

IS ALASKA IN A RECESSION?

Using job levels to define the term, and what history tells us

By **DAN ROBINSON**

Talk of Alaska being in a recession — or heading for one — has grown over the last year as oil prices have plunged. But what exactly is a recession, and what does it mean if we're in one?

For states, there's no accepted definition of a recession, and coming up with one isn't clear-cut. Nationally, the National Bureau of Economic Research — a private, nonprofit research group — and its Business Cycle Dating Committee are the recognized authority on identifying when the country entered a recession and when it ended. For example, the most recent national recession, often called the "Great Recession"

because of its severity, began in December 2007 and ended in June 2009.

NBER considers a number of economic indicators in dating recessions: gross domestic product, employment, unemployment, personal income, and industrial production, among others. Though it's common to hear that a recession is two or more consecutive quarters of declines in gross domestic product, which is appealing in its simplicity, that is not the definition the NBER uses. Instead, NBER defines a recession more broadly as "a significant decline in economic activity that spreads across the economy."

Since the 1970s, NBER has identified the following six U.S. recessions (see Exhibit 1):

Why unemployment rates can be misleading in state recessions

For the U.S. economy, one of the clearest signals of a recession is a high unemployment rate, and low rates typically mean the national economy is strong. That's not always the case for Alaska, where the migration of job seekers to and from the state complicates matters.

Alaska unemployment rates were relatively high even during the boom years of pipeline construction — in the 8 percent range — primarily because the promise of high-paying jobs lured a significant number of people who didn't yet have a job. For a short period, at least, many would have been counted as unemployed.

After the pipeline was completed, the unemployment rate rose, but not nearly as much as the sharp job losses of the period would have suggested. The rate rose from 7.6 percent in 1976 to 10.6 percent in 1978. Some of the pipeline workers left the state when the project was completed rather than remain in the state to be counted as unemployed.

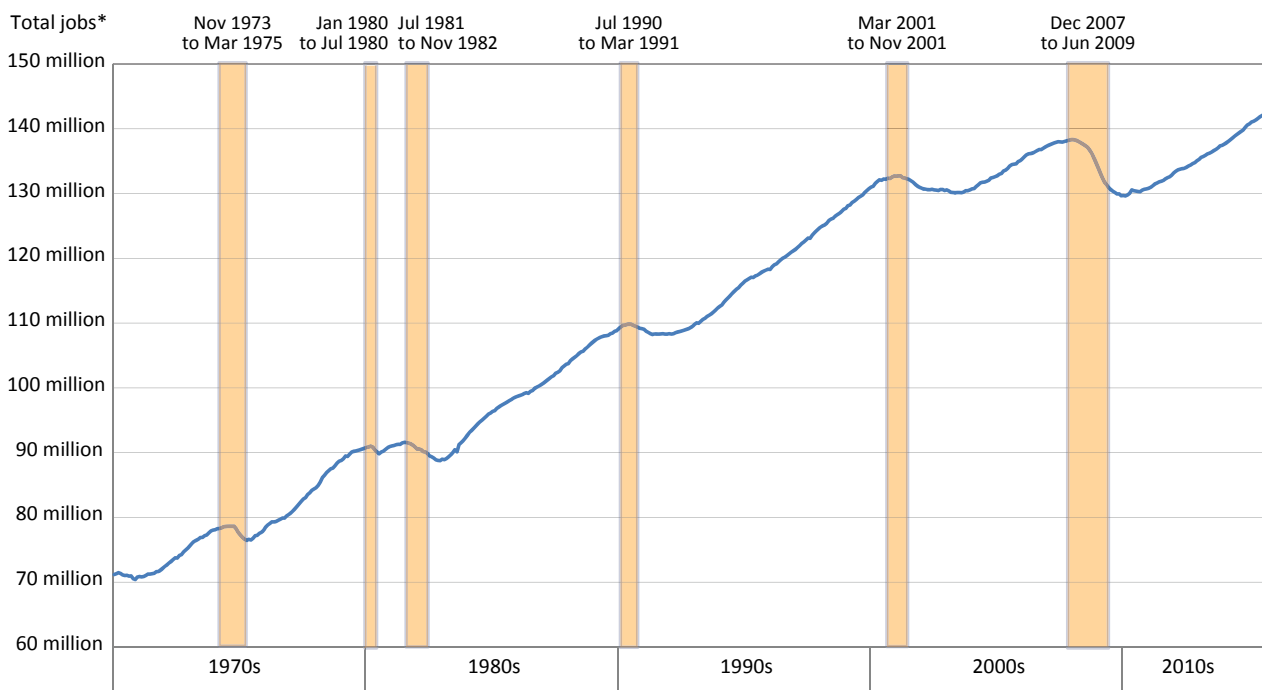
The economic boom of the early 1980s was also marked by relatively high unemployment rates in Alaska as, once again, a strong economy brought in large numbers of job seekers. Unemployment rates in the first half of the 1980s were mostly in the 9 percent range and were closer to 10 percent from 1982 to 1985.

