



Alaska Snapshot

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What's Happened to the Alaska Economy Since Oil Prices Dropped?

By Mouhcine Guettabi

North Slope oil has paid for most of Alaska state government—and indirectly, a big share of local government—since the 1980s. It's also been the backbone for much of Alaska's economic growth over time. But today, a combination of declining oil production and sharply lower oil prices has left the state budget billions of dollars in the red and is reverberating throughout the economy.

How has the big drop in oil prices affected the Alaska economy so far? This paper looks at that question, using changes in the number of jobs—statewide, and also by census area and sector—as a gauge. We look specifically at the period from March 2014, when oil prices were over \$100 a barrel, through March 2016, when prices had dropped below \$40.

We use that period because right now reliable employment data are only available through the first quarter of 2016. Also, this is a broad look at job changes, not a detailed analysis of all the specific changes we found.

WHAT DID WE FIND?

• *Alaska lost close to 1% of its jobs from March 2014 to March 2016, dropping from 326,023 to 323,762—down 2,261 jobs. Those losses could reach 2% by the end of 2016 (Figure 1).*

• *Job losses during the first year of falling oil prices were small, because many projects were underway and had to be completed. Also, the state's generous capital budgets of 2012, 2013, and 2014 were still making their way into the economy.*

• *Even though Alaska lost jobs overall, some sectors and some areas added jobs during the study period.*

• *State government and private industry were hardest hit through March 2016, with the state government losing nearly 1,700 jobs and private industry 1,518. By contrast, local governments (which include school districts) added nearly 800 jobs, and the number of federal civilian jobs was up about 165 (Figure 2).*

• *Among private industries, the oil and gas sector lost the most jobs—more than 1,600—but professional and business services followed close behind, dropping nearly 1,400 jobs (Figure 6). These losses of professional and business service jobs reflect a weakening business environment, as the oil industry and the state government spent less money in the economy.*

• *The health-care sector, which has grown rapidly for years, continued to grow in the study period, adding more than 1,400 jobs (Figure 6).*

This is the first in a series of short papers that will examine economic and fiscal issues important to Alaska.

• *About 60% of boroughs and census areas lost jobs, with Anchorage losing the largest number—nearly 1,500, or about 1%. But other areas with fewer total jobs lost bigger percentages, with some losing 5% or more (Figure 7).*

• *The Mat-Su Borough, which has seen rapid growth for years, added more than 1,100 jobs—an increase of 5%. Several other areas also added jobs, mostly in modest numbers (Figure 7).*

• *An estimated one-third of local government revenues come from state government, and in some areas local government jobs make up half of all jobs (Figures 8 and 9). That dependence raises questions about the vulnerability of local governments as the state tries to balance its budget.*

• *Whatever the state does to balance its budget will cost Alaska jobs in the short-run, but some kinds of actions would cost more jobs than others.¹ And to build a healthy economy for the long run, the state needs to balance the budget.*

Figure 1. Annual Percentage Changes in Alaska Jobs,* 2005-2016

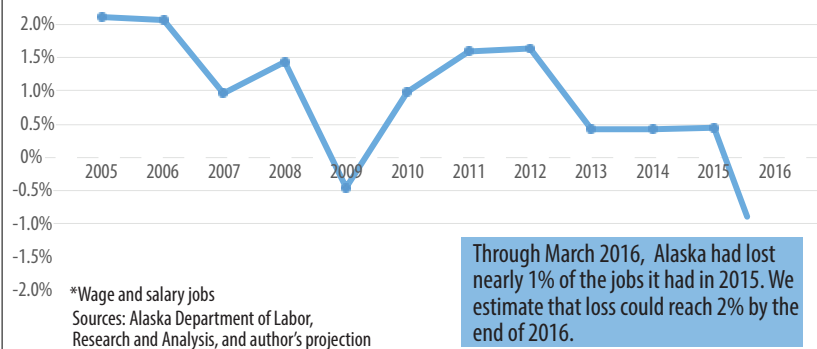
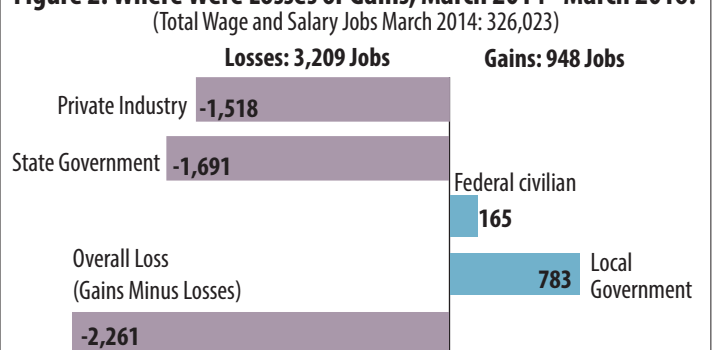


