

Alaska GDP: Everything we produce

Oil is the largest contributor by far, directly and indirectly

By SAM TAPPEN

Gross domestic product, the value of all goods and services, is used as a broad measure of the national economy's health because it tracks how much the U.S. produces over time.

Although less well-known, GDP data are also available at the state level going back to 1997. State GDP shows not just the composition of Alaska's economy and how it's changed over time, but also how our state differs from others.

How inflation changes the picture

In 2024, the value of all goods and services produced within Alaska's borders totaled just shy of \$70 billion, up 2.8 percent from 2023.

That represented an ongoing leveling out from the rapid GDP growth of the two years after the pandemic dip in 2020. From 2020 to 2024, Alaska's GDP grew an average of 8.2 percent each year.

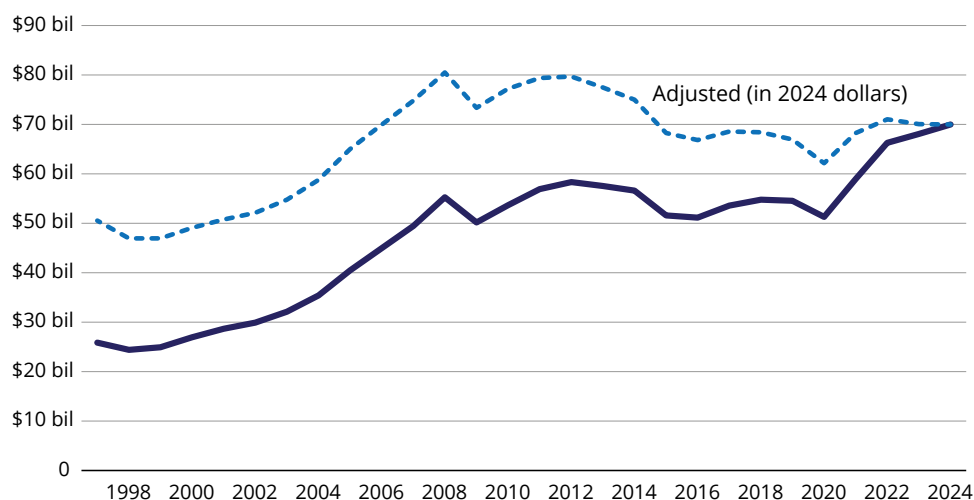
While that rate is nearly double Alaska's historical yearly average of 4 percent, the numbers can be misleading without accounting for inflation, especially during that period.

This decade has been one of the most inflationary periods in recent history, and inflation can give the false impression that GDP is constantly growing when it's reported in nominal (or unadjusted) dollars. The dashed line in the graph below shows Alaska's real GDP (adjusted for inflation), which makes the value of Alaska's output comparable over time.

Removing inflation's influence diminishes the annual growth. It even flips nominal gains to real losses in some years, including the past two. Alaska's long-term average real growth rate for GDP is 1.4 percent, but the line has mostly trended downward since 2008.

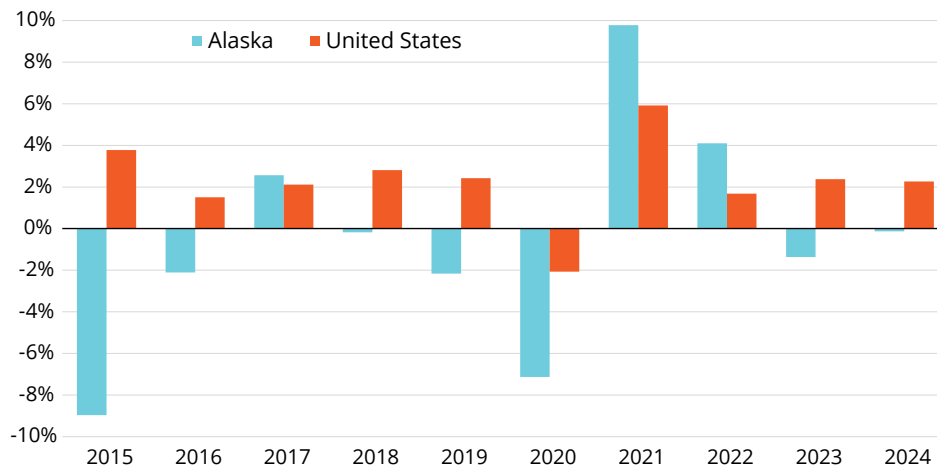
Real GDP has grown significantly since 2020, however — averaging 3.1 percent over the last four years — but the post-pandemic surge ended in 2023 and 2024 when Alaska's real output shrank by -1.4 and -0.1 percent, respectively.