When the bottom fell out of the state's economy in 1986, the unemployment rate rose to nearly 11 percent, but that was once again a fairly small increase relative to the heavy job loss of the period. Many who lost their jobs left Alaska and either found work elsewhere or were counted as unemployed in another state.

Alaska unemployment rates followed a more typical recessionary pattern during the recession of 2009 because, as noted in the sidebar on population loss on page 8, the national economy was so weak that Alaskans who lost their jobs didn't have as much incentive to leave the state.

1 U.S. Recessions and Total Job Levels

1970 to 2015



*This count does not include the self-employed or military.

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

- November 1973 to March 1975 (16 months)
- January 1980 to July 1980 (6 months)
- July 1981 to November 1982 (16 months)
- July 1990 to March 1991 (8 months)
- March 2001 to November 2001 (8 months)
- December 2007 to June 2009 (18 months)

The recession definition we propose is at least three consecutive quarters of over-the-year job losses.

But national recessions don't always reach Alaska, and Alaska's "significant declines in economic activity" can be state-specific. For example, completion of the Trans-Alaska Oil Pipeline in the 1970s had little immediate effect on the U.S. economy, but the state's job count fell by almost 10 percent from 1976 to 1977. During that period, the U.S. economy added jobs at a rate of more than 4 percent.

Can Alaska recessions be defined the same way?

NBER doesn't date recessions at the state level. One reason it would be difficult to use NBER's approach at a state level is there are fewer economic indicators, and those available tend to be less statistically reliable and less current. National recessions often affect much of the country anyway, making detailed analysis at the state level redundant.

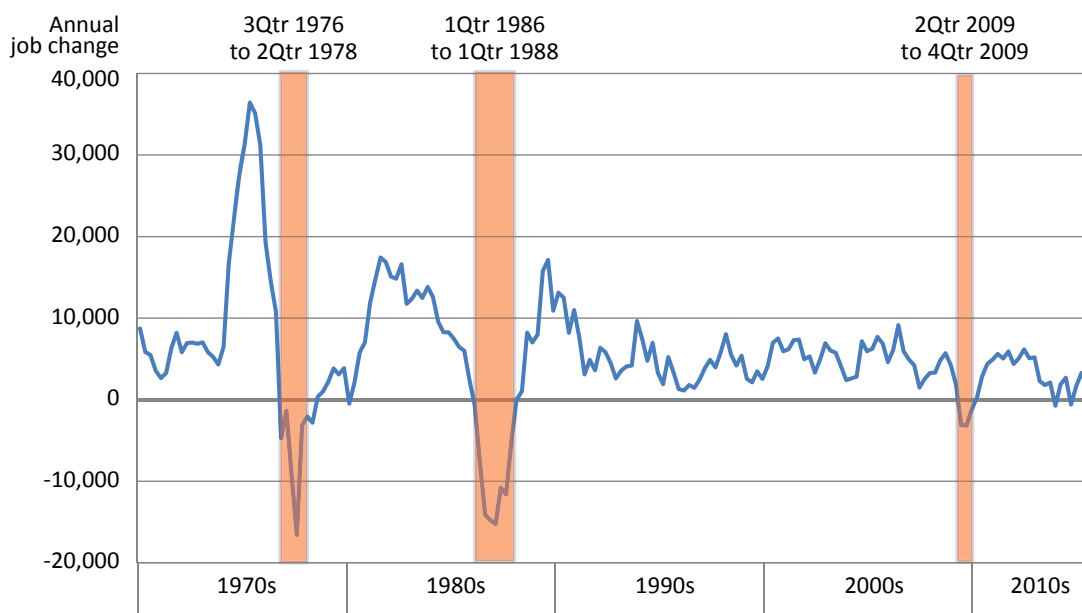
Job loss is always part of it

Despite the complex analysis in determining U.S. recessions, every recession includes job loss. The severity and duration vary, but all six of the recessions since the 1970s have produced significant employment decline. The causes differed by recession, but over the last 34 years there has never been a U.S. recession without net job loss, and there has never been significant net job loss outside a declared recession.

