

Setting the stage

Let's quickly look at where this oil decline has left the state

What about Alaska's important economic base?

Why have some states recovered?

Aggregate relationship between oil prices and employment

Where does this leave us?

How do oil prices influence Alaska and other energy-dependent states?

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Presentation for

2018 Alaska Chamber Fall Forum

10/24/2018

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- The Alaska economy is heavily dependent on the oil sector both in terms of private sector jobs and government funding.

Why is the state in trouble?

Before the end of 2014, oil prices were elevated for a long period of time when the price exceeded \$100 for multiple months. However, starting June 2014, oil prices experienced a deep drop averaging only \$54.26 in the 4 years since. This is much lower than the \$84.47 they averaged between 2006 and July 2014.

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When did the economy feel the effects of the oil price decline?

While oil prices started declining in June of 2014, the first month of negative employment growth did not occur until October 2015. **The state has essentially lost jobs in every month since that initial decline.** This has also resulted in a precipitous drop in government revenues, which has forced the state to use savings to fill the fiscal gap.

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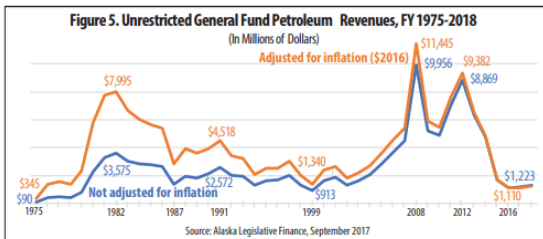
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Where does this leave us?

In one picture



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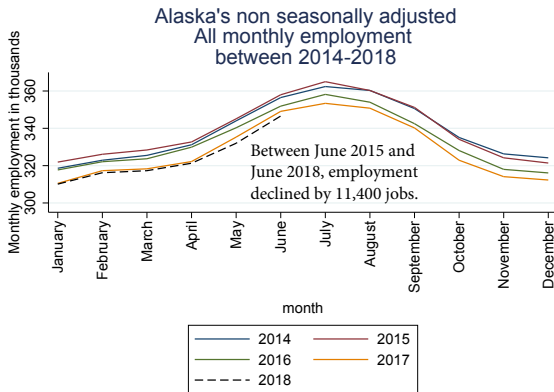
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Summary takeaway



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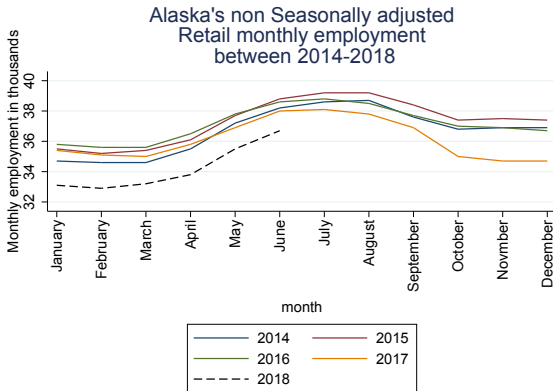
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Source of current weakness



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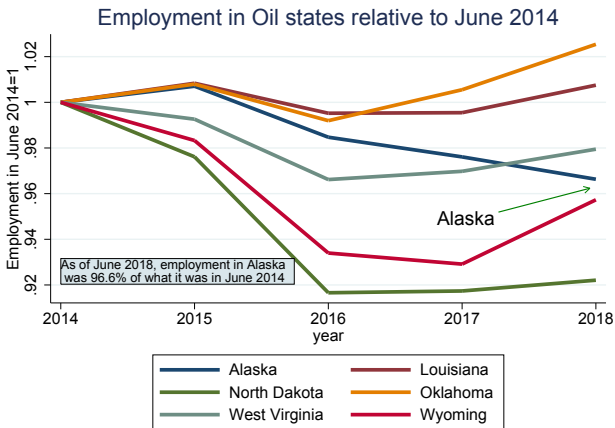
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Where does this leave us?