Figure 2. Where Were Losses or Gains, March 2014 - March 2016?



WHICH JOBS ARE WE TALKING ABOUT?

When we talk about changes in employment, we specifically mean changes in numbers of wage and salary jobs in Alaska. These numbers do not include the more than 20,000 active-duty military personnel in Alaska, or the tens of thousands of self-employed people, including fishermen.

WHAT CAUSED THE PROBLEM?

As Figure 3 makes plain, Alaska has relied almost entirely on oil revenues to pay for general government operations. Those revenues are made up not only of taxes but also royalty payments, which the state government collects because the Prudhoe Bay oil field and surrounding oil fields are on state-owned land.

Oil revenues made up 90% of the unrestricted General Fund revenues the state collected from 2005 to 2014. And those revenues started getting much bigger in late 2007, when oil prices began climbing and stayed near or above \$100 a barrel for much of the time through summer 2014.

But prices took a steep fall in late 2014, and in January 2016 sank to about \$30 a barrel before recovering to around \$45 in September. Those falling oil prices curtailed oil-industry activity and left the state budget billions of dollars in the red.

HOW DO OIL PRICES AND ACTIVITY AFFECT THE ECONOMY?

Oil prices and oil activity affect the Alaska economy and jobs in two broad ways—through private employment and through government spending of oil revenues.

The effects on private employment can be divided into three kinds. The first, and most obvious, is direct employment in the oil and gas sector. The second is through jobs created when oil and gas firms buy things from other Alaska companies, in many different sectors. The third is through jobs created when workers in the oil and gas sector spend their paychecks in the economy.

The state government affects the economy by spending the revenues it collects from oil. The government activities financed by these revenues support jobs not only in the state government, but also in local government and the private sector. It's easy to understand how state government jobs depend on the state budget, but the effects of state oil revenues on local government and private jobs may be less clear.

As Figure 9 shows, local governments in recent years have depended on the state government for around 1 in 3 dollars of their total revenues. In the private sector, the state government supports jobs in two ways—by contracting with and making purchases from Alaska companies, and through state employees, who spend their paychecks for goods and services that private businesses supply.

Figure 3. Oil Revenues as Share of General Fund*
(Average 2005-2014)

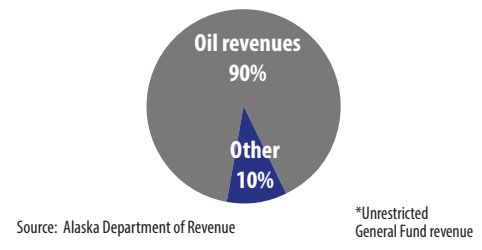
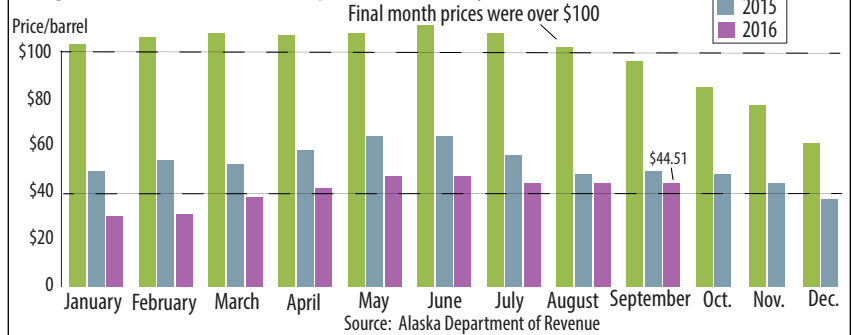


