

# Best Estimates Show Ongoing Job Loss

Clearing up some potentially confusing data

By **DAN ROBINSON**

**A**laska has been shedding jobs for a little more than two years, and there's a lot of interest in when the numbers will turn positive again. We'll come back to that, but first it's necessary to explain how a familiar set of numbers on our Web site may have tripped up people hungry for signs of a recovery. (See Exhibit 1.)

## Estimates eventually turn into counts

The most recent job numbers reported by us or anyone else are estimates, usually based on a survey of a small but statistically significant percentage of employers.

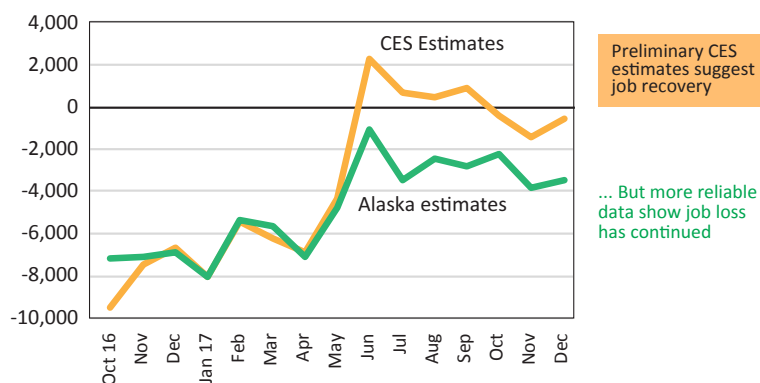
Eventually these estimates become closer to actual counts, thanks to the quarterly reports that nearly all employers are required to file under state unemployment insurance laws. These reports include the number of people who worked each month and the amount of money they were paid over the quarter.

That reporting isn't perfect — some employers make mistakes or fail to report — but because the reporting is mandatory and there are legal consequences for failing to report or for deliberately misreporting,

# 1

## Two Data Sets Tell Conflicting Jobs Story

CHANGE IN ALASKA JOBS FROM SAME MONTH PRIOR YEAR



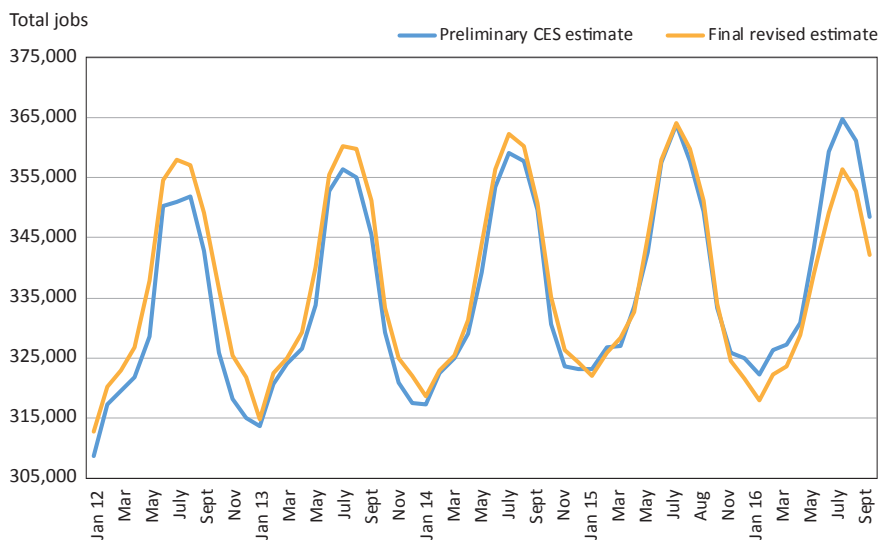
Sources: Current Employment Statistics; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

the numbers are reliable and much more accurate than the job estimates. The quarterly numbers have a roughly six-month lag, but once they become available, the original estimates' usefulness expires.