Alaska's GDP since 1997, nominal and inflation-adjusted



Source: U.S. Bureau of Economic Analysis, SAGDP1 state annual GDP summary

Change in real GDP for Alaska and U.S., 2015 to 2024



Source: U.S. Bureau of Economic Analysis, SAGDP1 state annual GDP summary

Growth has lagged the U.S. and all states but one

Alaska's GDP growth has only outpaced the nation three times in the past 13 years — most recently in 2021 and 2022. Pandemic lockdowns eased over those years, and pent-up demand, federal stimulus funding, and rock-bottom interest rates pushed both economies into overdrive.

Alaska's struggles stem from back-to-back recessions over the past decade. GDP is one of the main indicators economists use to identify recessions (along with jobs, personal income, prices, sales, and industrial production), making it easy to identify the onsets of Alaska's recent recessions in the chart above. Real GDP dropped 9 percent in 2015 with the plunge in oil prices and 7.1 percent in 2020 amid pandemic disruptions.

Comparing Alaska's recent GDP trajectory to other states is even more telling. The table on the right ranks each state's average annual real GDP growth rate from 2015 to 2024. Alaska ranks second to last on the list at 0.4 percent, far below the national average of 2.1 percent and the states' median of 1.7 percent.

Every state suffered a downturn when the pandemic hit in 2020, but looking at the states ranked near the bottom for GDP growth hints at why Alaska lagged nearly all of them over the last decade. The oil and gas industry plays an outsized role in the economic output of North Dakota (50th), Alaska (49th), Wyoming (48th), Louisiana (46th), and Oklahoma (42nd).

How oil and gas has driven Alaska GDP over time

Crude oil production has dominated Alaska's economy since long before the first state-level GDP numbers (1997). Although production in Alaska has dropped by over three-quarters since peaking in the 1980s, the oil and gas industry still contributes more to our state GDP than any other.

The exhibit on the next page shows the relative share of GDP value that the mining sector has contributed annually. From 1997 to 2024, mining ranged from about 15 percent to 30 percent of the value of everything produced in Alaska.

GDP growth* by state, 2015-24

Average annual growth rate

United States	2.1%
1 Utah	4.8%
2 Idaho	4.4%
3 Florida	3.9%
4 Arizona	3.8%
5 Washington	3.7%
6 Nevada	3.5%
7 Colorado	3.0%
8 Texas	3.0%
9 South Carolina	2.7%
10 Tennessee	2.7%
11 Georgia	2.7%
12 Maine	2.7%
13 California	2.5%
14 Oregon	2.5%
15 North Carolina	2.5%
16 Montana	2.4%
17 Arkansas	2.1%
18 Indiana	2.0%
19 Alabama	2.0%
20 Nebraska	2.0%
21 Virginia	2.0%
22 Massachusetts	1.9%
23 New Hampshire	1.9%
24 New Mexico	1.8%
25 South Dakota	1.8%
26 New York	1.7%
27 Ohio	1.5%
28 West Virginia	1.5%
29 Kansas	1.5%
30 Missouri	1.5%
31 Kentucky	1.5%
32 New Jersey	1.4%
33 Minnesota	1.3%
34 Maryland	1.2%
35 Mississippi	1.2%
36 Michigan	1.2%
37 Vermont	1.2%
38 Wisconsin	1.1%
39 Rhode Island	1.1%
40 Delaware	0.9%
41 Pennsylvania	0.9%
42 Oklahoma	0.9%
43 Hawaii	0.9%
44 Illinois	0.8%
45 Iowa	0.8%
46 Louisiana	0.7%
47 Connecticut	0.7%
48 Wyoming	0.6%
49 Alaska	0.4%
50 North Dakota	0.2%

*Average annual, adjusted for inflation

Source: U.S. Bureau of Economic Analysis, SAGDP2 GDP by state

While mining includes the value produced by gold, silver, zinc, copper, gravel, and other minerals across the state, oil and gas has historically represented 84 percent of Alaska's mining GDP, on average.