Overall employment relative to other energy states



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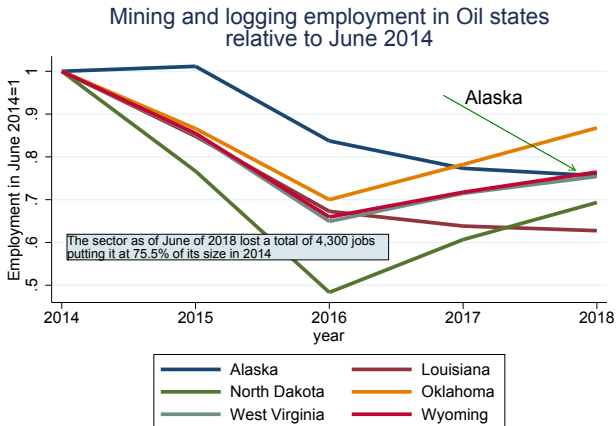
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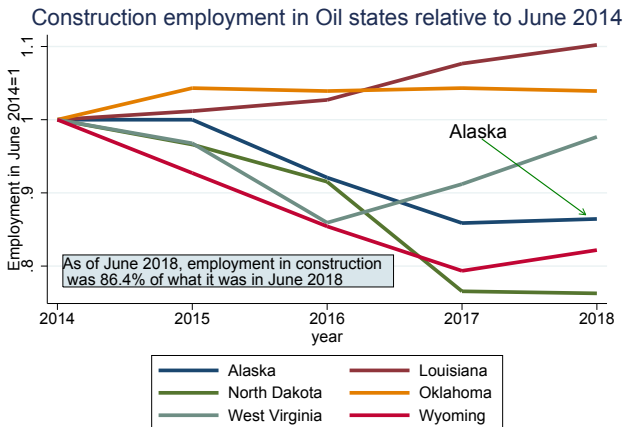
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Where does this leave us?

What about construction?



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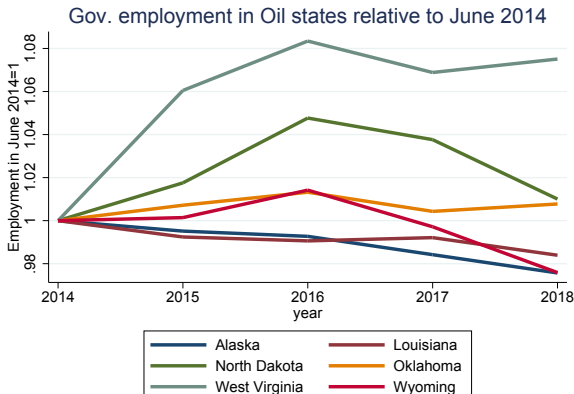
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Was government employment affected?

- Alaska's government employment went from 83,100 in June 2014 to 80,300 in June 2018



Let's compare the job losses across the energy states

- During the 1980's recession Wage and salary employment declined by **3.67%** in the 1986 and another **3.79%** in 1987. That totaled almost 19,000 jobs from what was a 260,000 private sector economy.

State	Cumulative declines	Share of overall employment decline
Alaska (Oct 2015 to Oct 2017)	11,200	3.46%
Louisiana (Oct 2015 to Oct 2017)	25,900	1.30%
North Dakota (May 2015 to May 2018)	25,200	5.79%
Oklahoma (January 2016 to January 2017)	17,900	1.11%
Wyoming (May 2015 to May 2017)	14,000	4.94%

Length of the recession by state

- North Dakota, Alaska, and Wyoming have had the longest recessions.

State	Consecutive months of year over year declines	First month of negative growth
Alaska	34	October 2015
Arkansas	0	N.A
Colorado	0	N.A
Kansas	2	December 2015
Louisiana	21	September 2015
Montana	0	N.A
New Mexico	2	October 2016
North Dakota ⁵	37	May 2015
Oklahoma	18	November 2015
Texas	0	N.A
Utah	0	N.A
Wyoming	27	May 2015

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Has the recession ended everywhere?

- Louisiana, Wyoming, and Oklahoma have all had multiple months of positive growth.

State	Recession has ended?	First month of positive growth	N. of positive months
Alaska	No	N.A	
Louisiana	Yes	October 2017	10
North Dakota	Maybe	June 2018	
Oklahoma	Yes	May 2017	15
Wyoming	Yes	August 2017	12

Did people leave?

- The table below show net migration from each of the energy-dependent states using IRS data.
- Alaska has had fewer people moving in than moving out since 2012.