For that reason, job loss is the most obvious candidate for identifying state recessions. (See the sidebar

2 Alaska's Recessions and Job Losses and Gains

1970 to 2015



*This count does not include the self-employed or military.

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

on page 9 for more on why state GDP is less useful for this purpose.)

Keeping in mind that recessions are significant declines in economic activity spread across the economy, the job loss must be large enough or across enough sectors to reduce the state's total job count.

Alaska has a combination of highly seasonal industries and industries with more stable year-round job counts. To avoid labeling a bad fishing year or a weak construction year a recession, the recession definition we propose is *at least three consecutive quarters of over-the-year job losses*. That means losses would have to include either the fourth or first quarter, when the state's large seasonal industries are at their low points.

Alaska's three modern recessions

By this proposed definition, Alaska has had three recessions since 1970 — half as many as the U.S. economy (see Exhibit 2):

- Third quarter 1976 to second quarter 1978 (eight quarters)
- First quarter 1986 to first quarter 1988 (nine quarters)

- Second quarter 2009 to fourth quarter 2009 (three quarters)

1976 to 1978

After completion of the Trans-Alaska Oil Pipeline, the state entered its first recession, which lasted from the third quarter of 1976 through the second quarter of 1978. Although job losses were severe — the state had 17,000 fewer jobs in the third quarter of 1977 than in the same quarter a year earlier, a steep decline of 10 percent — that period lacked the somber mood that characterizes most recessions.

Alaskans knew roughly when the huge pipeline project would conclude and that many construction and related jobs would end then, too. That pill was easier to swallow because of the incredible growth during the pipeline construction years. The state's peak job count during pipeline construction was nearly 189,000 during the third quarter of 1976, up an extraordinary 85 percent from third quarter 1970's total of 102,000.

Although job numbers fell after completion, the state gave up just a fraction of the growth the project stimulated, and only temporarily. More precisely, pipeline construction jobs created thousands more that lasted long after the pipeline was completed.

Why exhibits 1 and 2 on the U.S., Alaska recessions look different

To illustrate how job losses always accompany recessions, Exhibit 1 shows U.S. recessions in the shaded areas and seasonally adjusted U.S. job counts from 1970 to 2015. However, we didn't replicate that graph for Alaska in Exhibit 2 for comparison.

First, Alaska's job numbers are harder to seasonally adjust because the state's economy is unusually seasonal, so it requires even more adjustment. Second, our seasonal patterns can shift when salmon don't arrive on time or when weather affects the length of construction seasons, so the adjustments are often initially too high or too low.

The point of seasonally adjusting data is to make underlying trends more apparent by smoothing out the line, but seasonally adjusting Alaska's data often has the opposite effect, with jumps and dips that can only be explained as data anomalies rather than real economic change.

One option would have been to look at the total number of Alaska jobs without seasonally adjusting them. But that would also be problematic because the seasonal ups and downs would distract from the central question: Is the state's economy expanding or contracting underneath the normal seasonal patterns?

What Exhibit 2 shows, rather than the actual job levels for Alaska, is the *change* in job counts from the same quarter in the previous year. That was the easiest way to identify periods of job loss in the state's history without extraneous information. What's lost is the actual number of jobs over that period, but that's secondary to our main purpose of identifying periods of job losses and gains.

Another point for the more technically minded is that the department works with the U.S. Bureau of Labor Statistics to produce two different sets of job numbers. The first, called the Current Employment Statistics program, surveys a sample of employers and uses that information to estimate jobs. The second, called the Quarterly Census of Employment and Wages, uses employment numbers that nearly all Alaska employers are required to provide as part of their quarterly unemployment insurance reporting.

