

UPS AND DOWNS

for oil industry jobs

Periods of job loss and where the industry stood at its 2015 peak

By NEAL FRIED

The decline in oil prices over the last couple of years led to major job losses for the oil and gas industry in Alaska in 2016. As of June, the industry's employment had fallen to 11,100 after reaching a record monthly average of 14,100 in 2015. (See the sidebar on page 8 for more about annual versus monthly numbers.)

Fluctuation is nothing new for Alaska oil industry employment, which has waxed and waned for decades. (See Exhibit 1.)

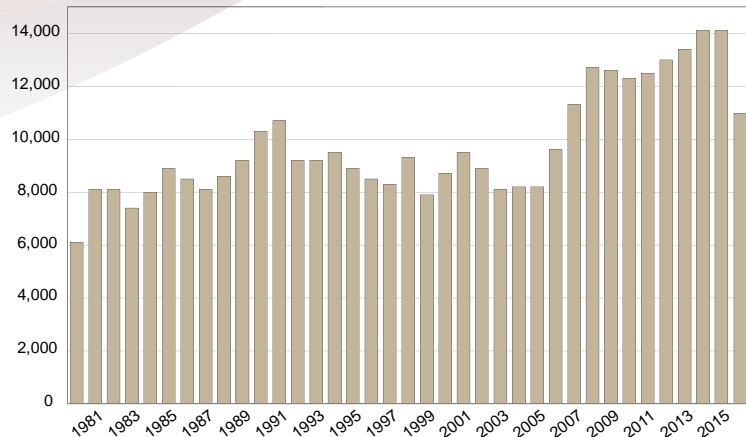
Prior to the most recent job loss, the industry had been on a decade-long growth trend — and that was preceded by a 15-year decline. Unlike the current contraction, however, Alaska's total job count continued to grow during those years.

The history since production peaked

The state's oil production peaked in 1988, and the

1 Volatile Decades for Oil Employment

ALASKA, 1980 TO 2015



Note: 2016 is preliminary.

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

industry reached a high of 10,700 jobs in 1991. It wouldn't break that 10,000 barrier again until 2006, though. With an extended period of low oil prices, the industry lost 2,200 jobs between 1991 and 1997.

That overall decline from 1990 to 2005 was marked by a few brief periods of recovery. In 1998, for example, development of a number of new fields boosted employment, but prices plunged the fol-

lowing year and for the first time since 1983, industry employment fell below 8,000.

Then in 2001, employment spiked, reaching a 10-year high with the development of the Alpine and North Star oil fields before falling that same year and hovering at the 8,000 level again through 2004.

By that point, Alaska's oil industry appeared to be entering a permanent era of stagnation or enduring decline. But four years of above-average oil prices — which by 2005 were more than double the 2001 low — breathed new life into the industry, which began to grow again with work on West Sak, maintenance in Prudhoe Bay, and continued development of a number of satellite fields. In early 2006, a section of BP's pipeline sprung a leak, resulting in hundreds of millions of dollars spent on repairs.

Record oil prices also ushered in a long list of new players and new projects, such as Pioneer Natural Resources and ENI's Oooguruk and Nikaitchuq offshore prospects. Other major players fueled further activity and growth, including big investments by

ConocoPhillips, Shell's massive offshore drilling efforts, and Exxon's Point Thompson undertaking to ship gas condensate. Relative newcomers such as Hilcorp led a big upswing in activity in Alaska's oldest oil and gas province, Cook Inlet.

That new work, along with continued maintenance, redevelopment of existing oil and gas fields, and exploration, contributed to record growth. By 2007, oil industry employment topped the 11,000 mark, which was the first in a series of employment records over the next seven years.

The industry broke the 12,000 jobs barrier the following year, then peaked at 14,100 in 2014 and 2015. It was a remarkable run, especially considering production was just a quarter of what it had been in 1988.