State	2011	2012	2013	2014	2015	2016	2017
Alaska	702	-434	-2,178	-8,022	-5,077	-2,557	-8,381
Louisiana	6,119	5,498	4,203	1,434	915	-5,020	-19,819
North Dakota	6,174	11,654	18,051	10,264	11,733	-4,684	-5,164
Oklahoma	12,103	14,661	19,024	10,068	15,466	2,894	-3,148
Wyoming	485	5,964	2,941	-2,187	-1,224	-3,823	-8,285

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Share of GDP coming from oil

State	2010	2011	2012	2013	2014	2015	2016	2017
Alaska	31.8%	35.2%	35.19%	32.61%	28.63%	18.63%	15.28%	18.59%
Arkansas	3.03%	3.64%	3.14%	3.35%	3.47%	2.12%	1.43%	1.40%
Colorado	5.08%	5.73%	5.21%	5.60%	6.32%	4.26%	3.17%	3.79%
Kansas	1.65%	1.78%	1.86%	1.91%	1.79%	0.97%	0.63%	0.71%
Louisiana	9.31%	9.78%	8.97%	8.13%	7.43%	4.92%	3.90%	4.66%
Montana	6.54%	7.42%	7.37%	7.13%	6.36%	4.89%	4.06%	4.03%
New Mexico	10.45%	12.11%	11.90%	13.20%	13.85%	10.06%	8.07%	9.96%
North Dakota	8.36%	12.64%	16.33%	17.95%	18.35%	12.29%	9.03%	11.72%
Oklahoma	13.16%	15.95%	14.51%	18.12%	19.62%	13.82%	10.22%	12.09%
Texas	10.71%	12.12%	12.61%	13.96%	14.55%	9.34%	6.95%	8.46%
Utah	3.67%	4.07%	3.66%	3.47%	3.55%	2.09%	1.64%	1.75%
West Virginia	14.5%	16.59%	13.4%	14.0%	14.11%	11.58%	10.24%	12.87%
Wyoming	34.6%	35.18%	29.27%	28.86%	26.9%	21.25%	19.85%	23.33%

- Stickiness of oil shocks varies from state to state. For example, Wyoming and North Dakota are more sensitive to negative shocks than they are to positive ones.
- The oil dependence, as measured by the share of GDP coming from Oil and Gas and Mining varies greatly across these 13 states. Alaska, Wyoming, Oklahoma, and North Dakota are the four states most dependent on the oil sector. In 2014, they had 28.63%, 26.9%, 19.62%, and 18.35% of the value produced coming from the sector.

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- The share of government revenues coming from oil specific taxes varies a great deal.
- Non oil sectors were much more robust in other states.

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What else can we say about the relationship between oil prices and employment?

- We assess how fluctuations in oil prices over the period from 1991 to 2018 affect monthly employment changes.
- We calculate that a **10% change** in oil prices results in a **1.7% change** in employment across these oil dependent states in the long run. For Alaska, using 2018 employment numbers, that would amount to about **4,515 increase in jobs** as a result of a 10% increase in oil prices.

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- We show that the current recession has slowed but we are **far from a full recovery** as employment levels are considerably below where they were four years ago.
- It does, however, appear that **Oil and Gas, Professional and Business services, and Construction** have stabilized.
- **Oklahoma and Louisiana** had shorter bouts of negative growth and have had fairly robust recoveries. **North Dakota, Wyoming, and Alaska** have had the longest and deepest recessions.

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- Government employment is an important part of the Alaska economy. As of June 2018, federal/State/local employment combined to be 80,300 as of June 2018.
- This most recession which started in October 2015 has cost the state between 12,500 and 13,000 jobs.
- Capital spending is a very important driver of construction activity but has been bare bones for multiple years.
- The state has also used a significant portion of its savings to fill the gap created by the loss of oil revenues.

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Dare to provide thoughts on the future?

- The future of Alaska economic development will rest on the success of the traditional basic sectors and the pursuit of new opportunities.
- Most importantly, it will depend on whether the state can address its leaky bucket by ensuring that more of the value generated in Alaska stays in state.
- That will require evaluating opportunities where import substitution is possible and ensuring there is a qualified workforce that can take advantage of employment opportunities.

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What about diversification?

- It is important to separate revenue diversification from economic diversification.
- The recent decision to use the earnings reserve to fund a portion of government should make the state revenues more resilient to future oil price declines.
- The Alaska disconnect will eventually need to be addressed.

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Thank you

Thank You

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