Specific to our current timeframe, the more complete data are available and published through the second quarter of 2017, and third quarter data are nearly complete and provide solid information about jobs through September. From that data, we know with a high degree of certainty that Alaska continued to lose jobs through at least September 2017. (See exhibits 1 and 4.)

# 2 Revisions to CES Estimates Have Been Large

## CURRENT EMPLOYMENT STATISTICS, 2012 TO 2017



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

### Why the U.S. Bureau of Labor Statistics made the change

Although the loss of state control over the CES estimates and the more mechanized estimation process produces less reliable data for Alaska’s uses, the change benefitted the program at the national level.

One concern that precipitated the change was that during big shifts in economic trends — the beginning of a recession, for example — the national CES estimates captured the turning point but states as a group weren’t able to identify the shifts as quickly.

State-level use of the estimates doesn’t always match national-level use, either. In Alaska, being able to provide reliable over-the-year job growth information is important, but seasonally adjusted monthly job numbers get little use.

For national-level analysis, it’s useful for all 50 states’ estimates to be comparable in the way they’re produced and to be of similar reliability. BLS determined that the increased month-to-month volatility at the state level was an acceptable price to pay for that.

### Two different federal-state statistical programs

States work with the U.S. Bureau of Labor Statistics on a handful of programs that produce key labor market information: jobs, wages, wage rates, and unemployment rates. These programs have names and acronyms that only the highest-end users need to know or care about. If government statistical agencies do their job well, users shouldn’t need specialized knowledge of processes or acronyms to answer important economic questions such as whether the state is adding or losing jobs.

Explaining the accuracy of recent job estimates is an exception to the rule about not burdening users with behind-the-scenes details, and that requires looking first at two of these federal-state programs: the Current Employment Statistics program and the Quarterly Census of Employment and Wages.

The easier of the two to explain is the Quarterly Census of Employment and Wages, which accesses the quarterly information employers file under unemployment insurance laws discussed above and converts it to employment and wage data broken out by industry and geography down to the county level, which equates to boroughs and census areas in Alaska.

It’s because of the QCEW program, for example, that we know there were 100 construction jobs in Bethel in June of 2017 and that gas stations in the Kenai Penin-

sula Borough paid about \$772,000 in wages in the second quarter of 2017.

The other program, Current Employment Statistics, is designed to do what the first word in its name suggests: estimate the current number of jobs in an economy. The Bureau of Labor Statistics has produced national employment estimates since 1915 and has worked with state agencies to produce estimates for all 50 states since 1949.

### How accurate are the CES estimates?

For the last several years, the CES estimates have become misleading enough that we've stopped talking about them in our monthly economic press release or in *Alaska Economic Trends*.

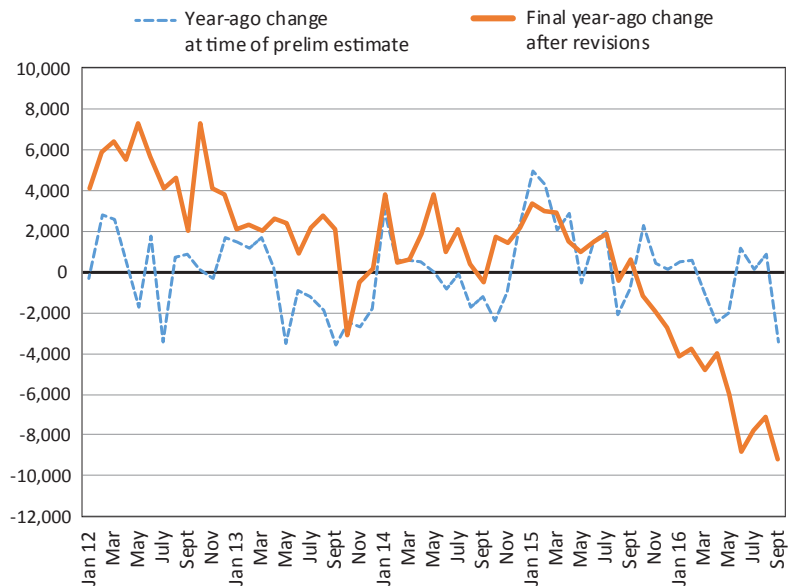
Alaska is one of the smallest states in the country and the most seasonal, both of which make producing reliable sample-based estimates more difficult.