The data in Exhibit 2 are from the QCEW program because that data set is much more reliable; it comes closer to being a full census count instead of a sample-based estimate. The monthly job estimates, published on both the BLS and state Web sites, is more current but is too volatile to depend on when identifying a state recession.

One final note on these sources: Once a year, we revise or "benchmark" the job estimates from the CES program using the more reliable QCEW data, so historical job numbers from both programs are reliable.

It would also be a mischaracterization to say that outsiders came to Alaska to build the pipeline and left when it was done. It's true that tens of thousands moved here to work on the pipeline or in related businesses — the state netted more than 55,000 people through migration from 1973 to 1976, a 16 percent jump — but the backflow was a much smaller 20,000 from 1977 to 1980, or a 5 percent loss.

Pipeline completion meant oil would soon start flowing, and with the high oil prices of the 1970s, that meant unprecedented new wealth for the state.

Therefore, despite the large job count decline, "recession" hardly seems the right word for that period. In some ways it resembled the 1945 national recession that came after World War II ended and the huge demand for military weapons dried up. Though jobs disappeared and economic upheaval and transition followed, in both cases the underlying causes were mostly welcome.

1986 to 1988

The Alaska recession of the late 1980s, on the other hand, was fully charged with the misery typically associated with recessions. As is often the case, this recession was a corrective response to parts of the

economy overheating. New oil revenue gave the state money to spend on capital projects and government operations, and budgets ballooned. Residential and commercial construction swelled and despite big increases in supply, home prices jumped by more than 50 percent from 1980 to 1985.

Oil prices eventually plunged, state spending was slashed, foreclosures piled up, banks failed, and net migration turned sharply negative. By the time losses wound down in the third quarter of 1987, the state's job count had shrunk by about 20,000, a three-year drop of 8 percent.

For perspective, the total job loss for the U.S. economy in the Great Recession of 2007-2009, easily the biggest since the 1930s Great Depression, was a little over 6 percent.

2009

A third type of recession nudged Alaska's numbers into the red for three consecutive quarters in 2009. Unlike the two previous state recessions, which had specific Alaska causes, this one was solely due to external forces. The losses were severe for the country as a whole but mild for Alaska, and state growth quickly resumed in the first quarter of 2010.

Population losses during state recessions

An important element of Alaska recessions that's a nonfactor nationally is population loss, because it's much easier to migrate from one state to another than to migrate to or from the United States.

Alaska's yearly interstate migration flows are especially large as a percentage of our population to start with. As many as 50,000 people migrate both to and from Alaska every year.

During two of the three recessions identified on page 6, the combination of more people leaving and fewer arriving caused the state's population to temporarily drop. From 1977 to 1978, 13,414 more people left Alaska than arrived, leading to an overall population loss of 6,400 people. (The other factor in population change is natural increase, or births minus deaths, which has been positive since at least 1945.)

During the recession of the 1980s, Alaska's net migration losses were over three times larger than they were in the 1970s recession. From July 1985 to June 1989, the state lost a little more than 44,000 people through net migration. However, the state's total population over that period fell by

just 5,000, because natural increase again offset most of the migration loss.

Because the state had a much younger population during the 1980s, birth rates were even higher and death rates lower, which helped reduce overall loss. From 1985 to 1986, for example, almost six times as many people were born than died (12,556 births to 2,110 deaths). From 2014 to 2015, the ratio of births to deaths had shrunk to 2.6 (11,327 births to 4,282 deaths).

During the third recession, in 2009, Alaska actually gained population when about 8,500 more people moved here than left from 2008 to 2009 as the national economy faltered. That highlights an important point about the effect an impending Alaska recession might have on the state's population: The relative economic health of the rest of the country matters.

During the 2009 recession, although Alaska's job market was weak, it was much stronger than almost every other state. That meant Alaskans had less incentive to leave looking for sunnier skies and healthier job markets, and newly unemployed workers from other states had more incentive to move to Alaska. Today, although laid-off Alaska oil and gas workers would be unlikely to find better prospects in other states, workers in other Alaska industries probably would.

Tourism, construction, and a handful of other parts of the private sector lost jobs, but the government sector remained stable. Because the recession was deep and national, the federal government extended unemployment benefits, spent heavily on projects meant to stimulate growth, and increased funding for job training programs.