Figure 4. Alaska North Slope Oil Prices, by Month, 2014-2016



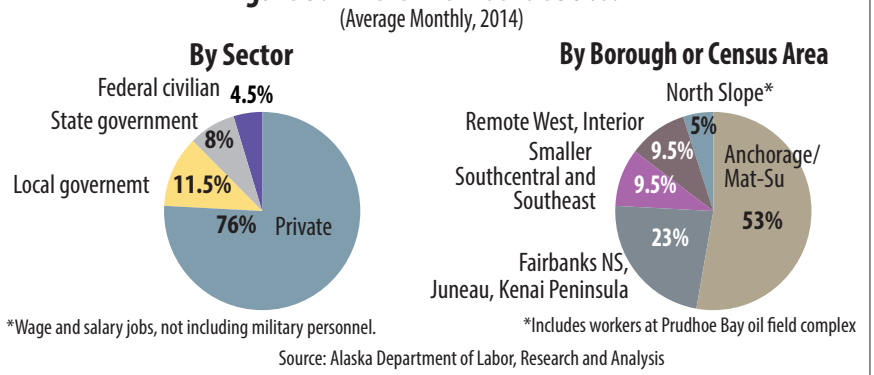
WHERE ARE ALASKA'S JOBS?

It's clear why declining oil prices are hard on the Alaska economy. But before we look at recent job changes by sector and by region, it's helpful to see the big picture of where Alaska's jobs are, by sector and by area.

The left side of Figure 5 shows that about 76% of wage and salary jobs were in private industry in 2014. Among governments, local governments employed the most people (including employees of school districts), accounting for about 11.5% of jobs. State government workers made up 8% of workers, and federal civilian employees another 4.5%.

Alaska's jobs are concentrated in a few areas, with jobs in the Anchorage and adjoining Mat-Su Borough making up more than half of all jobs, and the Fairbanks North Star, Juneau, and Kenai Peninsula boroughs accounting for almost one-quarter. Less-populated areas of Southcentral and Southeast Alaska have close to 10% of jobs. The large, remote areas of Western and Interior Alaska that make up much of the state's land mass have less than 10% of the jobs.

Figure 5. Where Are Alaska's Jobs?*



WHICH PRIVATE SECTORS HAVE BEEN HARDEST HIT?

The private sectors that saw the largest declines through March 2016 are oil and gas—as we might expect—followed by professional and business services, construction, and other kinds of services.

With less money in the economy, there is less demand for many services. The weakening business environment generally leads businesses to trim their temporary staffs, cut advertising expenses, and curtail investments in information technology. Of the 1,367 professional and business services jobs lost, about 60% were in positions ranging from legal services to engineering to tech consulting.

By contrast, strong growth continued in the health-care sector, which added more than 1,400 jobs. The numbers of jobs in transportation and utilities, leisure and hospitality, and manufacturing (which in Alaska consists mainly of seafood processing) were also up, but not by as much.

HOW HAVE REGIONS OF THE STATE FARED?

The picture of job losses or gains by census area is mixed. The map below shows losses or gains by percentages—which in areas with fewer jobs can move up or down with relatively small changes in the actual number of jobs. The losses or gains in numbers of jobs are shown in the bar graphs.