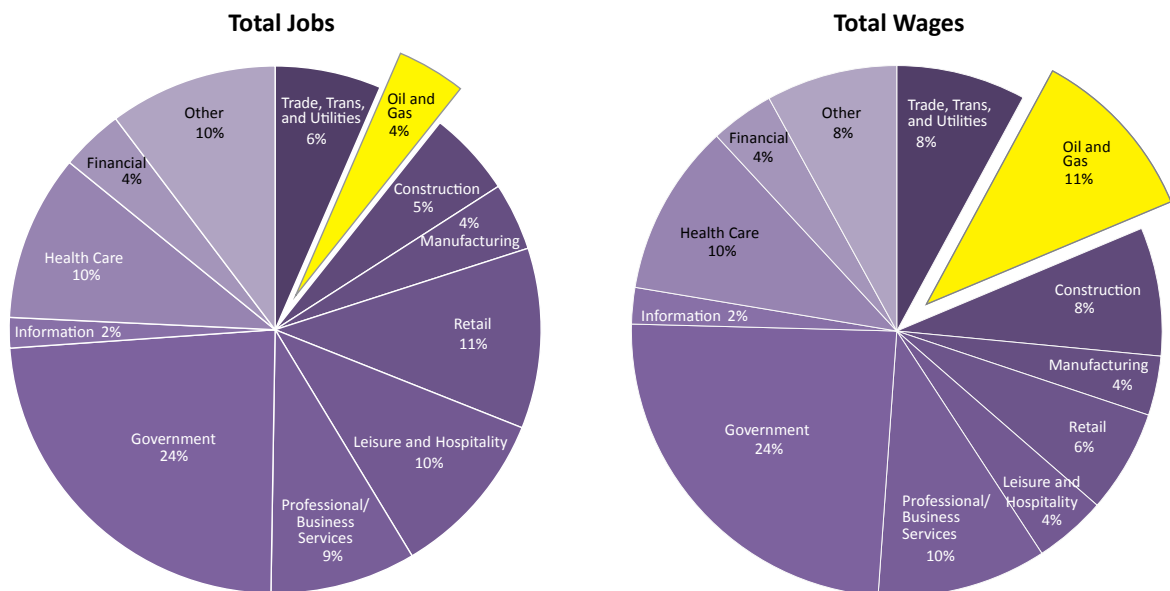
The exhibits on the following pages further illustrate this history and provide a snapshot of the industry and wages in Alaska at its most recent peak in 2015.

Neal Fried is an economist for the Department of Labor and Workforce Development in Anchorage. Reach him at (907) 269-4861 or neal.fried@alaska.gov.

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Oil Industry a Small Slice of Jobs, Bigger Share of Wages

ALASKA'S INDUSTRY MIX, 2015



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

Direct oil industry jobs represented 4 percent of all wage and salary employment for Alaska residents in 2015. Oil is a relatively small employer, but it carries a big punch. Because average earnings in the oil industry are more than two-and-a-half times the overall average, they represented 11 percent of the state's total wages in 2015, at \$2 billion. The industry's growth was so robust between 2005 and 2015 that its total wages grew by 123 percent in contrast to the 50 percent wage growth for all Alaska industries.

This article covers a narrow range of oil industry employers

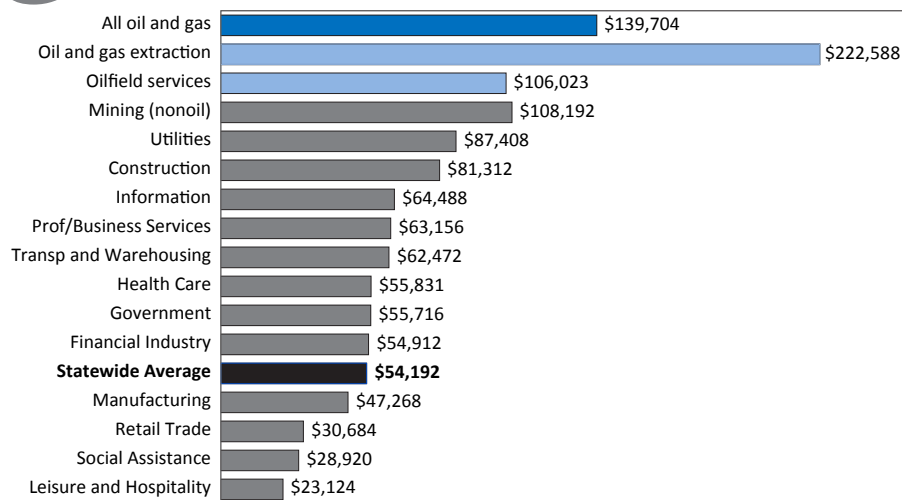
This article refers to a narrowly defined group of oil industry employers. In this case, a direct oil and gas employer is either an oil producer or an oilfield service company.

Thousands of other jobs directly serve this industry, but they aren't categorized as oil industry employers. For example, in fourth quarter 2015, a fourth of the jobs in

Prudhoe Bay were not identified as oil industry employers. Some of these included jobs in security, catering, accommodations, transportation, and engineering services. Although these jobs are important to the industry, and exist because of oil and gas operations in the state, they aren't included here. Pipeline transportation companies are also excluded from these numbers.

