Wages Resumed Growth Before Employment

Why some indicators turned positive as job losses continued

By NEAL FRIED

A lthough Alaska continued to lose jobs in 2017, the state's gross domestic product and personal income began to grow again that year. The two improving economic indicators, which both grew again in 2018, signaled the economy might be on the mend.

A third key economic indicator, total wages, also resumed growth in 2018, even as job losses persisted. (See exhibits 1 and 2.)

Although it might seem strange for GDP, personal income, and total wages to grow during a period of job loss, looking closer at recent years' data sheds light on how that can happen. The explanation for

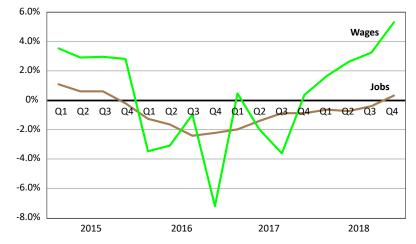
resumed growth in GDP and income is fairly straightforward, while the pattern for jobs and wages shows a more complicated relationship but makes sense in terms of how the recession progressed over the last three years.

GDP and personal income rose with oil prices, nonwork payments

In the case of state gross domestic product, the price of oil is the tail that often wags the dog. Oil prices went from \$43 per barrel in 2016 to \$54 per barrel in 2017, boosting GDP.

The reasons for the rise in personal income (the

Changes in Wages, Jobs Over Four Years 2015 to 2018, by QUARTER



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

money a person takes in from all sources) were more nuanced. Although the largest share of income comes from working, more than a third comes from other sources, including investments and transfer payments such as Social Security, Medicaid, and in Alaska's case, the Permanent Fund Dividend.

The stock market performed exceptionally well in 2017, with the Dow Jones up 25 percent. Income from transfer payments also went up that year.

In 2016, total wages fell harder than employment

The pattern for jobs and wages changed each year over the past three.

Employment and Wages by Industry During the Recession

2015 то 2018

·	2015			2016			Change in jobs	Change in total wages	2017			Change in jobs	Change in total wages
	Jobs	Total wages	Mth avg	Jobs	Total wages	Mth avg	2015-2016	2015-2016	Jobs	Total wages	Mth avg		2016-2017
Total Employment	338,574	\$18,343,850,415	\$4,515	332,177	\$17,667,325,894	\$4,432	-1.9%	-3.7%	327,963	\$17,451,502,959	\$4,434	-1.3%	-1.2%
Mining	17,146	\$2,294,834,454	\$11,153	14,249	\$1,836,258,350	\$10,739	-16.9%	-20.0%	12,829	\$1,649,127,947	\$10,712	-10.0%	-10.2%
Oil and Gas	14,169	\$1,978,174,691	\$11,634	11,303	\$1,520,917,129	\$11,213	-20.2%	-23.1%	9,753	\$1,321,118,766	\$11,288	-13.7%	-13.1%
Construction	17,680	\$1,437,170,309	\$6,774	16,247	\$1,260,060,228	\$6,463	-8.1%	-12.3%	15,162	\$1,136,196,966	\$6,245	-6.7%	-9.8%
Manufacturing	14,142	\$668,964,247	\$3,942	13,655	\$653,362,440	\$3,987	-3.4%	-2.3%	13,217	\$649,152,816	\$4,093	-3.2%	-0.6%
Wholesale Trade	6,540	\$367,064,525	\$4,677	6,469	\$361,351,701	\$4,655	-1.1%	-1.6%	6,368	\$357,732,284	\$4,681	-1.6%	-1.0%
Retail Trade	37,431	\$1,148,810,182	\$2,558	37,082	\$1,138,281,257	\$2,558	-0.9%	-0.9%	36,368	\$1,133,752,759	\$2,598	-1.9%	-0.4%
Transp and Warehousing	19,694	\$1,230,169,237	\$5,205	19,689	\$1,240,689,678	\$5,251	0.0%	0.9%	19,746	\$1,266,300,600	\$5,344	0.3%	2.1%
Utilities	2,135	\$186,673,705	\$7,286	2,120	\$180,597,013	\$7,099	-0.7%	-3.3%	2,116	\$183,512,285	\$7,227	-0.2%	1.6%
Information	6,313	\$407,038,070	\$5,373	6,293	\$395,576,049	\$5,238	-0.3%	-2.8%	5,985	\$381,543,471	\$5,312	-4.9%	-3.5%
Financial Activities	12,958	\$711,369,551	\$4,575	12,930	\$721,308,698	\$4,649	-0.2%	1.4%	12,821	\$728,504,267	\$4,735	-0.8%	1.0%
Prof and Business Svcs	29,974	\$1,891,834,199	\$5,260	28,448	\$1,749,125,682	\$5,124	-5.1%	-7.5%	27,875	\$1,715,333,781	\$5,128	-2.0%	-1.9%
Education/Health Svcs'	46,353	\$2,271,287,343	\$4,083	47,721	\$2,371,969,226	\$4,142	3.0%	4.4%	48,848	\$2,491,359,372	\$4,250	2.4%	5.0%
Health Care/Soc Asst	44,027	\$2,199,714,646	\$4,164	45,392	\$2,299,305,526	\$4,221	3.1%	4.5%	46,450	\$2,412,683,443	\$4,328	2.3%	4.9%
Leisure and Hospitality	34,942	\$809,525,818	\$1,931	35,314	\$823,536,868	\$1,943	1.1%	1.7%	35,371	\$835,719,030	\$1,969	0.2%	1.5%
Other Services	11,764	\$391,765,810	\$2,775	11,154	\$392,472,813	\$2,932	-5.2%	0.2%	11,232	\$402,265,865	\$2,985	0.7%	2.5%
Federal Government	14,955	\$1,162,962,435	\$6,480	15,198	\$1,178,859,122	\$6,464	1.6%	1.4%	15,077	\$1,197,617,759	\$6,619	-0.8%	1.6%
State Government	25,768	\$1,443,246,101	\$4,667	24,562	\$1,426,132,304	\$4,839	-4.7%	-1.2%	23,793	\$1,348,076,599	\$4,722	-3.1%	-5.5%
Local Government	39,399	\$1,854,695,268	\$3,923	39,637	\$1,870,581,700	\$3,933	0.6%	0.9%	39,728	\$1,908,829,512	\$4,004	0.2%	2.0%