Figure 6. Job Losses and Gains in Alaska's Private Sector, March 2014-March 2016

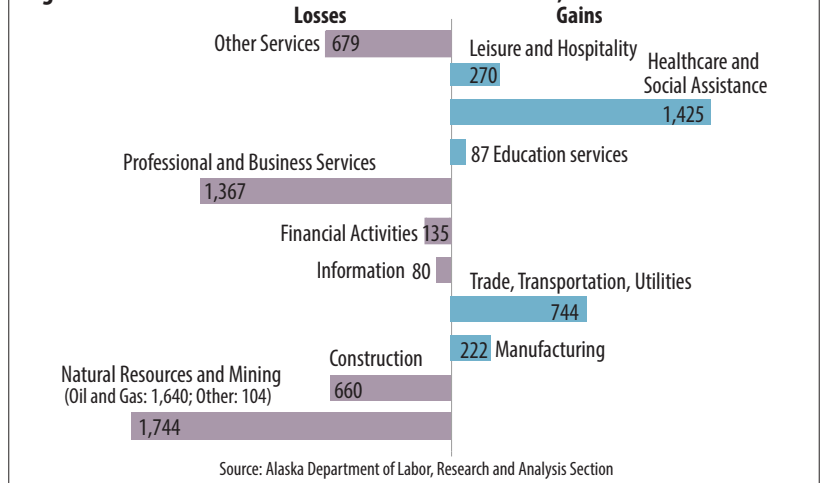
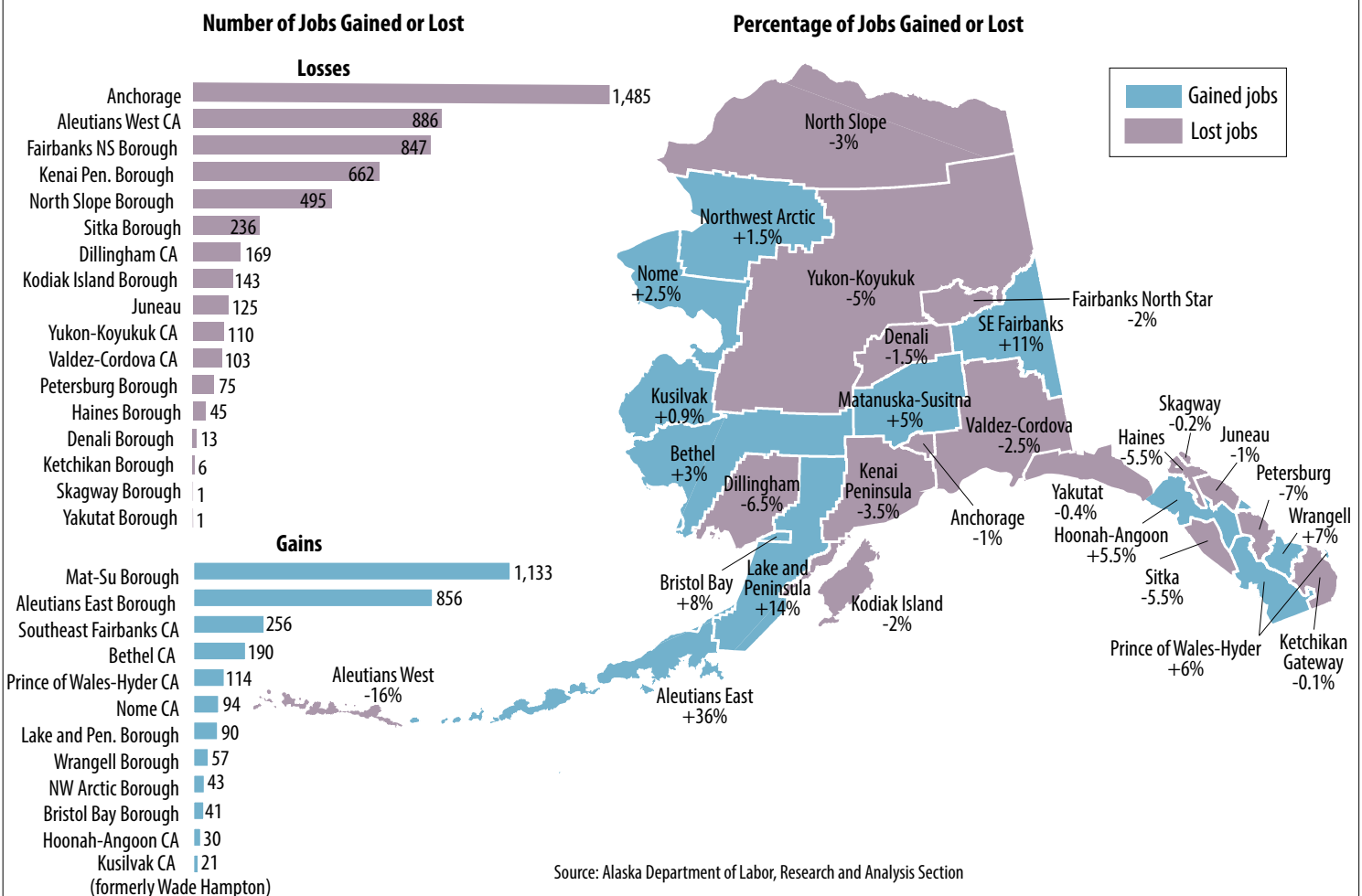


