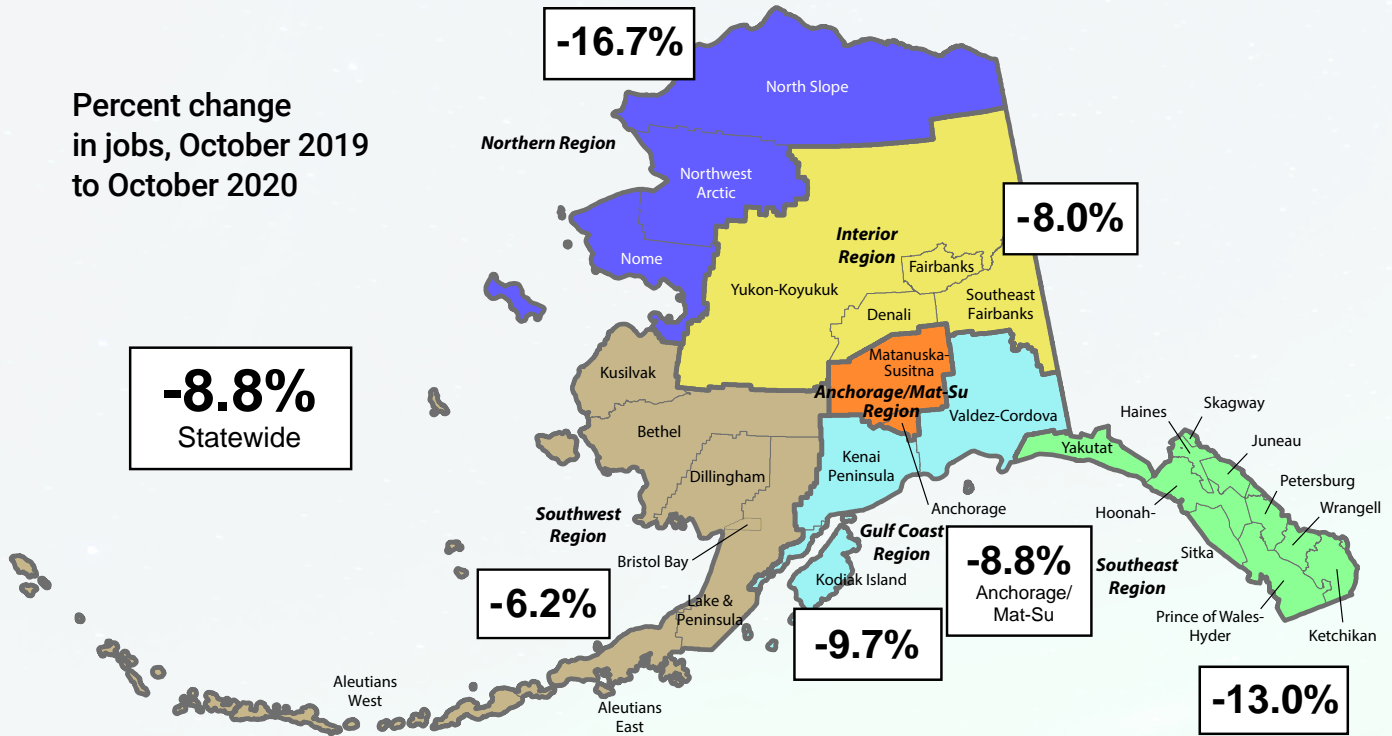
2018 to 2019



➤ The state had net migration losses for the seventh consecutive year in 2019. Net migration is the number who moved to Alaska minus the number who left.