3 Oil Industry Earnings Are The State's Highest

ALASKA AVERAGE ANNUAL WAGES BY INDUSTRY, 2015

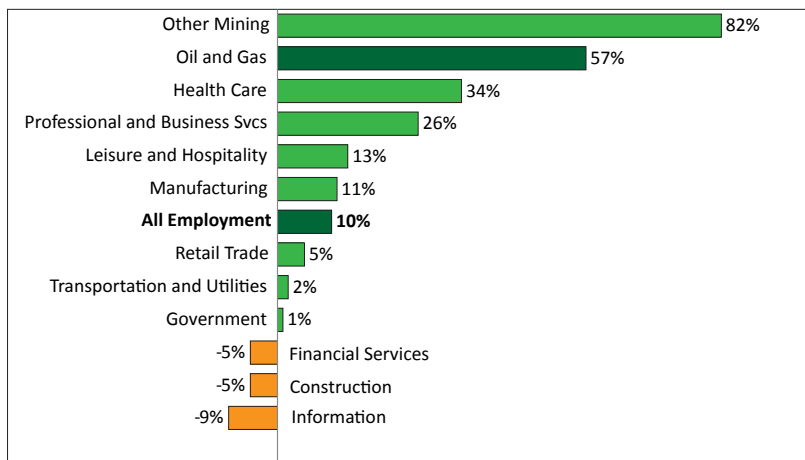


In 2015, annual average earnings for the industry were more than 2.5 times higher than the statewide average. The average for oil and gas extraction, which includes direct producers, was considerably higher than for oilfield services companies.

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

4 It Was a Strong Decade for Oil Industry Growth

PERCENT JOB GROWTH BY ALASKA INDUSTRY, 2005 TO 2015



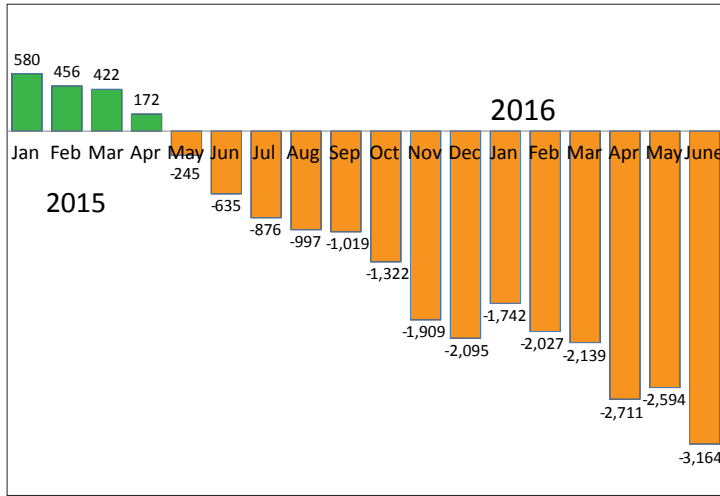
In addition to the oil industry reaching record employment levels during the past decade, it was the second-fastest-growing industry in the state. That hadn't happened since the 1970s.

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

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Growth Turned Negative in Spring 2015

OVER-THE-YEAR CHANGE IN OIL INDUSTRY JOBS



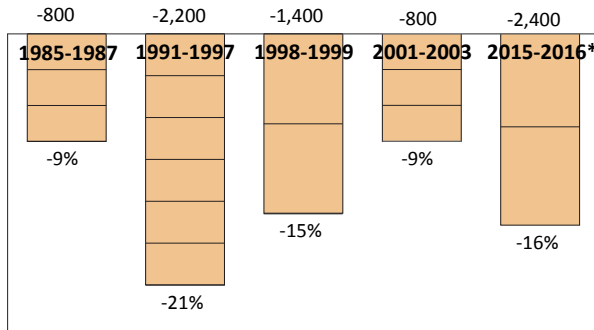
The most recent numbers for oil and gas employment show the industry started to shed jobs in May of 2015 and losses gained momentum in 2016. It's unclear how long this trend will continue, as oil prices will play a critical role.

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

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Comparing Modern Periods of Oil Industry Job Loss

CONTRACTIONS BY NUMBER AND PERCENT



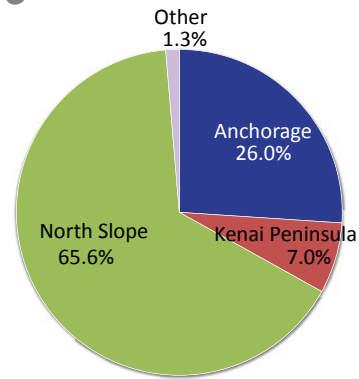
*Compares the first six months of 2015 with first six of 2016
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

The industry has weathered several periods of major job loss in recent decades. The largest to date, which also spanned the longest period, took place between 1991 and 1997 when oil prices hit rock bottom. Those losses did not send Alaska into a recession, however, and the state's total job count continued to grow during those years.