Another complicating factor is that since 2011, states have had less control over their estimates. Until then, states had wide latitude to adjust them when state economists felt it was warranted.

Using that approach, the average difference between Alaska's preliminary estimate and the final revised number was 1,900 jobs over the 2004-2010 period. That meant the estimates were revised by well under 1 percent on average.

## 3 CES Estimates Paint Muddy Picture

### CURRENT EMPLOYMENT STATISTICS, 2012 TO 2017



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

Another strength when state economists had control over the estimates was that they showed little directional bias. In other words, they weren't consistently too high or too low. Summing the difference between the seven years of monthly preliminary estimates and the final revised data shows the estimates were on average 400 jobs low per month, meaning state analysts showed a small bias on the low side over the extended period.

Knowing that the methods BLS implemented in 2011 were more mechanical and done primarily by national technicians with substantially less local knowledge,

### CES numbers go through revisions, are reliable as a historical series

Although the Current Employment Statistics preliminary estimates are problematic, they become reliable as a historical series once the estimates go through their first major revision, which relies heavily on Quarterly Census of Employment and Wages data. (See the article for an explanation of QCEW.)

For states, that revision occurs in the first few months of the year and covers the period through the third quarter of the previous year. So, for example, the next round of CES annual revisions is in progress now and revised numbers will be published in March.

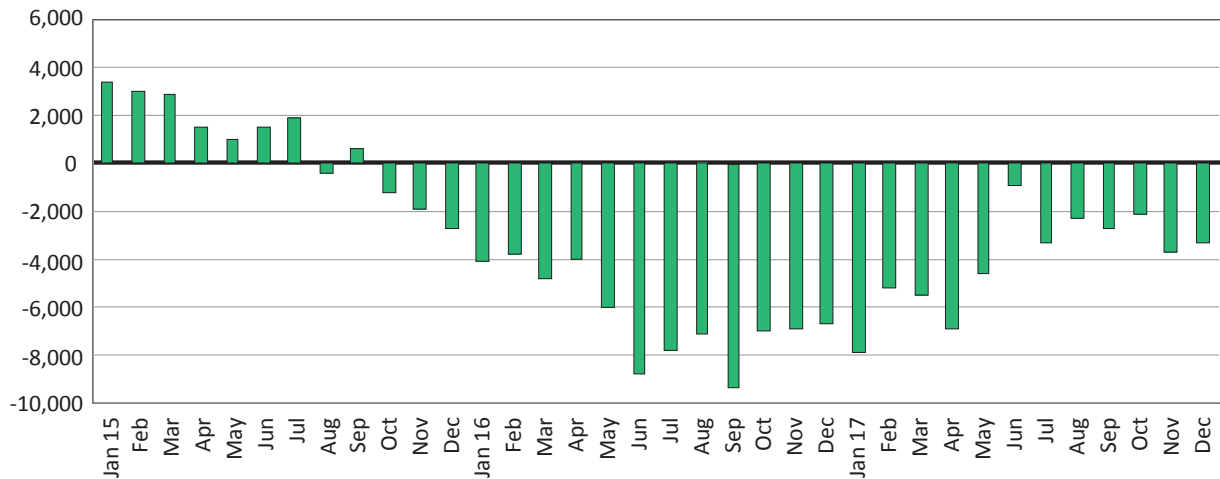
QCEW data through the third quarter of 2017 will guide those revisions, although subsequent months — from October 2017 forward — will also be revised in a process called “re-estimation.” Those numbers are likely to be more accurate than the original estimates, but could still be volatile.