The exhibit on the right also shows how mining's contribution largely follows the price of North Slope crude oil. After averaging above the inflation-adjusted \$100/barrel threshold for a decade before 2015, the price since has averaged around \$75.

Because mining is such a large and variable component of GDP, it tends to drive the state total. As such, the abrupt return to inflation-adjusted prices closer to the historical average has driven the GDP slowdown in Alaska over the last 10 to 15 years.

Why oil is critical to multiple parts of Alaska's economy

While the value of oil production represents a large share of Alaska's gross domestic product directly, it also influences GDP contributions of other industries it supports.

Oil revenues funded the bulk of state government for decades, but dwindling production and slumping prices reduced its dominance in recent years, especially since state government began funding the majority of its services with investment earnings from the Permanent Fund in 2019. Oil revenues represented 84 percent of unrestricted general funds on average in fiscal years 1980 through 2014 and just 51 percent in 2015-2024.

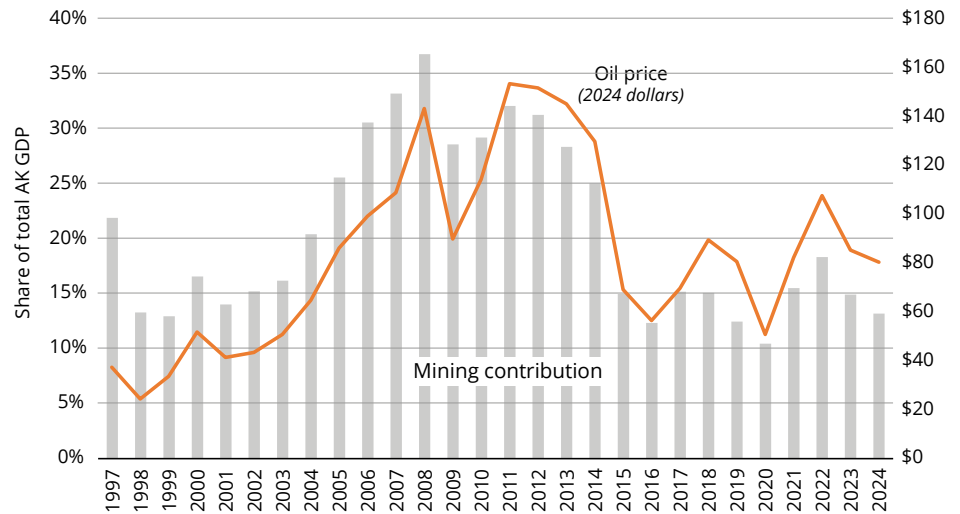
The economic impacts of the oil and gas industry are multiplied because the Alaska Legislature appropriates oil revenues for infrastructure projects, public education, and grant funding, to name just a few. The oil industry is also a crucial source of property and other tax revenues for local and tribal governments throughout the state.

With those layers of dependence, depressed oil prices of the last decade have been doubly painful for Alaska and are the main reason our GDP growth was one of the slowest among states.