		2018			Change in jobs	Change in total wages	
		Jobs	Total wages	Mth avg	2017-2018	2017-2018	
	Total Employment	326,791	\$18,018,167,759	\$4,595	-0.4%	3.2%	
	Mining	12,538	\$1,730,266,335	\$11,500	-2.3%	4.9%	
	Oil and Gas	9,364	\$1,382,122,947	\$12,300	-4.0%	4.6%	
Source: Alaska Department of Labor,	Construction	15,820	\$1,247,760,717	\$6,573	4.3%	9.8%	
Research and Analysis Section Quarterly	Manufacturing	12,622	\$648,109,058	\$4,279	-4.5%	-0.2%	
Census of Employment and Wages	Wholesale Trade	6,439	\$376,250,379	\$4,869	1.1%	5.2%	
	Retail Trade	35,816	\$1,145,349,625	\$2,665	-1.5%	1.0%	
	Transportation	20,062	\$1,345,304,382	\$5,588	1.6%	6.2%	
	Utilities	2,194	\$208,789,354	\$7,930	3.7%	13.8%	
	Information	5,617	\$364,183,190	\$5,403	-6.1%	-4.6%	
	Financial Activities	12,387	\$733,412,940	\$4,934	-3.4%	0.7%	
	Professional and Business Services	27,280	\$1,710,515,079	\$5,225	-2.1%	-0.3%	
	Education and Health Services	49,558	\$2,638,779,476	\$4,437	1.5%	5.9%	
	Health Care and Social Assistance	47,122	\$2,557,355,623	\$4,523	1.4%	6.0%	
	Leisure and Hospitality	35,573	\$867,739,910	\$2,033	0.6%	3.8%	
	Other Services	11,181	\$407,036,141	\$3,034	-0.5%	1.2%	
	Federal Government	14,868	\$1,220,362,429	\$6,840	-1.4%	1.9%	
	State Government	23,599	\$1,353,673,667	\$4,780	-0.8%	0.4%	
	Local Government	39,604	\$1,961,978,138	\$4,128	-0.3%	2.8%	

Overall, Alaska lost about 6,400 jobs in 2016, another 4,200 in 2017, and 1,200 in 2018. (See Exhibit 2.)

In 2016, total wages fell harder than total employment, as most of the jobs lost were in the high-wage oil and gas, construction, state government, and professional and business services sectors. The biggest loser in 2016 was the oil industry, where the average monthly wage was \$11,213 compared to \$4,432 for all industries. Construction, with an average monthly wage of \$6,463, was the second-largest job loser.

In 2017, percent losses in jobs and wages were about the same

In 2017, the same high-wage industries continued to lose jobs, but the losses slowed. A growing number of lost jobs that year came from manufacturing, retail, and other industries with lower-than-average monthly wages. As a result, the loss in total wages moderated, making the percentages of jobs and wages lost in 2017 nearly identical.

In 2018, wages began to grow but employment continued to fall

The pattern changed in a less predictable way in 2018. Wages began growing again in the first quarter, and growth accelerated over the next three quarters even as the state continued to lose jobs.

Employment losses moderated considerably in 2018, however, and the fourth quarter showed slight growth. Even more than the year before, 2018's job losses came from lower-wage industries such as retail and manufacturing, and fewer were from high-wage industries. (See Exhibit 2.)

Another big change was in the construction industry.

After two years of extensive loss, construction began to grow again. This high-wage industry had been a big contributor to the overall wage losses over the two prior years, so its resumed growth pushed total wages deeply into the black in 2018.

Other possible reasons for increasing wage growth

Although the oil industry continued to lose jobs in 2018, its total wages grew by 4.6 percent. A number of reasons are likely, including larger bonuses or more total hours worked. The job mix could also have changed in favor of more higher-wage jobs.

Raises are another possibility. Although Alaska's oil industry was still contracting in 2018, which doesn't usually signal a positive environment for raises, nationally the industry began to recover in 2017 and was having a hard time finding workers. Under those conditions, Alaska's oil industry had to stay competitive to keep its workforce, which likely pushed wages higher.

It's also important to remember a number of industries largely escaped the ravages of the recession, including the mining industry, those linked to tourism, and federal government. In the normal course of employment, a large share of the workforce receives raises over the long term, and after three years the cumulative effects would contribute to an overall increase in wages.

Any conversation about the change in wages over time should include inflation. Until 2018, Alaska's inflation rate was very low — under 1 percent from 2015 to 2017. It jumped to 3 percent in 2018, which muted that year's real wage gains.

Neal Fried is an economist in Anchorage. Reach him at (907) 269-4861 or neal.fried@alaska.gov.