Employment by Region

Percent change
in jobs, October 2019
to October 2020



Seasonally adjusted

	Prelim.	Revised	
	10/20	09/20	10/19
United States	7.9	8.4	3.5
Alaska	7.2	7.4	6.2

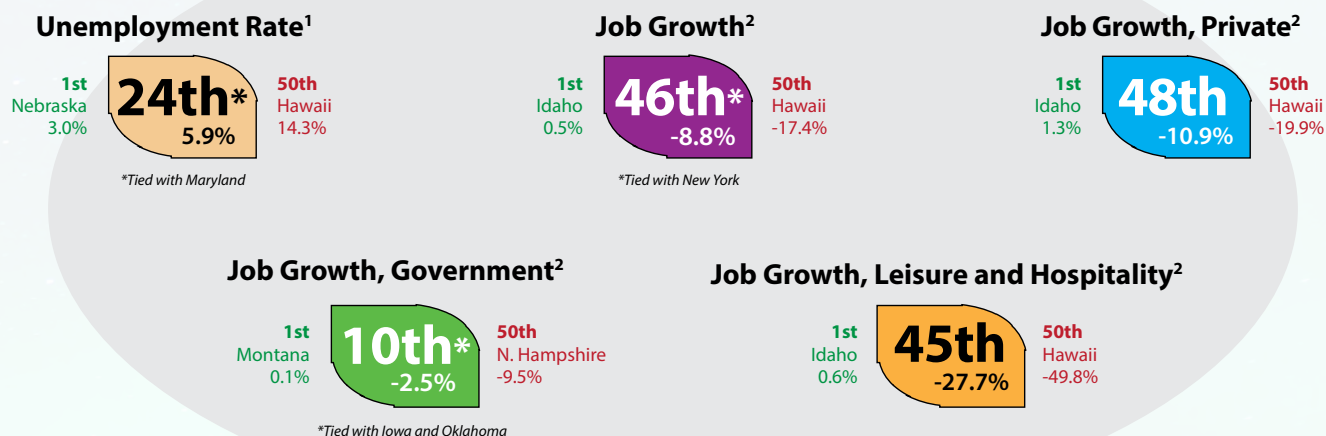
Not seasonally adjusted

	Prelim.	Revised	
	10/20	09/20	10/19
United States	7.7	8.5	3.3
Alaska	6.5	6.4	5.5

Regional, not seasonally adjusted

	Prelim.	Revised			Prelim.	Revised			Prelim.	Revised	
	10/20	09/20	10/19		10/20	09/20	10/19		10/20	09/20	10/19
Interior Region	4.5	5.3	5.5	Southwest Region	6.4	7.3	9.1	Southeast Region	5.5	6.6	5.5
Denali Borough	8.6	6.4	9.4	Aleutians East Borough	1.8	2.1	2.7	Haines Borough	8.9	10.4	8.4
Fairbanks N Star Borough	4.3	5.0	5.0	Aleutians West Census Area	2.6	2.4	4.4	Hoonah-Angoon Census Area	9.4	9.5	10.1
Southeast Fairbanks Census Area	5.0	5.4	7.9	Bethel Census Area	8.4	10.3	11.4	Juneau, City and Borough	4.6	5.7	4.2
Yukon-Koyukuk Census Area	6.5	8.7	11.5	Bristol Bay Borough	6.7	6.4	8.0	Ketchikan Gateway Borough	6.4	7.6	6.1
Northern Region	6.8	8.2	9.3	Dillingham Census Area	5.6	6.8	7.2	Petersburg Borough	5.6	5.4	8.8
Nome Census Area	6.6	8.8	8.8	Kusilvak Census Area	11.1	13.0	15.8	Prince of Wales-Hyder Census Area	5.9	7.7	8.4
North Slope Borough	5.5	5.4	7.0	Lake and Peninsula Borough	6.1	6.2	7.8	Sitka, City and Borough	4.6	5.1	4.3
Northwest Arctic Borough	8.1	10.2	12.6	Gulf Coast Region	6.2	6.7	6.4	Skagway, Municipality	10.9	12.6	7.6
Anchorage/Mat-Su Region	5.3	6.5	5.1	Kenai Peninsula Borough	6.8	7.5	6.5	Wrangell, City and Borough	5.0	6.6	7.1
Anchorage, Municipality	5.3	6.4	4.8	Kodiak Island Borough	3.6	4.5	4.7	Yakutat, City and Borough	6.8	6.6	7.8
Mat-Su Borough	5.5	6.8	6.2	Valdez-Cordova Census Area	6.3	5.2	8.4				

How Alaska Ranks



Note: Government employment includes federal, state, and local government plus public schools and universities.

¹October seasonally adjusted unemployment rates

²October 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)	225.049	1st half 2020	228.858	-1.66%
Commodity prices				
Crude oil, Alaska North Slope, * per barrel	\$40.42	Oct 2020	\$62.83	-35.67%
Natural gas, residential, per thousand cubic feet	\$13.78	Aug 2020	\$14.78	-6.77%
Gold, per oz. COMEX	\$1,821.40	11/24/2020	\$1,463.80	+24.43%
Silver, per oz. COMEX	\$23.39	11/24/2020	\$17.03	+37.35%
Copper, per lb. COMEX	\$329.75	11/24/2020	\$266.20	+23.87%
Zinc, per MT	\$2,729.50	11/24/2020	\$2,281.00	+19.66%
Lead, per lb.	\$0.90	11/24/2020	\$0.88	+2.86%
Bankruptcies				
	76	Q3 2020	105	-26.62%
Business	3	Q3 2020	12	-75.00%
Personal	73	Q3 2020	93	-21.51%
Unemployment insurance claims				
Initial filings	21,647	Oct 2020	6,078	+256.15%
Continued filings	78,945	Oct 2020	25,336	+211.59%
Claimant count	23,373	Oct 2020	6,728	+247.40%

*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; Bloomberg; Infomine; Alaska Department of Revenue; and U.S. Courts, 9th Circuit