What GDP looks like without oil

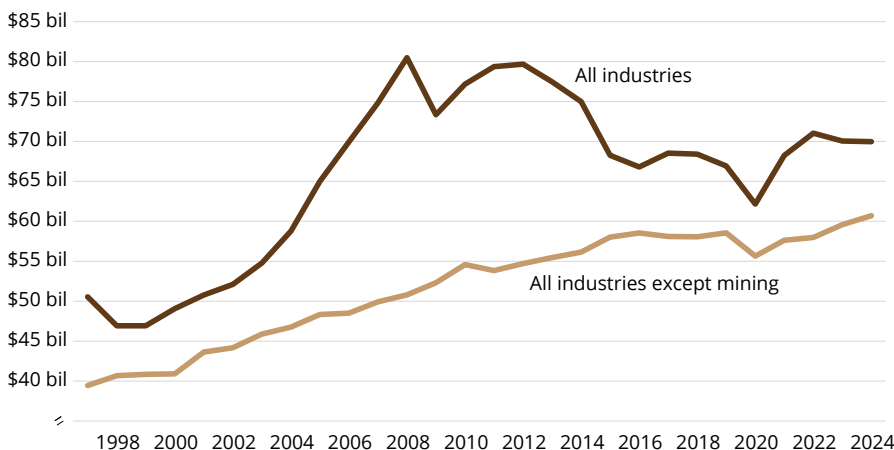
Interpreting Alaska's GDP

Oil price and mining contribution to GDP tend to track



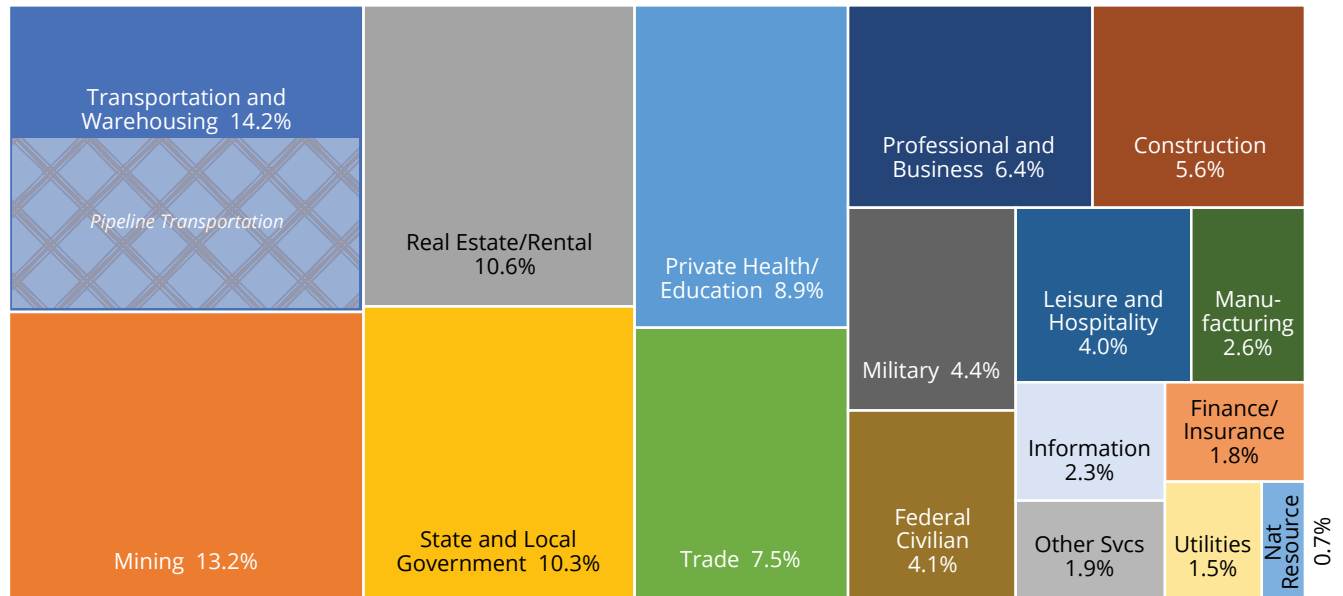
Source: U.S. Bureau of Economic Analysis, SAGDP2 GDP by state

Alaska's real GDP value with and without mining/oil



Source: U.S. Bureau of Economic Analysis, SAGDP2 GDP by state

Contribution by major industry to Alaska's GDP in 2024



Source: U.S. Bureau of Economic Analysis, SAGDP2 GDP by state

data can be challenging because prevailing commodity prices determine so much of its value. Commodities are raw materials, such as oil and gold, whose pricing is determined in global exchanges based on factors largely outside Alaska's control.

Because commodity prices are so volatile and exogenous, to some degree, they make Alaska's GDP a poor measure of local economic conditions. To evaluate Alaska's GDP without the volatility that international oil and metal prices introduce, we subtracted mining's contribution from Alaska's total GDP.

The lighter-colored line in the graph at the bottom of the previous page shows how the output of all other industries has changed over time. From 1997 to 2024, the average annual growth rate for the remaining real GDP was 1.6 percent. Over the same period, the same rate when it includes mining — the dark line — averaged slightly lower, at 1.4 percent a year, but was punctuated by extremes ranging from -9.0 percent to 10.6 percent growth.

This graph provides another visual representation of mining's volatility and its impact on Alaska's GDP. The state has tallied 12 years of GDP decline in the last 27. Removing mining reduces that count to just four.