Table 1 on the following page helps put the changes in context, by showing the total number of jobs in each area. It also shows losses or gains in private industry and state, local, and federal governments in each census area.

Figure 7. Job Gains or Losses, By Borough or Census Area, March 2014 to March 2016



JOB LOSSES AND GAINS BY CENSUS AREA AND SECTOR

Most areas lost private and state government jobs, but about a dozen—most notably the Mat-Su Borough—added private jobs (Table 1).

Some areas added federal jobs, but numbers in many areas changed little. Local governments in 20 of the 29 census areas added jobs during the study period. The biggest decline was in the Fairbanks North Star Borough, which dropped nearly 200 local government jobs.

HOW MANY JOBS ARE IN THE MOST VULNERABLE SECTORS?

As we've seen, the sectors most vulnerable to job losses through March 2016 were state government, natural resources (mainly oil and gas), professional and business services, and construction. We've also shown that while many local governments added jobs during the study period, they depend heavily on state money and could be vulnerable as time goes on. Table 2 shows what percentages of jobs in each census area are in those vulnerable sectors.

**Table 1. Jobs Losses or Gains In Alaska's Boroughs and Census Areas, By Sector
March 2014 to March 2016**

Loss or Gain by Sector, March 2014-March 2016						
	Total Jobs in 2014	Private	State Gov.	Federal Gov.	Local Gov.	All Sectors
Aleutians East	2,087	893	-4	-2	-31	856
Aleutians West	4,146	-839	-10	-25	-12	-886
Anchorage	155,034	-1,133	-582	64	166	-1,485
Bethel	6,927	101	-33	2	120	190
Bristol Bay	1,420	32	-1	-2	12	41
Denali Borough	2,053	-3	0	-12	2	-13
Dillingham Borough	2,654	-98	-2	-1	-68	-169
Fairbanks NS Borough	38,371	-351	-418	105	-183	-847
Haines	989	-32	-4	1	-10	-45
Hoonah-Angoon Census Area	759	20	-1	0	11	30
Juneau	17,980	169	-364	-13	83	-125
Kenai Peninsula Borough	20,782	-720	-16	-6	80	-662
Ketchikan Gateway Borough	7,400	176	-92	-11	-79	-6
Kodiak Island Borough	6,434	-108	-28	-12	5	-143
Kusilvak Census Area (formerly Wade Hampton CA)	2,425	-12	14	-6	25	21
Lake and Peninsula Borough	799	49	-1	-2	44	90
Matanuska-Susitna Borough	22,285	906	21	31	175	1,133
Nome Census Area	3,911	-63	-12	0	169	94
North Slope Borough	15,785	-637	-11	1	152	-495
NW Arctic Borough	2,887	36	-17	-7	31	43
Petersburg Borough	1,437	-85	2	-2	10	-75
Prince of Wales Census Area	2,140	32	1	-5	86	114
Sitka Borough	4,535	-157	-41	-1	-37	-236
Skagway Borough	1,006	4	-3	1	-3	-1
SE Fairbanks Census Area	2,398	223	9	-2	26	256
Valdez-Cordova Census Area	4,839	-58	-54	1	8	-103
Wrangell Borough	860	80	-3	0	-20	57
Yakutat Borough	296	-10	-5	-1	15	-1
Yukon-Koyukuk Census Area	2,275	-87	-28	-1	6	-110

Source: Alaska Department of Labor, Research and Analysis Section

- In most census areas, relatively small shares of jobs are in natural resources. The biggest exception is the North Slope Borough, which includes the Prudhoe Bay and adjoining oil fields.
- Construction accounts for less than 5% of jobs in most areas.
- Professional services make up less than 10% of jobs in all areas except Anchorage and the North Slope, where they account for 13%.
- Juneau depends on state government for 24% of its jobs and Fairbanks for 14%. But in other areas the share is between 1% and 9%.