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Most Jobs on Slope

ALASKA OIL INDUSTRY, 2015



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

Nearly all oil employment is based in three areas: Anchorage and the North Slope and Kenai Peninsula boroughs. Oil comes from the latter two, and Anchorage serves as the headquarters or service center. In Valdez, the terminus for the Trans-Alaska Oil Pipeline, jobs are mostly in moving oil, so they're counted as transportation jobs. Fairbanks also has a relatively small number of jobs, but it is a major logistic and supply center for the North Slope.

Annual averages don't reflect monthly swings

The numbers in Exhibit 1 and throughout this article are average monthly job counts for the stated year unless otherwise specified. That can create the appearance of stability, when in reality jobs can fluctuate significantly over the course of the calendar year.

For example, the average monthly job count in 2008 was 12,700, and for 2009 it was down by just 100 jobs, to 12,600. But during a period of extreme oil price volatility in 2008, job counts rose from 12,000 in January to 13,400 by December, then fell from 13,200 in January 2009 to 11,900 by December.

For monthly job counts, see live.laborstats.alaska.gov/ces/.

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Oil Industry Earnings and Workers

BY BOROUGH OR CENSUS AREA OF RESIDENCY, 2015

	Workers	Earnings	Avg Earnings
Anchorage Municipality	5,121	\$716,159,556	\$139,848
Matanuska-Susitna Borough	2,713	\$281,270,012	\$103,675
Kenai Peninsula Borough	2,536	\$276,596,446	\$109,068
Fairbanks North Star Borough	855	\$74,742,553	\$87,418
Valdez-Cordova Census Area	153	\$13,142,920	\$85,901
Yukon-Koyukuk Census Area	70	\$5,327,880	\$76,113
North Slope Borough	58	\$2,424,665	\$41,805
Southeast Fairbanks Census Area	57	\$5,019,637	\$88,064
Juneau, City and Borough	17	\$1,471,406	\$86,553
Prince of Wales-Hyder Census Area	15	\$926,456	\$61,764
Kodiak Island Borough	14	\$1,075,089	\$76,792
Denali Borough	13	\$1,152,808	\$88,678
Northwest Arctic Borough	13	\$407,513	\$31,347
Dillingham Census Area	12	\$584,924	\$48,744
Haines Borough	12	\$564,444	\$47,037
Lake and Peninsula Borough	10	\$597,593	\$59,759
Sitka, City and Borough	7	\$1,072,165	\$153,166
Bethel Census Area	6	\$290,190	\$48,365
Hoonah-Angoon Census Area	5	\$332,040	\$66,408
Ketchikan Gateway Borough	5	\$577,844	\$115,569

Note: Only areas with five or more workers are disclosable.

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

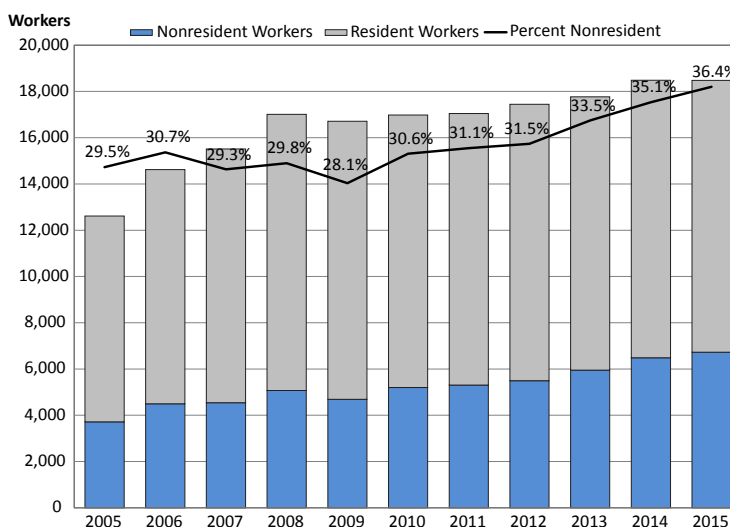
Even though most of the industry's jobs are concentrated in three areas, its resident workforce comes from nearly every part of the state. A prime example is the Matanuska-Susitna Borough, which has neither oil industry employment nor production. However, in 2015, 2,713

Mat-Su residents worked in the industry and earned \$281 million. That figure is especially significant considering Mat-Su's locally generated payroll was just \$906 million. In 2015, 8 percent of workers living in Mat-Su commuted to the North Slope.

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A High Percentage of Nonresident Workers

ALASKA OIL INDUSTRY, 2005 TO 2015



In 2015, the oil industry employed a record number of nonresidents. For the third year in a row, over a third of its workers were not Alaskans, as determined by Permanent Fund Dividend eligibility criteria. Nonresidents represented over 36 percent of the oil industry workforce and earned 34 percent of its total wages, adding up to \$708 million. On average, nonresidents in the industry earned \$105,158 and residents earned \$118,092.

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