The pandemic's impact on the remaining industries is also clear. Their share of Alaska's GDP did not recover to pre-COVID levels until 2023. In contrast,

About state-level GDP data

The U.S. Bureau of Economic Analysis compiles and reports state-level GDP data each quarter. GDP at the state level is less robust than national numbers because of smaller sample sizes, less diversification of industries, and the reliance on periodic sample-based survey data with imputations in nonbenchmark years.

Because of those limitations, state-level GDP can be volatile, and these swings don't necessarily indicate meaningful changes in the local economy. That is especially true in a state like Alaska, where globally priced commodities determine a large share of the GDP calculation. It's not unusual for GDP growth rates in Alaska to swing between losses and gains even as other economic indicators remain stable.

Despite these limitations, state GDP data can be useful, especially when looking at industry contributions and multi-year growth trends or comparing Alaska with other states or the nation.

mining growth pushed total GDP to recover two years earlier.

How much industries contribute to GDP

The exhibit on the previous page shows how much each major industry group contributed to the total value of Alaska's output in 2024. Some of these are broken out into smaller sectors that are particularly important in Alaska.

The mining sector's contribution was slightly overshadowed by transportation and warehousing, but more than half of the latter's value has historically come from pipeline transportation.

Most Alaska residents know how important the Trans-Alaska Oil Pipeline is to the state but may not see it as an asset that pumps billions of dollars in transportation services into the economy each year. This is another significant way oil prices underpin our economy and drive our GDP figures.

Other significant contributors to Alaska's GDP in 2024 included real estate, state and local government, and private health and education, which includes social services.

The sectors whose output grew the most over the last decade, averaging around 3 percent annually, were leisure and hospitality, transportation and warehousing, construction, and private health and education.

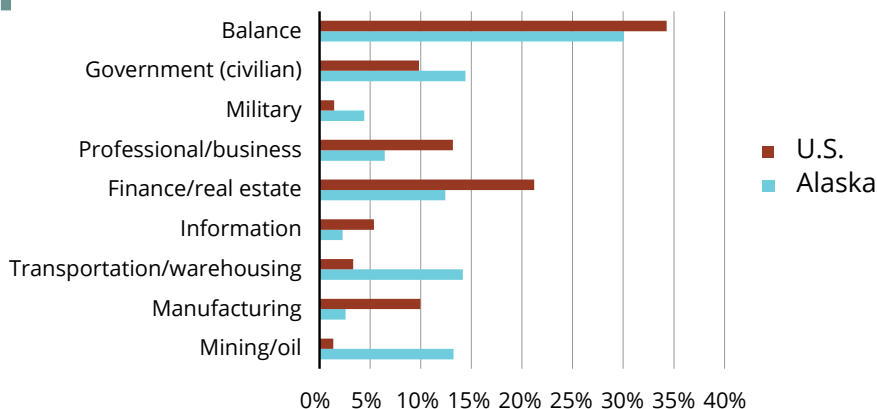
Conversely, the fastest-shrinking industries were mining and natural resources at -2.6 percent and -3.9 percent annually.

How Alaska's GDP mix compares to the nation

As is usually the case with Alaska, our GDP mix differs from the rest of the country in notable ways. The chart above shows the distribution of GDP contributions within each economy.

Alaska's mining share is almost 10 times larger than the nation's. Transportation and warehousing

U.S. and Alaska GDP by industry, 2024



Source: U.S. Bureau of Economic Analysis, SAGDP2 GDP by state

and the federal government — civilian and military — are also relatively large contributors in Alaska. Sectors relatively smaller in Alaska include manufacturing, information, and professional and business services.

Alaska's GDP reflects a slightly higher share from goods-producing industries than the nation, relative to service-providing industries (22/78 and 17/83). Alaska's government share of GDP relative to the private sector is also larger than the nation's (19/81 versus 11/89).

GDP is a limited measure when assessing overall economic health

State gross domestic product is one way to gauge economic conditions but it only tells part of a much larger story. While it tracks changes in the value of what we produce, GDP gives little information on jobs, workers, or consumers.

Similarly, employment levels are used broadly to diagnose the economy's health, but they too provide a limited view. GDP and employment levels can also move in different directions — they have diverged in seven of the past 20 years.

However, GDP can be an indispensable economic indicator when evaluated with other key data points such as jobs, income, and prices.

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