• Many areas—especially remote, rural ones—depend a lot on local government. In a few areas, local government jobs make up half or more of all jobs, and in many other areas a quarter or a third. Only in Anchorage and the Fairbanks and Denali boroughs does the share fall below 10%.

Figure 8 on the next page shows the percentages of total jobs by area that are in local government, in descending order.

**Table 2. What Share of Jobs, by Census Areas, Are in the Most Vulnerable Sectors?
(Average Percent of Employment in Vulnerable Sectors, 2014)**

	Natural Resources Mining	Construction	Professional and Business Services	State Gov.	Local Gov.	Total Without Local Gov.	Total With Local Gov.
Aleutians East	NA	NA	1%	1%	13%	2%	15%
Aleutians West	1%	1%	4%	1%	12%	7%	19%
Anchorage	2%	5%	13%	7%	6%	27%	33%
Bethel	NA	1%	1%	5%	37%	7%	44%
Bristol Bay	NA	3%	2%	2%	12%	6%	18%
Denali Borough	NA	NA	7%	1%	6%	8%	14%
Dillingham Borough	NA	0%	1%	4%	23%	6%	28%
Fairbanks	4%	7%	6%	14%	8%	30%	39%
Haines	NA	NA	2%	4%	15%	7%	22%
Hoonah-Angoon Census Area	NA	3%	NA	2%	34%	5%	38%
Juneau	5%	4%	6%	24%	11%	38%	49%
Kenai Peninsula Borough	7%	5%	4%	6%	16%	22%	38%
Ketchikan Gateway Borough	2%	5%	3%	9%	15%	19%	35%
Kodiak Island Borough	3%	4%	4%	4%	13%	15%	28%
Kusilvak Census Area (formerly Wade Hampton CA)	NA	NA	NA	1%	66%	1%	67%
Lake and Peninsula Borough	NA	4%	NA	1%	49%	5%	53%
Matanuska-Susitna Borough	1%	8%	6%	7%	15%	22%	37%
Nome Census Area	NA	2%	4%	6%	36%	12%	48%
North Slope Borough	57%	2%	13%	0%	12%	72%	84%
NW Arctic Borough	NA	NA	NA	3%	35%	3%	38%
Petersburg Borough	3%	3%	3%	3%	25%	11%	36%
Prince of Wales Census Area	6%	3%	2%	2%	43%	12%	55%
Sitka Borough	NA	NA	4%	8%	15%	12%	27%
Skagway Borough	NA	NA	NA	1%	12%	1%	13%
SE Fairbanks Census Area	19%	3%	9%	5%	12%	36%	48%
Valdez-Cordova Census Area	3%	3%	6%	7%	17%	19%	36%
Wrangell Borough	NA	3%	1%	3%	29%	7%	35%
Yakutat Borough	NA	NA	NA	5%	32%	5%	37%
Yukon-Koyukuk Census Area	NA	NA	NA	5%	56%	5%	61%

Source: Alaska Department of Labor, Research and Analysis Section.