To make all this clear, our Web site will switch from the CES numbers to our alternate employment estimates for October 2017 onward and make it clear that the numbers from October on are produced by Alaska analysts rather than the CES program. <http://live.laborstats.alaska.gov/ces/index.cfm>

# 4

## Job Losses That Began in 2015 Continue

ALASKA, EMPLOYMENT COMPARED TO SAME MONTH THE PREVIOUS YEAR, 2015 TO 2017



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

we alerted users at the time that the estimates would become more volatile and advised caution about reading too much into the monthly swings or apparent new trends.

The average revision in Alaska’s job numbers since BLS took control of the estimates has been 3,400 jobs, and the bias has been distinctly on the low side, with the summed difference between the estimates and the final revised data being low by an average of 1,500 jobs a month.

Even more problematic were the longer stretches when CES estimates were especially high or low — if taken at face value, they erroneously show turning points in Alaska’s economy.

From May through December of 2013, for example, the estimates showed Alaska down an average of 2,300 monthly jobs from their year-ago levels, enough of a decline that if accurate would have signaled Alaska was entering a recession. The revised numbers showed, as state economists expected they would, that Alaska consistently added a modest number of jobs over that period.

Overall, the estimates have tracked with Alaska’s seasonal pattern, but they’ve substantially underestimated summer job counts in 2012-2014 and substantially overestimated summer job counts in 2016. (See Exhibit 2.) What the estimates said about over-the-year losses or gains painted a muddled picture of the 2012-2016 economy, a period during which the revised data showed a clear growth trend that shifted to a clear recessionary trend of job loss. (See Exhibit 3.)

### Alternate estimates based on QCEW projections

After first continuing to publish the CES job estimates in our monthly press release with a warning about their reduced reliability, we decided they were doing more harm than good and instead included only the unemployment rate as the key monthly labor market measure in the press release.

But giving the public some idea of what’s happening with the state’s job count — one of the best measures of broad economic health — is important enough that since July 2016, we’ve generated alternate employment estimates based on projections of the reliable though less current QCEW data and included them in our monthly press release.

We revise our QCEW-based estimates as soon as a new quarter of QCEW data becomes available, so we’re always discussing employment estimates and revised data in which we have confidence.

To date, we’ve continued to publish the CES estimates on our Web site with a warning that the estimates “are likely to see especially large revisions” and a link to our monthly economic press release for a more accurate estimate of overall state employment.

That brings us back to how someone could get the wrong impression about the direction of the state’s economy. CES numbers taken from our Web site show the state’s job count going from well below year-ago levels in May 2017 to suddenly more than 2,000 above

year-ago levels in June, as shown by Exhibit 1 at the beginning of this article. The numbers then remain above year-ago levels through October before dipping again during the last two months of the year.

As noted, based on published QCEW data through the second quarter of 2017 and nearly complete data through third quarter, it's almost certain that job losses continued through at least September. Beyond that, there are more question marks — but historical patterns strongly suggest Alaska continued to lose a moderate number of jobs through the end of 2017. Exhibit 4 shows what we believe are the most accurate Alaska employment numbers through December.

## Making online jobs data more clear

Beginning this month, we will replace the preliminary CES estimates on our Web site with our alternate QCEW-forecast based estimates and a note making that clear. Alaska's CES estimates will still be available on the BLS site, and we'll publish a link to that data on our site.

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### Regional estimates also available

This article focuses on statewide job numbers, but we also produce regional employment estimates, and the Bureau of Labor Statistics works with states to produce CES estimates for "metropolitan statistical areas." In Alaska, those are the Anchorage/Mat-Su Region and Fairbanks. (Note BLS publishes the prior as "Anchorage MSA.")

State analysts produce job estimates for other parts of the state, including Anchorage and the Southeast, Gulf Coast, Northern, Southwest, and Interior regions. We publish those estimates on our Web site (the Anchorage/Mat-Su and Fairbanks data are also on the BLS site) and revise them annually using Quarterly Census of Employment and Wages data.

<http://live.laborstats.alaska.gov/ces/>