As a result, Alaska's economy got a boost even though it was never in serious distress, unlike states where the housing bubble was pronounced. In that sense, Alaska was like a patient with a mild flu who received a strong dose of medicine formulated for sicker people.

In 2016, the situation is very different. The cure to Alaska's more serious economic woes will have to come mostly from inside the state.

Is Alaska currently in a recession?

Coming full circle, the answer to whether Alaska is in a recession now is that it's still too early to tell, given data limitations and the proposed definition of three consecutive quarters of job losses. Reliable job numbers are available through the third quarter of 2015, and they show the state was still adding jobs at a very modest rate, at least up to that point.

The soonest a recession could have begun would be the fourth quarter of 2015. Preliminary job numbers suggest growth nearly dried up in the fourth quarter. Oil jobs began falling after holding steady longer than elsewhere in the country, and state government job counts were already down by more than 1,000 and expected to fall further.

Whether the expected recession is eventually determined to have begun in the fourth quarter of 2015 or the first quarter of 2016, the writing is on the wall in the form of low oil prices, declining oil production, and a large state government budget gap.

Why it matters

What difference does it make, in the end, whether the state is already in a recession or about to enter one? The specific determinations of when a recession begins and ends and how we should define them in Alaska are academic and subject to judgment calls — but the exercise gets at the underlying issue, which is identifying whether an economy is growing or shrinking.

Perceptions, accurate or not, clearly affect the decisions of consumers, businesses, and governments. People think differently about whether to buy or sell a house, for example, or start a business. Businesses reassess hiring and investing. And governments think

differently about how their decisions to increase or decrease spending will affect the economy.

Another reason identifying recessions matters is that they tend to follow the same patterns. Heading into a recession is predictably unsettling — like the feeling of falling into a hole before knowing how deep it is — but it's important to know that recessions tend to have short life spans.

None of the U.S. recessions since the 1970s lasted longer than 18 months, and the longest of the three Alaska recessions was just over two years. Whether through policy changes or the self-correcting mechanisms of markets, recessions are the exception rather than the rule. It's far more common for an economy to be expanding than contracting.

Alaska has substantial economic assets and there's no reason to think the state's long-term economic future is bleak. But that doesn't mean a recession will be

easy, short, or pain-free.

Factors outside the state's control will play a part in a recession's duration and severity, with oil prices at the top of that list, but the state has an unusual amount of influence over its short-term economic future.

How and when Alaska deals with issues that *are* within its control will play a major role in shaping a likely recession and recovery. Alaska's modern economy has always been based on its resource wealth, and that isn't likely to change in the near future. What the state is wrestling with now is how much it will continue to rely on oil revenue to fund state government, the size of its state government, and the best way to leverage its significant savings for both its short-term and long-term interests.

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Why GDP isn't a good indicator for determining state recessions

Given the important role gross domestic product plays in determining U.S. recessions, why not use GDP by state to help define Alaska recessions? The main reason is GDP for Alaska, defined as the national prices for the goods and services produced within the state, tends to rise and fall with oil prices, and short-term declines in oil prices don't necessarily cause a "significant decline in economic activity that spreads across the economy."

Many oil companies operating in Alaska are international and publicly traded, and when oil prices rise or fall, much of the initial benefit or loss goes to company operations and shareholders outside the state. Ultimately, those price fluctuations affect economic activity within the state — for example, increases or decreases in exploration and development as well as oil-related state revenue — but not nearly to the degree that the GDP numbers rise and fall.

A few examples are helpful. From the second quarter of 2008 to the first quarter of 2009, Alaska's GDP (in 2009 dollars) rose 18 percent due to an oil price spike. Meanwhile, the state gained a modest 1.3 percent in employment and then lost 0.4 percent in 2009 as a result of the national recession. Looking at just the GDP data would have given the false impression the state was in a boom in 2008 and 2009.

Then when oil prices fell, state GDP dropped by 9 percent from the first quarter of 2009 to the first quarter of 2010: a much larger dip than jobs, wages, income, or any of the other measures of broad economic activity over that period.

Even if GDP were used in combination with other economic indicators to identify state recessions, the exaggerated influence oil prices have on Alaska's GDP would be problematic. For now, we believe the simplicity of defining a recession by sustained job loss is the better approach.