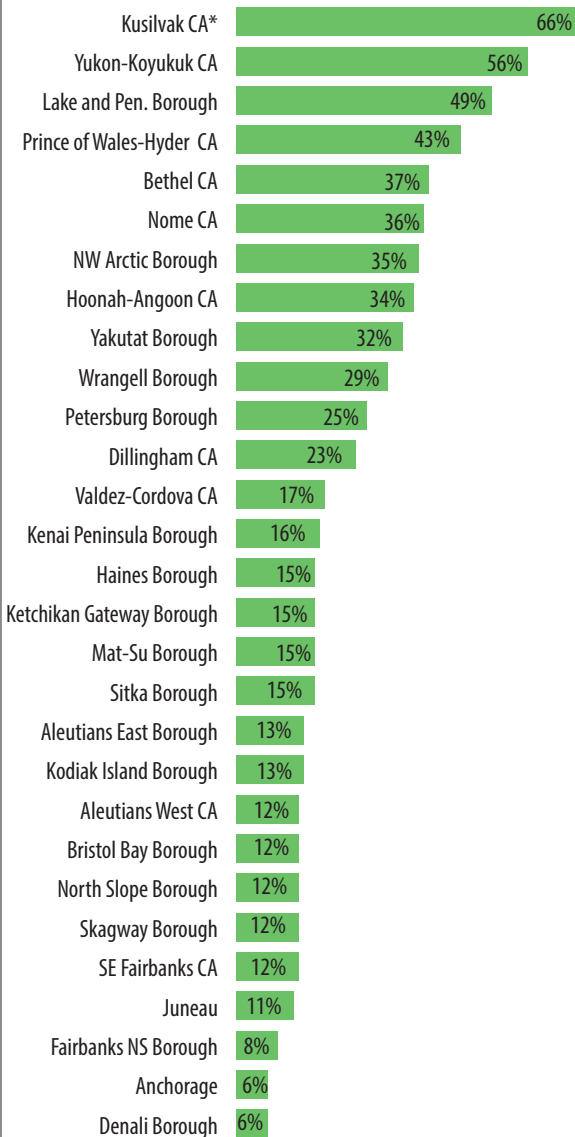
How Vulnerable Are Local Governments?

Figure 8 takes the local-government percentages from Table 2 and puts them in descending order.

Kusilvak census area in Western Alaska is at the top, with two-thirds of all its jobs in local government. In the Lake and Peninsula Borough on the Alaska Peninsula and the Yukon-Koyukuk area in the Interior, local government provides about half the jobs.

The percentage in other areas is smaller, but in many it is still around a third. Only in a handful of areas does the share fall around or below 10%.

Figure 8. Local Government Jobs as a Share of Total Jobs, by Borough or Census Area (2014)



*Formerly Wade Hampton

Source: Alaska Department of Labor, Research and Analysis

Figure 9. Estimated Percentage of Local Government Revenue from the State*



* Author's estimate based on audited reports local governments submit to Alaska Department of Commerce, Community and Economic Development. Information for some governments is incomplete or reported inconsistently.

Figure 9 shows why these percentages are worrisome for local governments: we estimate that on average in recent years local governments got a third of their revenues from the state government—which now has a shortfall in the billions of dollars.

Already the state has moved to cut aid to local governments—and it's likely local governments around Alaska will feel the pinch as the state moves to balance its budget.

LOOKING AHEAD

When oil prices started declining in August 2014, the economic response was slow at first, partly because there was still money in the economy from the state's big capital budgets in the years of high oil prices.

Initially the sectors most affected were oil and gas and the state government, but by March 2016 the losses had made their way into the construction and professional and business services sectors. That indicates the weakening business environment, because these services are sensitive to changes in confidence in the economy.

Going forward, we expect the economy to continue shedding jobs, perhaps 2% by the end of 2016 and another 1.5% in 2017. The decline will spread to the other service and support sectors.

The severity and length of the economic slowdown will depend on the multiplier effect of declines we've already seen—the indirect effects of direct job losses on additional jobs—coupled with consumer confidence, and also on legislative decisions about how to balance the state budget.

Budget cuts or new taxes could potentially exacerbate the strain on the economy in the short run.² But steps toward balancing the budget are inevitable—and in the long run a balanced budget will make Alaska's economy stronger.

ENDNOTES

1. See *Short-Run Economic Impacts of Alaska Fiscal Options*, by Gunnar Knapp, Matthew Berman, and Mouhcine Guettabi, March 2016, for estimates of job and income losses resulting from various ways the state might balance the budget. Available on ISER's website, www.iser.uaa.alaska.edu.

2. See note above.

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